

PROCEEDINGS OF THE
2ND INTERNATIONAL CONFERENCE ON
**TRANSFORMATION
OF BUSINESS FOR A
CIRCULAR ECONOMY**

13 & 14, DEC 2023

Organised by



**FAROOK INSTITUTE OF
MANAGEMENT STUDIES**

(Promoted by Farook College - Estd in 1948)

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PREFACE

We are delighted to present the proceedings of the International Conference on the “Transformation of Business for a Circular Economy,” organized by the Farook Institute of Management Studies in collaboration with Saxion University of Applied Sciences, The Netherlands. Held on the 13th and 14th of December 2023, this conference brought together a diverse array of thought leaders, scholars, students, and professionals who share a common passion for advancing the principles and practices of circular economy in business.

The conference served as a dynamic platform for intellectual exchange, collaboration, and learning. Participants from India and Europe engaged in lively discussions, sharing valuable insights, research findings, and best practices aimed at catalyzing the transition towards a circular economy. Through keynote speeches, panel sessions, paper presentations, and interactive workshops, attendees explored diverse facets of circularity, spanning business models, policy frameworks, technological innovations, and societal implications.

We extend our sincere gratitude to all the keynote speakers, session chairs, paper presenters, and attendees whose contributions enriched the conference and elevated the discourse on sustainability and business transformation. Special thanks are due to our partners, Saxion University of Applied Sciences, for their invaluable support and collaboration in organizing this event. As we embark on the journey towards a more sustainable future, the insights and recommendations generated through this conference hold immense significance. By harnessing the collective wisdom and ingenuity of diverse stakeholders, we can pave the way for a more equitable, resilient, and regenerative economy.

We hope that this volume of proceedings will serve as a lasting resource for researchers, policymakers, practitioners, and students committed to advancing the principles of circularity in business and society. May the ideas shared within these pages inspire action, foster innovation, and propel us towards a future where prosperity is harmonized with planetary well-being.

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AN INVESTIGATION INTO THE INTERPLAY BETWEEN SUSTAINABLE COSMETICS, COLOUR THEORY AND PACKAGING DESIGN

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ABSTRACT

This study explores the dynamic relationship between sustainable cosmetics, color theory, and packaging design, highlighting the interconnected nature of these elements in the context of contemporary consumer preferences and environmental consciousness. Through an analysis of current industry practices and academic literature, this research investigates the role of sustainable packaging materials and strategic color selection in enhancing brand identity, consumer engagement, and environmental sustainability within the cosmetics industry. By examining the psychological influences of color on consumer perceptions and behaviors, this study underscores the importance of integrating eco-friendly packaging with color psychology to create visually compelling products that resonate with environmentally conscious consumers. The findings emphasize the potential for sustainable packaging and thoughtful color choices to not only reinforce brand messaging but also contribute to the broader goals of sustainability and responsible consumption in the cosmetics sector.

Keywords: Sustainable Cosmetics, Color Theory, Packaging Design, Consumer Preference, Brand Identity Color Psychology, Responsible Consumption.

INTRODUCTION

Sustainability has turned into the most urgent issue of the present. On one hand, resources are getting depleted at an alarming rate while on the other; the world population is growing rapidly. This has put immense pressure on manufacturing concerns that are a major source of contributors to energy and resource consumption. The changing landscape of the business environment has begun to shift its focus toward sustainability issues that are a rising concern for every individual. Most businesses have started taking these issues on a serious note and the cosmetics industry is no exception to it. Sustainability is the term that refers to the ability to meet the needs of the present without compromising on the ability of future generations to meet their own needs. The challenges that are related to the ability to maintain ecological balance have a wide range of economic, social, and environmental factors that contribute towards sustainability issues. With the growing use of the internet and mobile devices, consumers have become very well-informed about the products that they use. This ethical consumption has increasingly gained momentum in recent years. Consumers are seeking products that are not only good for them, but also for the planet.

FACTORS OF GREEN CONSUMER BEHAVIOUR

Sustainable cosmetics are those beauty products that are focused on reducing the environmental and social impact of their products from cradle to grave, if not in some phases of their lifecycle at least. The elements of sustainability might touch upon multiple facets of the product lifecycle such

as ingredient sourcing, certifications, cruelty-free practices, green technology, energy optimization, waste disposal, and consumer education, to name a few. Various factors drive consumers towards sustainable beauty products. The ones that are investigated in detail in this research are Product Dimension, Colour Theory Dimension, and Sustainable Packaging Dimension

PRODUCT DIMENSION

This factor revolves around the various elements that relate to the product itself. It comes into play right from the birth of the product and deals with the ingredients, formulation, and testing phase. It ensures that the product has sustainability intertwined in its essence.

COLOUR THEORY DIMENSION

Color theory is the study of how color influences the purchase decisions of end users. It plays a subtle yet important role in the sustainability efforts of the cosmetics sector in particular. It involves the usage of natural and earthy colors in the product, minimalistic aesthetics, and green symbolism of sustainable beauty products

SUSTAINABLE PACKAGING FACTOR

Packaging plays a pivotal role in marketing any product, with sustainable cosmetics requiring packaging that effectively communicates eco-friendliness. The usage of sustainable packaging material, labeling on the package, and its due impact are elements that are worthy of being studied in detail.

The aforementioned factors are inclusive but not exhaustive. There are a host of other factors and elements that might drive a consumer towards beauty products that are sustainable in nature.

REVIEW OF LITERATURE STUDIES ON GEN Z AND GEN Y

Sustainability has emerged as a paramount consideration in consumers' purchasing decisions, notably pronounced among Generation Z, born from the mid to late 1990s until the early 2010s. This cohort directly confronts the tangible consequences of climate change and environmental degradation, leading to a distinctive inclination towards ethical consumerism.

A United Kingdom-based study by **Tsaabitah (2022)** unearthed key drivers influencing the acquisition of green skincare products, primarily revolving around altruistic motivations and safety values. Additionally, subjective norms, price consciousness, and environmental concerns exerted positive influences on the intention to purchase sustainable skincare items. The study employed the Theory of Planned Behavior (TPB), yielding insightful outcomes. Notably, a crucial observation surfaced – contrary to expectations, product knowledge exhibited no positive impact on the purchase intention of green skincare products. This phenomenon was ascribed to deceptive advertisements propagated by companies dealing in eco-friendly skincare items.

The identified gap in this context pertains to the absence of eco-labels or certifications from regulatory bodies to scrutinize claims made by organic brands. This lack of oversight contributes to consumer skepticism and underscores the necessity for transparent and credible certifications to validate the authenticity of eco-friendly products.

Beyond the formulation of sustainable cosmetics, packaging emerges as a pivotal differentiator in the market. **Chrysochou and Festila (2019)** delved into the European market, exploring the influence of packaging elements on customer purchase intentions for sustainable products across categories like butter, cereal, fruit juice, and milk. Through a meticulous content analysis of organic product packaging, the study revealed distinctions from conventional packaging, including increased usage of paper material, incorporation of green or white colors, and imagery symbolizing nature. Crucially, both explicit and implicit elements on the package, such as conveying environmental friendliness and sustainability, played pivotal roles in communicating brand values. This nuanced approach not only differentiates products in the market but also effectively communicates their features and values to consumers, facilitating enhanced market positioning.

In essence, consumers, particularly the environmentally-conscious Generation Z, are not merely seeking sustainable products but navigating a landscape rife with misinformation and green washing. Brands prioritizing transparency, ethical considerations, and authentic eco-certifications are poised to cultivate trust and loyalty among this discerning demographic. As consumers increasingly prioritize sustainability, the industry's response must encompass not only product formulation but also the authenticity and transparency communicated through packaging and marketing efforts.

LIFE CYCLE ANALYSIS

Expanding the horizons of sustainability in cosmetics necessitates a thorough life cycle analysis, commencing with the foundational phase of ingredient sourcing. As underscored by **Bom et al. (2020)**, this initial stage lays the groundwork for the integration of sustainability throughout subsequent phases. It involves a nuanced examination of raw material sourcing methodologies, categorizing them into naturally sourced, nature-identical, and synthetic ingredients. The discourse delves into sustainable alternatives to conventional ingredients, with a particular spotlight on the innovative concept of up cycling agro-industry waste.

In the realm of cosmetics, water has become a crucial element in formulation and manufacturing, giving rise to escalating water consumption concerns. **Aguiar et al. (2022)** note a pivotal shift among certain cosmetics brands towards waterless formulations, fast rinse-off, or non-rinse formulas. This highlights the importance of scrutinizing the manufacturing process to ensure the sustainability of green products.

In response to the heightened emphasis on sustainability, manufacturers endeavor to project a greener image through thoughtful packaging design. **Hallez et al. (2023)** conducted a study investigating the persuasive impact of visual and textual claims on consumer purchasing decisions for sustainable products. Cool packaging colors, such as blue and green, were found to enhance the perception of a product's healthiness and sustainability due to their association with nature. Informational claims proved effective in convincing consumers of a product's sustainability credentials.

Sustainability, extending beyond mere resource reduction, emerges as a catalyst for profitability and enhanced brand image. It not only boosts customer loyalty but also enhances employee and consumer morale, aligning them with perceived 'good causes.' The green initiatives of the cosmetics industry result in brand differentiation and a profound connection with conscious consumers.

OBJECTIVES

1. To assess the impact of the Product Dimension on Green Consumer Behaviour in

the context of Sustainable Cosmetics.

2. To investigate the relationship between the Colour Theory and Green Consumer Behaviour.
3. To examine the Influence of Sustainable Packaging on Green Consumer Behavior in the Sustainable Cosmetics Industry

HYPOTHESES TO BE TESTED

1. **H₀**: There is no impact on the product dimension of sustainable cosmetics and green consumer behavior of end users.
H₁: There is an impact on the product dimension of sustainable cosmetics and green consumer behavior of end users.
2. **H₀**: There is no relationship between colour theory and green consumer behaviour.
H₁: There is relationship between colour theory and green consumer behaviour.
3. **H₀**: There is no impact on green consumer behavior and sustainable packaging of organic cosmetics.
H₁: There is impact on green consumer behavior and sustainable packaging of organic cosmetics.
4. **H₀**: There is no significant difference in the mean levels of green consumer behavior/ awareness about sustainable cosmetics across different age groups.
H₁: There is a significant difference in the mean levels of green consumer behavior/ awareness about sustainable cosmetics across different age groups.

RESEARCH METHODOLOGY

This is an empirical study. The scope of this study is confined to the respondents who are female in the age group 15 to 34 years, residing in Chennai. The analyses were conducted on green consumer behavior and its potential determinants (Product Dimension, color theory dimension, and Sustainable Packaging Factor). The primary data was collected through a structured questionnaire and secondary data was obtained from relevant books, journals, newspapers, and websites. The questionnaire consists of 23 questions. The research design of the study adopts a cross-sectional research design to investigate the relationships between various dimensions (product, color theory, and sustainable packaging) and green consumer behavior. Cross-sectional data are collected at a single point in time to capture a snapshot of consumers' perceptions and behaviors. The study involves a sample of 62 participants, representing a diverse demographic profile. Participants are recruited through convenience sampling, aiming for a balance in age, gender, and other relevant demographic factors. The primary dependent variable is "Green Consumer Behaviour," measured using relevant scales or indices. Independent variables include "PRODUCT DIMENSION," "COLOUR THEORY DIMENSION," and "SUSTAINABLE PACKAGING FACTOR," each assessed using validated scales. The method adopted for data collection is a survey through Google Forms. During the data collection, the participants complete a structured questionnaire containing items related to the study variables. Likert scales were used for responses. Clear instructions are given to ensure accurate and consistent responses. The statistical tools used for the study are: - a) **Descriptive Statistics** - Descriptive statistics are employed to provide an overview of the sample characteristics and key study variables. b) **Correlation Analysis**: Pearson correlation coefficients are calculated to assess the strength and direction of relationships between variables. c) **Regression Analysis**: Multiple regression analyses are conducted to explore the predictive power of Product Dimension, color theory dimension, and Sustainable Packaging Factor on green consumer behavior. d) **ANOVA**: ANOVA is employed to test for significant differences in green consumer behavior among different age groups.

and e) **Factor Analysis.**

ANALYSIS AND INTERPRETATION RELIABILITY ANALYSIS

The reliability test was conducted for the questionnaire. The Cronbach’s Alpha is measured to be 0.972 and it is an acceptable questionnaire and table I shows the reliability statistics.

TABLE – I **RELIABILITY TABLE**

Reliability Statistics	
Cronbach’s Alpha	N of Items
.972	23

Source: Compiled from SPSS Output

From the above table, reliability analysis was carried out and it can be seen that the values are above 0.500. Hence, it is an excellent instrument to collect data. A reliability coefficient of 0.972 suggests a high degree of reliability in the measured variable or test. Reliability in this context refers to the consistency and stability of the measurements or scores obtained from a particular instrument or assessment tool. The coefficient, often expressed as a value between 0 and 1, with 1 indicating perfect reliability, implies that approximately 97.2% of the variability in the scores can be attributed to true differences among individuals, while the remaining 2.8% may be due to measurement error or other sources of variability.

CORRELATION AND REGRESSION

The following are the hypotheses for the correlation and regression.

H₀: The Product Dimension of sustainable cosmetics has no impact on the green consumer behavior of end users

H₁: The Product Dimension of sustainable cosmetics has an impact on the green consumer behavior of end users

Correlations

		PRODUCT DIMENSION	GREEN CONSUMER BEHAVIOUR
PRODUCT DIMENSION	Pearson Correlation	1	.640**
	Sig. (2-tailed)		<.001
	N	62	62
GREEN CONSUMER BEHAVIOUR	Pearson Correlation	.640**	1
	Sig. (2-tailed)	<.001	
	N	62	62

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis conducted between “PRODUCT DIMENSION” and “GREEN CONSUMER BEHAVIOUR” reveals a strong and statistically significant positive correlation ($r = 0.640$, $p < 0.001$). This implies that as the perceived Product Dimension of sustainable cosmetics increases, there is a notable tendency for consumers to exhibit more positive green consumer behavior. The correlation coefficient of 0.640 suggests a robust connection between these two variables, and the

statistical significance underscores the reliability of this relationship. It is important to note that while this correlation provides evidence of an association, it does not establish causation. Further research, possibly incorporating experimental designs or qualitative insights, may be necessary to explore the causal mechanisms underlying the observed correlation. Nonetheless, this finding suggests that consumers who perceive a higher Product Dimension in sustainable cosmetics are more likely to engage in environmentally friendly consumer behavior, highlighting the potential influence of product characteristics on sustainable purchasing decisions.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.640 ^a	.410	.400	2.22850

a. Predictors: (Constant), PRODUCT DIMENSION

The regression analysis was conducted to explore the relationship between the predictor variable “PRODUCT DIMENSION” and the dependent variable “GREEN CONSUMER BEHAVIOUR.” The model’s summary indicates a strong positive correlation (R = 0.640) between the two variables. The R Square value of 0.410 suggests that approximately 41% of the variability in “GREEN CONSUMER BEHAVIOUR” can be explained by variations in “PRODUCT DIMENSION.” The Adjusted R Square, considering the number of predictors, is 0.400. The ANOVA results are highly significant (F = 41.684, p < 0.001), affirming that at least one predictor variable contributes significantly to explaining the variance in “GREEN CONSUMER BEHAVIOUR.”

Breaking down the coefficients, the constant term is 3.025, representing the predicted value of “GREEN CONSUMER BEHAVIOUR” when “PRODUCT DIMENSION” is zero, although this may not be practically meaningful. The coefficient for “PRODUCT DIMENSION” is 0.342, indicating that for every one-unit increase in “PRODUCT DIMENSION,” “GREEN CONSUMER BEHAVIOUR” is predicted to increase by 0.342 units. The standardized coefficient (Beta) of 0.640 emphasizes a moderately strong positive relationship between “PRODUCT DIMENSION” and “GREEN CONSUMER BEHAVIOUR.”

In conclusion, the regression analysis provides robust evidence of a significant and positive association between perceived Product Dimensions in sustainable cosmetics and green consumer behavior. While these findings suggest a meaningful link, it’s important to note that correlation does not imply causation. Future research endeavors, including experimental designs, may be necessary to delve deeper into the causative aspects of this relationship. Nonetheless, the results contribute valuable insights into understanding the impact of Product Dimensions on consumers’ environmentally conscious choices.

H₀: There is no relationship between colour theory and Green Consumer Behaviour.

H_a: There is relationship between colour theory and Green Consumer Behaviour.

Correlations

		COLOUR THEORY DIMENSION	GREEN CONSUMER BEHAVIOUR
COLOUR THEORY DIMENSION	Pearson Correlation	1	.641**
	Sig. (2-tailed)		<.001
	N	62	62
GREEN CONSUMER BEHAVIOUR	Pearson Correlation	.641**	1
	Sig. (2-tailed)	<.001	
	N	62	62

** . Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis between “COLOUR THEORY DIMENSION” and “GREEN CONSUMER BEHAVIOUR” reveals a strong and statistically significant positive correlation ($r = 0.641$, $p < 0.001$). This indicates a robust association between the perceived color theory dimensions in sustainable cosmetics and the extent to which consumers exhibit green behavior. The correlation coefficient of 0.641 suggests that as the perceived “COLOUR THEORY DIMENSION” increases, there is a substantial tendency for “GREEN CONSUMER BEHAVIOUR” to increase as well. The statistical significance ($p < 0.001$) reinforces the reliability of this relationship, indicating that the observed correlation is unlikely to be a result of random chance. This finding suggests that consumers who perceive stronger color theory dimensions in sustainable cosmetic products are more likely to engage in positive green consumer behavior. However, it’s important to note that correlation does not imply causation and further research may be needed to explore the underlying mechanisms and potential causal relationships between these variables.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.641 ^a	.410	.400	2.22789

a. Predictors: (Constant), COLOUR THEORY DIMENSION

The regression analysis was conducted to explore the relationship between the predictor variable “COLOUR THEORY DIMENSION” and the dependent variable “GREEN CONSUMER BEHAVIOUR.” The model’s summary indicates a moderate positive correlation ($R = 0.641$) between the two variables. The R Square value of 0.410 suggests that approximately 41% of the variability in “GREEN CONSUMER BEHAVIOUR” can be explained by variations in “COLOUR THEORY DIMENSION.” The Adjusted R Square, considering the number of predictors, is 0.400. The ANOVA results are highly significant ($F = 41.740$, $p < 0.001$), affirming that the inclusion of “COLOUR THEORY DIMENSION” significantly contributes to explaining the variance in “GREEN CONSUMER BEHAVIOUR.”

Breaking down the coefficients, the constant term is 2.890, representing the predicted value of “GREEN CONSUMER BEHAVIOUR” when “COLOUR THEORY DIMENSION” is zero, although this may not be practically meaningful. The coefficient for “COLOUR THEORY DIMENSION” is 0.312, indicating that for every one-unit increase in “COLOUR THEORY DIMENSION,” “GREEN CONSUMER BEHAVIOUR” is predicted to increase by 0.312 units. The standardized coefficient (Beta) of 0.641 emphasizes a moderate positive relationship between “COLOUR THEORY DIMENSION” and “GREEN CONSUMER BEHAVIOUR.”

In conclusion, the regression analysis provides robust evidence of a significant and positive association between perceived color theory dimensions in sustainable cosmetics and green consumer behavior. While these findings suggest a meaningful link, it’s important to note that correlation does not imply causation. Future research endeavors, including experimental designs, may be necessary to delve deeper into the causative aspects of this relationship. Nonetheless, the results contribute valuable insights into understanding the impact of color theory dimensions on consumers’ environmentally conscious choices.

H₀: Green consumer behavior is affected by the sustainable packaging of organic cosmetics

H₃: There is impact on green consumer behavior due to the sustainable packaging of organic cosmetics.

Correlations

		SUSTAINABLE PACKAGING FACTOR	GREEN CONSUMER BEHAVIOUR
SUSTAINABLE PACKAGING FACTOR	Pearson Correlation	1	.564**
	Sig. (2-tailed)		<.001
	N	62	62
GREEN CONSUMER BEHAVIOUR	Pearson Correlation	.564**	1
	Sig. (2-tailed)	<.001	
	N	62	62

** . Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis between “SUSTAINABLE PACKAGING FACTOR” and “GREEN CONSUMER BEHAVIOUR” reveals a significant and positive association ($r = 0.564$, $p < 0.001$). This indicates that as the perceived “SUSTAINABLE PACKAGING FACTOR” in organic cosmetic products increases, there is a notable tendency for consumers to exhibit more positive green behavior. The correlation coefficient of 0.564 suggests a moderate to strong positive relationship between these variables. The statistical significance ($p < 0.001$) underscores the reliability of this relationship, suggesting that the observed correlation is unlikely to be due to chance.

These findings imply that consumers who place a higher value on sustainable packaging in cosmetic products are more inclined to engage in environmentally friendly consumer behavior. However, it’s essential to recognize that correlation does not imply causation, and while this analysis demonstrates an association, it doesn’t provide evidence of one variable causing changes in the other. Further research, such as experimental studies or in-depth qualitative investigations, may be necessary to elucidate the causal mechanisms and explore the broader context of consumer decision-making in the realm of sustainable cosmetics.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.564 ^a	.318	.306	2.39654

a. Predictors: (Constant), SUSTAINABLE PACKAGING FACTOR

The regression analysis was conducted to examine the relationship between the predictor variable “SUSTAINABLE PACKAGING FACTOR” and the dependent variable “GREEN CONSUMER BEHAVIOUR.” The model’s summary indicates a moderate positive correlation ($R = 0.564$) between these two variables. The R Square value of 0.318 suggests that approximately 32% of the variability in “GREEN CONSUMER BEHAVIOUR” can be explained by variations in the “SUSTAINABLE PACKAGING FACTOR.” The Adjusted R Square, considering the number of predictors, is 0.306. The Std. Error of the Estimate is 2.39654, providing an indication of how well the model fits the data.

The ANOVA results are highly significant ($F = 27.924$, $p < 0.001$), indicating that the inclusion of “SUSTAINABLE PACKAGING FACTOR” significantly contributes to explaining the variance in “GREEN CONSUMER BEHAVIOUR.” In terms of coefficients, the constant term is 3.568, representing the predicted value of “GREEN CONSUMER BEHAVIOUR” when the “SUSTAINABLE PACKAGING FACTOR” is zero, although this may not be practically meaningful. The coefficient for “SUSTAINABLE PACKAGING FACTOR” is 0.424, indicating that for every one-unit increase in the “SUSTAINABLE PACKAGING FACTOR,” “GREEN CONSUMER BEHAVIOUR” is predicted to increase by 0.424 units. The standardized coefficient (Beta) of 0.564 emphasizes a moderate positive relationship between the “SUSTAINABLE PACKAGING FACTOR” and “GREEN CONSUMER BEHAVIOUR.”

In conclusion, the regression analysis provides robust evidence of a significant and positive association between consumers' perceptions of Sustainable Packaging Factors in cosmetic products and their green consumer behavior. While these findings suggest a meaningful link, it's important to note that correlation does not imply causation. Further research, including experimental designs or qualitative investigations, may be necessary to delve deeper into the causal aspects of this relationship and understand the broader context of consumer decision-making in the realm of sustainable cosmetics.

ONE – WAY ANALYSIS OF VARIANCE (ANOVA)

H_0 : There is no significant difference in the mean levels of green consumer behavior/awareness about sustainable cosmetics across different age groups.

H_1 : There is a significant difference in the mean levels of green consumer behavior/awareness about sustainable cosmetics across different age groups.

ANOVA

GREEN CONSUMER BEHAVIOUR

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13.112	2	6.556	.786	.460
Within Groups	491.872	59	8.337		
Total	504.984	61			

ANOVA Effect Sizes^{a,b}

		Point Estimate	95% Confidence Interval	
			Lower	Upper
GREEN CONSUMER BEHAVIOUR	Eta-squared	.026	.000	.124
	Epsilon-squared	-.007	-.034	.094
	Omega-squared Fixed-effect	-.007	-.033	.092
	Omega-squared Random-effect	-.003	-.016	.048

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

The analysis of variance (ANOVA) was conducted to explore potential differences in “GREEN CONSUMER BEHAVIOUR” across distinct age groups. The results indicate that there are no statistically significant variations in green consumer behavior between the age of the respondents, as reflected by a non-significant F-value of 0.786 with a p-value of 0.460. This suggests that any observed differences in “GREEN CONSUMER BEHAVIOUR” might be attributed to random variation rather than systematic distinctions between the different age groups.

In conclusion, the ANOVA results, coupled with the effect size measures, do not provide robust evidence of significant differences in green consumer behavior across the different age groups. The non-significant p-value implies that observed variations may be due to chance, emphasizing the need for further investigation or additional data to draw more definitive conclusions about the impact of age of the respondents' differences on “GREEN CONSUMER BEHAVIOUR.”

KAISER – MEYER - OLKIN MEASURE OF SAMPLING ADEQUACY AND BARTLETT'S TEST OF SPHERICITY

KMO is the measure of Sampling Adequacy and Bartlett's test of sphericity was used to examine the appropriateness of Factor Analysis. KMO value usually varies between 0 and 1. The Bartlett's

Test of Sphericity is the test for null hypothesis that the correlation matrix has an identity matrix. These analyses helped to ensure the measurement is consistent across time and various items in the instrument. These tests provide the maximum standard to proceed for Factor Analysis.

Kaiser – Meyer - Olkin Measure of Sampling Adequacy and Bartlett’s Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.664
Bartlett’s Test of Sphericity	Approx. Chi-Square	321.021
	df	78
	Sig.	.000

Source: Compiled from SPSS Output

From the table, it is inferred that, if the values closer to 1 are better and Kaiser – Meyer - Olkin Measure of Sampling Adequacy value is 0.8 is suggested maximum which closer to 1. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett’s test of sphericity was used to examine the appropriateness of Factor Analysis. The approximate of Chi-Square Value is 321.021 is significant at 5% level of significant. Hence Factor Analysis is considered as an appropriate technique for further analysis of the data.

FACTOR ANALYSIS

Factor analysis is a way to condense the data in many variables into a just a few variables so it is also called as “dimension reduction”. Factor Analysis reduces the “dimensions” of data into one or more “super-variables.” The most common technique is known as Principal Component Analysis (PCA). The data used for the analysis is Metric data, which the basic requirement for the Factor Analysis and it was fulfilled because of the Likert-Scale that was used in the Instrument/Questionnaire. Table XIII depicts the various factors and it’s loading.

Table - Factor Analysis with its Loading

Factors	Loading
PRODUCT DIMENSION	
I consider the ethical sourcing of ingredients a crucial factor when purchasing cosmetic products	0.767
I actively ensure that common synthetic chemicals are avoided in the products	0.752
The bio-degradable nature of the product and its ingredients is important to me	0.712
I always look out for formulations that extend the shelf life and stability of the product without usage of chemicals	0.698
I am likely to check for the fragrant and colorants of organic cosmetics that are formulated without synthetic additives	0.645
I prefer to support cosmetic products that make efficient usage of power and water in their production process	0.812
Cosmetic products that are free from animal cruelty are more appealing to me	0.766

I actively seek information on whether tests have been conducted to check the “sustainable” nature of the product	0.689
I am likely to confirm the “dermatologically tested” terms on the product	0.623
COLOUR THEORY DIMENSION	
I prefer cosmetic products that use natural and non-toxic colorants	0.701
I always check for specific certifications or standards that indicate the usage of natural colors	0.666
I believe that the color of a product can reflect its commitment to sustainability	0.633
The usage of natural pigments in cosmetics enhances my confidence in its safety and quality	0.622
I feel that the usage of green, blue or brown hues of color is associated with eco-friendliness	0.756
I believe that the presence of symbols such as the Recycle symbol, Energy Stars, Leaping Bunny (cruelty-free), Vegan Symbol	0.698
Elements such as green plants, roots, and flowers are believed to convey a strong image of sustainability of the cosmetic products	0.721
I think that transparent and clear labelling communicates traceability in production process	0.566
I feel that clean lines and geometric shapes do not emphasize the products’ functionality and longevity	0.657
I believe that simple, recognizable logos and branding elements convey a strong brand identity	0.896
SUSTAINABLE PACKAGING FACTOR	
I believe that the life cycle analysis of packaging material impacts the products’ sustainability credentials	0.812
I do not actively choose cosmetic products that have bio-degradable or recyclable packaging	0.766
Reusable packaging ensures the green initiative of the concern	0.689
Check for certifications and standards such as Eco Mark, ISO, Energy Star, Green Labels etc	0.623
I believe that minimalist packaging ensures least amount of packaging to protect and present the product effectively	0.812
Instructions on the disposal of packaging helps the consumers make informed decisions	0.567
Life Cycle Assessment of the package from production to disposal ensures that the product is sustainable in its entirety	0.675
GREEN CONSUMER BEHAVIOUR	
I actively seek information about the sustainability practices of the cosmetic brands that I use	0.563

I am willing to pay a premium for sustainably produced cosmetics	0.672
I believe that sustainable cosmetics contribute to a healthier and more conscious lifestyle	0.532
I feel a sense of pride when using cosmetic products with strong sustainability commitments	0.721

Source: Compiled from SPSS Output

From the table, the factor analysis was done and it was divided into four factors. The factors are Product Dimension, Colour Theory Dimension, Sustainable Packaging Factor and Green Consumer Behaviour. The value above 0.5 is considered for the factor analysis.

SCOPE FOR FUTURE RESEARCH

The scope for future research in the field of sustainability in the cosmetics industry includes exploring the long-term impacts of emerging sustainable practices, investigating the effectiveness of eco-labeling and certification, assessing the influence of socio-cultural factors on green consumer behavior, examining innovative sustainable packaging solutions, evaluating the scalability of sustainable initiatives for small and medium-sized enterprises, and conducting in-depth analyses of the environmental and social implications of specific ingredients and manufacturing processes in the cosmetics supply chain. Additionally, there is potential for cross-industry comparative studies and longitudinal research to track the evolution of sustainability trends in the cosmetics sector.

CONCLUSION

In conclusion, this research illuminates the intricate landscape of sustainability within the cosmetics industry, offering valuable insights into consumer behavior, industry practices, and the evolving notion of eco-consciousness. The findings underscore the pivotal role of ingredient sourcing, manufacturing processes, and packaging design in shaping sustainable practices. While recognizing the strides made by major brands, it is evident that challenges persist, necessitating continuous adaptation to dynamic consumer preferences and regulatory landscapes. The study's limitations emphasize the need for nuanced interpretations, and the identified scope for future research opens avenues for deeper exploration and innovation. As the cosmetics industry navigates the delicate balance between aesthetics and environmental responsibility, this research contributes to a holistic understanding, paving the way for informed decision-making, industry evolution, and a more sustainable beauty landscape.

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A STUDY ON THE APPLICATION OF KAIZEN PRINCIPLES IN ENHANCING ACADEMIC QUALITY OF THE TECHNICAL EDUCATION SECTOR OF KERALA

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ABSTRACT

Kerala is acclaimed as the highest literate state in India, which indicates the quality of the education system prevailing in the state. In the case of technical education, Kerala is behind other states which requires special attention. The quality benchmarks and strategies set by the visionaries to upscale the higher education system supports Kerala to reach the ninth position in India. Improved academic quality is the key factor to attain the nation's leading position. Setting quality standards and adherence to accreditation enables the higher education sector of Kerala to ensure a sustainable academic environment.

The application of kaizen principles in the technical education of Kerala to strengthen academic quality is the research question addressed in this study. The study examines the various challenges faced by the technical education sector of Kerala and the perception of teachers regarding the benefits sought out by the implementation of kaizen principles. The descriptive study focuses only on the bachelor of technology courses, other courses under technical education are excluded from the study. The data needed for the study is gathered from the senior teachers or departmental heads of engineering colleges in Kerala affiliated with A. P. J. Abdul Kalam Kerala Technological University followed by convenient sampling method. The study highlights industry academia interactions, declining placement rate, lack of courses of high relevance in job market as the major challenges faced by engineering colleges in Kerala. The study reveals that the application of various quality standards will enhance the academic quality of engineering education in the state of Kerala. A proper strategic intent with a clear action plan for the implementation of quality standards in education is required as education is purely a service-oriented sector with distinctive features and characteristics.

Keywords: Engineering Education, Kaizen Principles, Challenges, Academic Quality.

INTRODUCTION

Kerala is the most literate state in India with a literacy rate of 96.2% (census 2011). This highest literacy rate is a result of the contributions of the great visionaries and revolutionaries of Kerala to the field of education. The presence of 13 universities, other institutions, and public and private higher educational institutions paved a strong foundation for the higher education sector of Kerala. The presence of private players in higher education helps the state to strengthen the quality of education up to a certain extent and helps to prevent the migration of students from Kerala to other states for higher education. The liberal political approach of the Government towards private educational institutions and universities attracts corporate educational groups to set up institutions in Kerala.

The state's higher education sector is growing fast in terms of academic quality and student en-

rolments. The improvements in higher education reflect the employability of graduates and support them in career advancement and progression. Technical education is an important sub-sector of higher education aimed at creating competent engineering professionals in line with the changing technological environment. With the changes and innovations in the technological environment, technical higher education has to be revamped to create competent and employable graduates who fit in the industrial settings.

Quality is a buzzword in the present scenario, as quality and outcome are considered in every aspect of human life. Quality of education is an important aspect of growth and development. Quality of education can be examined or ascertained in numerous methods at multiple points of levels. Numerous education methods at primary, secondary, and higher education levels quantify the efficiency of educational outcomes. Accreditation to various applicable standards is an easy way to implement and evaluate educational quality and outcome.

Kaizen is a widely accepted Japanese philosophy that focuses on continuous improvement in all aspects of operation by integrating and collaborating with top-to-bottom employees. Kaizen focus on improving the overall efficiency by enhancing quality, encouraging employees, and keeping customers at the forefront. The focus of Kaizen philosophy is to attain organization wide improvement by incorporating small individual changes. The application of the Kaizen philosophy can be made possible in an organization by the implementation of various principles of Kaizen. The kaizen principle favors a hassle-free work system to enable smooth production which integrates all activities essential for an operation unit.

Kaizen principles were developed for the continuous improvements of manufacturing or production sectors, though it was widely accepted and implemented in numerous service sectors to improve the overall efficiency of business operations and outcome quality. The implementation of kaizen principles enables service providers to deliver quality-oriented services as per the expectations of the customer. The vivid nature of services impacts certain challenges in service delivery, and the implementation of kaizen enables one to attain customer satisfaction even in the middle of all challenges and uncertainties. For a pure service sector like education, the quality of outcome is less testable, the implementation of kaizen principles will strengthen the education sector to render quality education thereby attain a sustainable future.

STATEMENT OF THE PROBLEM

Kerala is acclaimed as the highest literate state in the nation possessing first position in elementary and secondary education. In the case of higher education, Kerala's position needs to catch up as the students' migration rate to other states for higher education is high. The students' migration to neighbouring states for higher education is an alarming threat to the state, as Kerala is the top literate state in India. Enhancing the educational quality by evaluating the present quality standards and setting benchmarks for improvements will be of immense importance to address the issues in the technical education sector of Kerala, and also to bring the position of higher education to the first in India.

OBJECTIVES OF THE STUDY

The broad objective of the study is to examine the application of Kaizen principles in enhancing academic quality in the technical education sector of Kerala.

The specific objectives include;

1. To identify and examine the various challenges faced by the technical education sector of Kerala.
2. To examine to what extent Kaizen principles are applied in the technical education sector of Kerala.

METHODOLOGY OF THE STUDY

The descriptive study relies on primary and secondary data. The primary data has been collected from the faculty members of engineering colleges in Kerala affiliated with A. P. J. Abdul Kalam Kerala Technological University. 80 senior faculty members, IQAC coordinators, and Head of Departments from various engineering colleges offering Bachelor of Technology have been selected randomly and data has been gathered by sharing a Google form. Secondary data has been collected from research articles, textbooks, websites, and other official documents. A five-point Likert scale is used to gather data, and the gathered data is analyzed with the IBM SPSS (Statistical Package for Social Sciences).

APPLICATION OF KAIZEN PRINCIPLES IN THE TECHNICAL EDUCATION SECTOR OF KERALA

Kaizen is a globally accepted quality principle adopted by corporations to enhance quality. The application of the 5S principles of kaizen, that is sort, set up order, shine, standardize, and sustain, in the technical education sector of Kerala is analyzed in the table.

Table No.1
Descriptive Statistics – Application of Kaizen Principles in the Technical Education Sector of Kerala

APPLICATION OF KAIZEN PRINCIPLES	N	Mean	Std. Deviation	Rank Order
The organization has a system to segregate needed items from unneeded items	80	4.20	.644	
The organization has a system of eliminating unnecessary items from workplace	80	4.26	.689	
The organization has a distraction free work system	80	4.40	.608	
The organization has a policy of prioritizing various tasks.	80	4.20	.753	
SORT (SEIRI)		4.27		1
The organization have a system to reduce the number of breakdowns	80	4.13	.624	
Special attention is provided for proper maintenance on periodic intervals.	80	4.07	.759	

Always try to maintain a clean and organized work area	80	4.47	.616	
Periodic review is conducted to ensure a hazzle free work system	80	4.20	.537	
SHINE (SIESO)		4.22		3
A place for everything and everything in its place.	80	4.05	.673	
The layout of the organization ensures favorable work environment.	80	4.00	.914	
The organization has sufficient facility to store things.	80	4.34	.594	
All things are systematically arranged for easy access.	80	4.35	.597	
SET IN ORDER (SEITON)		4.12		5
The organization benchmarks the best practices in the workplace.	80	4.16	1.073	
The organization has a consistent approach with which tasks and procedures are done.	80	4.07	.671	
The organization implemented tasks such as job cycles, charts, visual clips, checklists, etc to standardize the performance.	80	4.19	.748	
The organization has a consistent procedure to prevent breakdowns.	80	4.21	.650	
STANDARDIZE (SEIKETSU)		4.16		4
The organization has a clear plan to sustain the activities performed for a longer period of time.	80	4.23	.826	
The standards and benchmarks are reviewed and updated year after year to improve efficiency.	80	4.41	.791	
Counselling of employees is done regularly to maintain a satisfied and competent workforce.	80	4.00	.796	
The organization has a competent policy to maintain discipline	80	4.41	.610	
SUSTAIN (SHITSUKE)		4.26		2

Source: Primary Data

This analysis portrays the application of Kaizen principles in the technical education sector of Kerala in order to improve the academic quality. From this analysis it is clear that Sort (Seiri) is the most effective Kaizen principle applied in the technical education sector of Kerala followed by Sustain (Shitsuke). Set in Order (Seiton) is the least effective kaizen principle followed by Shine (Seiso) and Standardize (Seiketsu) as per the opinion of the respondents.

APPLICATION OF KAIZEN PRINCIPLES IN ENHANCING ACADEMIC QUALITY IN THE TECHNICAL EDUCATION SECTOR OF KERALA

The application of Kaizen principles and its effect on academic quality is examined in this study. The academic quality of the technical education sector of Kerala is examined by considering the various indicators of academic performance developed by the National Assessment and Accreditation Council (NAAC). The academic quality of the technical education sector of Kerala is detailed in the table.

Table no: 2
Descriptive statistics- Factors leading to Academic Quality

FACTORS LEADING TO ACADEMIC QUALITY	N	MEAN	STD. DEVIATION
Provides a special emphasis on curriculum planning	80	4.46	.615
Tries to maintain academic flexibility	80	4.52	.616
Focus on curriculum enrichment	80	4.39	.606
Has a sound feedback system	80	4.51	.636
Student enrolment rate is progressing year to year	80	4.37	.718
Tries to promote student diversity	80	4.33	.689
Focuses to retain talented teachers.	80	4.29	.799
Conduct evaluation process frequently.	80	4.54	.615
Research facilities are being provided	80	3.90	1.132
Encourages Research publications.	80	4.06	.998
Promotes consultancy activities	80	3.97	1.031
Conducts extension activities frequently	80	3.98	1.031
Required physical facilities are being provided.	80	4.11	.795

Have a library as a learning resource.	80	4.46	.502
Have a strong IT infrastructure	80	4.18	.742
Have a system to deal maintenance of the available facilities.	80	4.18	.742
Have a student mentoring and support system	80	4.39	.490
The system supports student progression	80	4.45	.501
The system enables student participation and activities	80	4.51	.503
Institutional vision and leadership are visible at all levels clearly	80	4.40	.608
Have a well - defined strategy	80	4.18	.839
Have a well-established Internal Quality Assurance System	80	4.39	.720
All the institution level activities are environment conscious	80	4.18	.742
Always strive to promote best practices	80	4.39	.606

Source: Primary data

The table portrays the various factors prevailing in the technical education sector of Kerala for enhancing the academic quality. This analysis reveals that the major factors leading to the attainment of academic quality as per the opinion of respondents were conducting frequent evaluation process followed by the presence of a sound feedback system and encouraging students' participation and activities. The least significant factors leading to academic quality prevailing in the technical education sector of Kerala as per the opinion of respondents were promoting consultancy activities and extension activities.

Table no: 3
Model Summary–Application of Kaizen Principles in Enhancing Academic Quality.

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.770	.592	.565	9.33611	.592	21.511	5	74	.000

a. Predictors: (Constant), Sustain, Sort, Standardize, Shine, Set in Order

Source: Primary Data

Table no: 4
ANOVA- Application of Kaizen Principles in Enhancing Academic Quality.

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9374.685	5	1874.937	21.511	.000 ^b
	Residual	6450.065	74	87.163		
	Total	15824.750	79			
a. Dependent Variable: AQ						
b. Predictors: (Constant), Suſtain, Sort, Standardize, Shine, Set in Order						

Source: Primary data

The application of Kaizen principles in enhancing academic quality of the technical education sector of Kerala is tested and it is clear from the analysis that there is a positive correlation between the Kaizen principles and the academic quality as the R value is 0.770. The model is found fit as the F value is 21.511 and the obtained significant value 0.000 is less than 0.05. The prediction of the application of kaizen principles in enhancing the academic quality of the technical education sector of Kerala is valid and the model is 59.2% true as the R square value is 0.592.

Table no.5
Coefficients – Academic Quality

Model	B	Unstandardized Coefficients		Standardized Coefficients	T	Sig. Tolerance	Collinearity Statistics	
		Std. Error	Beta				VIF	
1	(Constant)	18.494	9.883		1.871	.065		
	Sort	1.513	.682	.237	2.218	.030	.482	2.073
	Shine	.560	1.112	.083	-.503	.616	.202	4.948
	Set in order	3.632	1.117	.598	3.252	.002	.163	6.148
	Standardize	.760	1.074	.141	-.708	.481	.139	7.181
	Suſtain	1.180	.763	.226	1.546	.126	.259	3.863

a. Dependent Variable: AQ

Source: Primary data

The academic quality of the technical education sector in Kerala can be predicted in future by applying the equation,

Academic Quality (Y) = A + (B*X1) + (C*X2) + (D*X3) + (E*X4) + (F*X5), i.e. [Academic quality (Y) = 18.494 + (Sort * 1.513) + (Shine * .560) + (Set in order * 3.632) + (Standardize * .760) + (Suſtain * 1.180)].

There is no multi collinearity among the independent variables as the tolerance limit is less than

0.90. Further, the analysis reveals that the academic quality can be individually predicted by the application of Sort and Set in Order as the P Value obtained is less than 0.05. But the academic quality cannot be individually predicted by the application of Shine, Standardize and Sustain as the P Value obtained is greater than 0.05.

Academic quality is derived by the application of Set in Order as the Beta coefficient is higher (0.598) followed by Sort (0.237) and Sustain (0.226).

CHALLENGES FACED BY THE TECHNICAL EDUCATION SECTOR OF KERALA

Though Kerala is acclaimed as the highest literate state in Kerala, the state's higher education sector, particularly the technical education system is facing certain challenges which deteriorate the higher education system of the state. A proper understanding of all challenges is required to set strategies to alleviate those challenges that hinder the progress of the education system of the state. The various challenges faced by the technical education system of Kerala are detailed in the below-mentioned table.

Table No: 6
Descriptive Statistics - Challenges Faced by the Technical Education Sector of Kerala

Challenges Faced by Technical Education Sector	Mean	Std. Deviation	Rank
Lack of courses of high relevance in job market	3.98	0.510	3
Students migration to neighbouring state	3.88	0.751	5
Poor infrastructure	3.73	0.961	7
Lack of students' motivation and career counselling	3.41	0.838	9
Employability of the graduates	3.72	0.999	8
Expert faculty	3.74	0.785	6
Declining placement rate	4.00	0.675	2
Industry academia interaction	4.22	0.796	1
Severe lack of live projects	3.97	0.837	4
Ordinary campuses not preferred by recruiters	3.10	0.742	10

Source: Primary Data

The analysis reveals that industry academia interaction is the predominant challenge faced by the technical education sector of Kerala followed by declining placement rate, non-availability of courses relevant to the job market, lack of live projects and students' migration to neighbouring states. As far as the least challenge faced by the technical education sector of Kerala preference for ordinary campuses by the recruiters followed by lack of student motivation and career counselling, employability of graduates, poor infrastructural facilities, and the availability of expert faculty members.

SUGGESTIONS

Quality standards and philosophies were accepted worldwide, as it significantly influence organizational efficiency and productivity. Benchmarking better-performing institutions and implement-

ing the various quality standards is a strategy of organizations focusing on growth and attainment of higher levels of excellence. The application of Kaizen principles enables the technical education sector of Kerala to develop a sustainable and equitable education system favouring all stakeholders.

The application of kaizen principles in the technical education sector of Kerala is significant as all factors of kaizen principles are having adequate effect. Attention needs to be provided in designing an organizational structure that favors a smooth and effective flow of work activities. Developing a better layout favouring the uninterrupted flow of work, materials, and information is of immense importance in organizational designing. A proper blueprint of workflow and systematic arrangement of all needed things conveniently arranged is desirable to ensure a hazzle-free work system where the workforce can perform effectively. All the required essential commodities needed to perform work should be available in the workstation without impacting the work.

Keeping a consistent approach is of immense importance in fostering an effective learning environment. Rendering consistent and standardized academic output by setting strategies and developing a competent pool of workforce is required as education is a pure service. Benchmarking the best practices followed by the better performers in the industry enables the technical education sector to render consistent academic outputs.

Educational institutions should provide considerable importance to co-curricular and extra-curricular activities as that of curricular activities. Promoting social surveys and organizing outreach activities enables the students to connect more with the society, and helps them to address the societal problems and issues on which they can find solutions. Promoting students to indulge more in research and consultancy activities enables them to bridge the gap between industry and academia. This will strengthen the students to be more employable by grabbing the needed skills expected by the industry. The consultancy activities help the students get involved in live projects and thereby they will be good in problem-solving and decision-making.

CONCLUSION

The Kaizen philosophy is an organization-wide quality improvement strategy that helps to attain organizational effectiveness by implementing individual small changes across all functional domains. The application of Kaizen is much higher in the manufacturing sector rather than service sector. The presence of Kaizen principles, directly or indirectly in the technical education sector of Kerala is significant and which is significantly influencing the academic quality. Revamping the organizational layout favouring smooth workflow with all requirements in the right order and place will significantly enhance the performance of the technical education sector of Kerala. Equal weightage should be provided to co-curricular and extra-curricular activities as that of curriculum will strengthen the technical education sector to address the severe threat of unemployment by making students more connected to society and industry. The application of Kaizen principles in the service sector impacts certain challenges as these principles are purely focused on the manufacturing sector.

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AN INQUIRY INTO THE PROFESSIONAL EXCELLENCE OF MUSICALLY TALENTED HR PROFESSIONALS

Dr. Angelo Mathew .P & Swathy P.S

ABSTRACT

This qualitative study explored the musical talents of working HR from the perspective of expediting likely relationship if any exists between the innate talent and likely manifestation of the same on their professional efficiency. The research questions examined musically talented managers' perspectives on human capital development, the creativity of these professionals in executing HR functions, and how they compare their efficiency to non-musical colleagues. It has been carried out with the help of an interview guide that enabled in-depth interview of five selected musically talented HR professionals holding top most positions to the bottom line in companies ranging from Snapchat to Lulu group pan India. Narrative summary of cases lead to thematic analysis and constant comparison method helped the researcher to present findings by revealing certain axiological considerations. The findings reveal that musical talents are associated with higher confidence, creativity, communication, and problem-solving abilities. Music also strengthens workplace relationships, culture, and performance. However, musical talents are rarely consciously leveraged for HR excellence. The suggestions include providing platforms to showcase musical talents, incorporating or considering presence of musical intelligence in hiring/training/engagement, and raising awareness of transferable musical skills. In conclusion, the study provides insights into organizational assets described as musically gifted HR professionals. It also asserts that, appropriate consideration on the same may bring better creativity and relationship-building. Organizations can empower these professionals by recognizing their talents and integrating music-based initiatives. With the right support, musically inclined HR professionals can maximize their potential and boost organizational success.

Keywords

- Musically talented HR professionals
- Professional excellence
- Creativity in HR functions
- Functional efficiency
- Emotional intelligence
- Workplace culture
- Self efficacy
- Creativity

INTRODUCTION

Music is a universal art form that resonates profoundly with the human experience. The multi-faceted impacts of music on cognition, emotion, and social bonding have significant implications for the workplace. This qualitative study explores the intersection of musical talents and professional excellence within the critical domain of human resource (HR) management. HR professionals are responsible for managing talent, employee engagement, culture, and performance. As organizations aim to gain competitive advantage through human capital, there is growing interest in how individual capabilities shape HR excellence. Intriguingly, some HR professionals possess musical talents like instrumentation, singing, and composition. The cognitive and emotional effects of music training

may transfer valuable skills to their HR roles. For instance, music learning enhances working memory, pattern recognition, attention span, and emotional attunement. Singing improves vocal flexibility critical for communication. Music performance boosts teamwork, goal-setting, and public speaking skills. However, limited research has deeply investigated how musical abilities manifest in HR competencies. This study addresses this gap through an explanatory case study methodology. In-depth interviews were conducted with 5 musically talented HR professionals in India, across hierarchical levels and diverse industries. Semi-structured interviews explored their musical backgrounds, opportunities to express talents at work, perceived creativity and efficiency, and comparative abilities. The narrative case summaries were analyzed using thematic analysis techniques. Key themes identified include self-esteem, productivity, creativity, self-efficacy, functional efficiency, and empathy. Verbatim extracts provide rich, subjective insights into these professionals' experiences. The findings reveal musical talents strengthen workplace culture, communication, innovation, confidence, and problem-solving. This study holds significance for both academia and practice. By elucidating the professional assets of musically gifted individuals, organizations can leverage these overlooked talents through supportive policies and programs. For scholars, it expands cross-disciplinary knowledge on how diverse cognitive strengths synergistically enhance functionality. Overall, the research highlights the profound power of music to elevate human capital and organizational success.

METHODOLOGY

This qualitative study utilized an explanatory case study design to gain an in-depth understanding of musically talented HR professionals. Case studies are optimal for researching complex phenomena within real-world contexts. The topic met these criteria, with limited prior research on the intersection of musical abilities and HR competence. Participant The sample comprised 5 musically gifted HR professionals currently working in India. Purposive sampling was used to identify information-rich cases – participants with substantive musical talents as well as professional HR experience. The sample included both males and females ranging from HR executives to heads of HR departments. They represented diverse industries including healthcare, mining, retail, and technology. This variation in organizational level and sector enriched the data by capturing a breadth of perspectives. Inclusion criteria required all participants have significant musical experience like singing, instrumentation, or composition. They also needed minimum 2 years of professional practice within HR roles. There were no other exclusionary criteria. Data Collection, the primary data source was in-depth, semi-structured interviews conducted remotely using video conferencing. The interviews lasted 30-45 minutes and were guided by an interview schedule. However, discussions remained flexible to follow up on salient points organically. The key topics covered were: Musical background – talents, training, and current involvement, Opportunities to express musical abilities at work, Perceived creativity in HR roles ,Self-assessed efficiency in HR functions , Comparative abilities versus non-musical peers, Other emergent themes, Probing questions elicited deep narratives and elucidated ambiguities. With informed consent, interviews were recorded and transcribed for analysis. Participation was voluntary with confidentiality assured. Data Analysis, Narrative case summaries were constructed from the interview data to represent each participant's musical and professional experiences. A cross-case thematic analysis then identified common themes, patterns, and meanings. The constant comparison technique was utilized, gathering iterative insights through comparing data across cases. Coding categorized data extracts related to the research questions. Key themes were derived inductively from the coded content. Verbatim quotes illustrate these conceptual themes. Triangulation occurred through secondary literature analysis on music cognition, HR excellence, and musical intelligence theories. This methodological integration enhanced the trustworthiness and credibility of the findings.

CASE DESCRIPTION AND DATA ANALYSIS

Introduction

This chapter deals with the description of collected data, data analysis and interpretation of collected data for the research. The main objective of the present study is to understand the functional efficiency of the musically talented HR professionals, in dealing with the HR functions like Recruitment, talent management, Employee engagement, etc. when compared to their peers or colleagues. For the study the Researcher collected data through interview guide from key informants.

4.2 ANALYSIS AND INTERPRETATION

Research Question	Theme Identified
To study musically talented managers and their perspective on human capital development.	Self-esteem & productivity
To explore if managers having musical talent are demonstrating better creativity in designing execution of selected HR functions.	Creativity, intelligence
To study how Musically talented Professionals compare their functional efficiency with their colleagues.	Self-efficacy, functional efficacy, empathy

THEME	SUB THEMES	INDICATIVE VERBATIM	ITERATION
Self-esteem	<ul style="list-style-type: none"> • Confidence to face people and situation • Articulation 	<ol style="list-style-type: none"> 1. "I had never thought of comparing myself with others because of possessing musical talent, I am different I would clearly say no for this." 2. "As I have performed in different stages my manager has given me an opportunity to host an event and to do MC for it. So that was a different experience for me. And as part of employee engagement activities, I have got opportunity to express my talent in the workplace." 	Possessing musical talent contributes to a sense of positive self-esteem and feeling unique/different from others.

		<p>3. “I do remember those candidates with music in their CVs hired were not disappointing.... maybe we get...or sense some spark....”</p> <p>4. “I strongly believe that I have got some potential than my colleagues, they might have more experience than me or they have a privilege in knowing Hindi as their native language, (laughs) but I strongly believe that it doesn’t demotivate me from doing my works or making achievements in career.”</p>	
Productivity	<ul style="list-style-type: none"> Ability to comply with targets 	<p>1. “They have asked for a sudden hiring within one week or 5 days, so to find the best candidate we need to first study the job role then only we can choose the platform and candidates. So, I have posted in linked platform and boosted the advertisement so as a result within two days I could close the vacancy as I got so many responses.”</p> <p>2. “I try to accomplish the task with perfectionism and within the time limit that is given for completing the task. And I am so far satisfied with works I had completed so far for the works I have completed I haven’t got any complaints, I have a good satisfaction level for the works I have completed so far because as a fresher there was no one to teach me or guide me. I have learned all</p>	<p>Direct productivity gains from showcasing talent for employee engagement. May also indirectly boost productivity through positive impacts on morale, relationships, creativity and learning.</p>

		<p>this through with curiosity I have with me to learn and to successfully complete the work that I am doing.”</p> <p>3. “ I always prioritise my task and based on that I always complete the tasks that are given for me, that always help me to increase my productivity in workplace”</p> <p>4. “I also got opportunities there to sing and organise certain programs for employees.”</p>	
Creativity	<ul style="list-style-type: none"> • Ability to do things creatively. 	<p>1. “I believe that I am creative that in using different social media platforms and all for making advertisement etc. I always try to include my creative ability in it.”</p> <p>2. “While making posters for events or for birthdays my poster tends to be more creative than others and they always prefer mine. Like that with or without my knowledge the works I am doing has some creativity and I believe that my musical talent has something to do with it.”</p> <p>3. “While talking about creativity I felt that my musical talent has got some relation with that. Because certain amount of creativity is needed in designing posters and bringing in new ideas for conducting activities games etc. for fun Friday activities and all.”</p> <p>4. “I am damn creative, I know and others may vouch for. I have designed many HR programs in distinct ways. I usually don’t like to plan</p>	<p>Musical talent translates into creativity that is visible and valued in professional work.</p>

		and execute activities in a routine way. That's my style..."	
Self-efficacy	<ul style="list-style-type: none"> Independently able to do things Belief in the ability to visualise things 	<ol style="list-style-type: none"> "I strongly believe that I have higher end than my colleagues, they might have more experience than me or they have a privilege in knowing the native language, but I strongly believe that doesn't demotivate me from doing my works or making achievements in career." "While comparing myself with my colleagues I found that each one excels in each domain while looking. even though me and my colleague who share similar profile I found that there are certain fields in which she can do well and in certain areas where she lags, I can excel." "So, while comparing my job role with my colleagues who are having similar profile I can relate that and find I am good than them." "I always got favourable appraisal reports and rewards. I was given promotions ahead of my senior colleagues as well, I don't know why?... I think I was almost always able to retain the first position professionally." 	Confidence in ability to handle and efficiently complete work functions and tasks.
Functional efficiency	<ul style="list-style-type: none"> Able to distinguish functions and its nuances Capable of doing right things with objectivity 	<ol style="list-style-type: none"> I basically assess my functional efficiency by how we handle the situation with our basic knowledge and ideas using strategy, how we solve the issue is import 	Musical talents enhance self-efficacy, supporting meeting deadlines, achieving targets, and completing quality work. Efficiency is evaluated by timeframe and quality

		<p>ant and we learn that. So, as I was facing one crisis like this, I have strategically solved it using my functional knowledge. I always believe that we must follow the basic HR functions but always try to include our inputs in it.</p> <ol style="list-style-type: none"> 2. "I strongly believe that I have higher end than my colleagues, they might have more experience than me or they have a privilege in knowing the native language, but I strongly believe that doesn't demotivate me from doing my works or making achievements in career." 3. "Handling HR functions is just a matter of practice, I think... It's more of a routine check. Individuals vary and therefore situations too... hence There's need for customisation. Efficiency is high if you ask me... Who is not efficient." 4. "I am a singer and it helped to express the in-depth knowledge of singing, so that I got closer with colleagues and rather than seeing me as a senior level employee working in the HR department, they began to recognize me easily whenever I approached them with my functional responsibilities." 	standards.
Empathy	<ul style="list-style-type: none"> • Humane approaches 	<ol style="list-style-type: none"> 1. "Mostly there is a belief that musically talented people are empathetic than others I don't have any scientific evident for this but I strongly 	<p>Iteration 1: There is a common belief that people with musical talent tend to be more empathetic compared to others. While</p>

		<p>believe that I have that empathetic nature in me especially with the lower level employees while empathetically listening to their problems and within my limits I always try to convince them and try to find solutions to their problems within my limit.”</p> <p>1. “I always listen empathetically to lower-level employees’ problems and tries to find solutions within his capabilities. For instance, “Mostly there is a belief that musically talented people are empathetic than others I don’t have any scientific evident for this but I strongly believe that I have that empathetic nature in me especially with the lower-level employees while empathetically listening to their problems and within my limits I always try to convince them and try to find solutions to their problems within my limit.”</p> <p>1. “My colleagues often say that I am empathetic as I always ensure that others are getting opportunity to express their talent in events”</p>	<p>I do not have scientific evidence to support this, I strongly feel that I personally possess an empathetic nature, especially when engaging with employees at lower levels. I make an effort to empathetically listen to their problems and try to convince and find solutions within my abilities to address their concerns.</p> <p>Iteration 2: I tend to empathetically listen to problems faced by employees at lower levels and attempt to find solutions that are within my capabilities. For example, there is a general perception that musically gifted individuals are more empathetic. Though I do not have scientific proof of this, I strongly believe that I have an empathetic disposition, particularly with junior employees. When they share their difficulties, I make sure to listen with empathy, and then try to convince and guide them towards resolutions that are within my limits.</p>
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NARRATION OF CASES

CASE 1 - Anoop

“I started my career at KIMS Healthcare Management in HR and I am currently working as an HR executive at LULU Group International. Both KIMS and LULU encourage employees to express their artistic talents through programs and events, as it helps them enjoy their work and

reduces stress from heavy workloads. At KIMS, as a fresher *“I was able to coordinate the company’s internal arts festival called KIMS Fest, which was an interdepartmental collaboration between different departments like Marketing, Finance, etc. As a fresher I knew only some people from other departments and after this event I got the opportunity to express my talent as well as make connections with other departments. So people came to know that I am a singer and it helped me express my in-depth knowledge of singing, so that I became closer with colleagues. Rather than seeing me as a senior level employee working in the HR department, they began to recognize me for my singing.”*

This gave me a chance to showcase my singing skills and make connections across departments, allowing colleagues to see me as more than just an HR professional. As a fresher I knew only some people from other departments and after this event I got the opportunity to express my talent as well as make connections with other departments.

In comparing myself to colleagues, (long pause) *“I see myself as more adaptable and a quick learner. For example, when I changed industries from healthcare at KIMS to retail at LULU, I was able to adapt to the new work culture and environment quickly, gaining recognition for it. I adapted to this culture and work environment quickly and got recognition for that. I do not compare myself to others in terms of possessing musical talent, saying I am simply different.”*

My participation in college arts festivals helped build my creativity and coordination skills, which aid me now in recruitment work. At KIMS, I learned that real HR work differs from textbook learnings - it often involves reverse order and on-the-spot strategic thinking to solve problems with basic HR knowledge. For example, *“they asked for sudden hiring within one week or 5 days, so to find the best candidate we need to first study the job role then only we could choose the platform and candidates. So, I posted on LinkedIn and boosted the advertisement. As a result, within two days I could close the vacancy as I got so many responses. So I found that we could use our creativity more on social media platforms according to the job role we are handling - that was a learning I got from this experience.”*

While I can fully apply my artistic creativity when coordinating arts events and fests, I cannot relate it fully to all work areas and tasks in my HR roles, as the areas I have touched so far is mainly related to recruitment and statutory compliances.... (pause) maybe that’s the reason I couldn’t connect with it. But I recognize the value of incorporating creativity into the recruitment process where possible. In coordinating events related to arts I can fully immerse my artistic creativity, but in all areas, I couldn’t relate it fully.

Overall, opportunities to showcase artistic talents at both companies have benefited me professionally and personally. I highlight my adaptability, creative problem-solving and relationship-building abilities nurtured through these experiences.”

CASE 5, Respondent 5

(Anonymity of name maintained on the request of respondent)

I have been working in corporate for two years now as HR Executive and talking about my experience with musical talent we get more opportunity to participate in employee engagement activities and as we are working in HR department, we get opportunity to conduct also. And we also get connection with people across our department. Workwise rather than in employee engagement activity we won’t give much importance in connecting this talent with work. This is all my personal

experience as a person possessing musical talent. (Laughs loud)

Talking about the opportunity I am getting in the workplace;” *I get adequate opportunities for that like participating and coordinating the programs and this in turn helped me in conducting games and programs in fun Fridays for conducting employee engagement activities while I had that jobrole.*“

So, while comparing my job role with my colleagues who are having similar profile, *‘I can relate that and find I am good than them’*. Every job depends on the target and the time limit within which we are going to complete it.... So likewise, I have worked in recruitment so you need to hire certain number of employees within the time limit than your co-worker then only you can more efficient than others so in that way I have always found myself good in handling the functions assigned to me. Regarding creativity, (pause) *“I always believe that I am creative in doing my work. And while talking about creativity I felt that my musical talent has got some relation with that. Because certain amount of creativity is needed in designing posters and bringing in new ideas for conducting activities games etc. for fun Friday activities and all. So, I believe that in this sense my musical talent has an influence on my creativity level in my case.”*

Regarding functional efficiency I have first joined in the recruitment section. So *“when I found that I can handle it well I have changed my job role to next level because I found that I need to develop my career to next level. So that at the end we get efficiency in every filed rather than sticking on to one job role”*. And talking about the relation between my functional efficiency and artistic creativity I don’t find much connection with them.” *I think it might depend on the job role because if you are a singer, you can conduct the events and participate in it rather than in employee engagement functional domain, I don’t find any connection between my functional efficiency and artistic creativity in rest of the HR domains.”* (Long laugh).

MAJOR FINDINGS AND DISCUSSION

The analysis revealed that musically talented HR professionals tend to have greater confidence in their job skills and abilities. Their musical background appears to directly enhance creativity, innovation, problem-solving skills, and efficiency in learning new systems. Coworkers often observe and comment on these employees’ creative abilities and capacity for quickly improving processes. Even without conscious effort, developing competence in their roles boosted self-esteem, uniqueness, and performance in engagement activities for those with musical talents. Additionally, their talents facilitated building connections across departments, aiding team building more than non-musical colleagues.

However, opportunities to showcase musical gifts remain rare in professional settings. While recognition is received, this does not boost morale as talents are not consciously leveraged. Most respondents did not actively connect their musical abilities to excellence in HR roles. The findings suggest musical talents strengthen workplace relationships, communication, culture, and organizational performance. But these innate talents are not fully exploited to maximize employee and organizational success. Although musical abilities appear to nurture confidence, empathy, creativity, and other interpersonal skills, explicit platforms to express these talents are limited in HR roles currently. Targeted efforts may be needed to formally incorporate and optimize the manifestations of musical giftedness in enhancing professional excellence.

CONCLUSION

The research indicates that HR professionals with musical talents tend to have higher confidence, creativity, public speaking abilities, and problem-solving skills compared to their non-musical colleagues. Their musical background appears to strengthen workplace relationships, communication, collaboration, and overall culture. However, few consciously connect their musical talents to excellence in HR roles.

While musical talents offer advantages, opportunities to showcase these are rare in professional settings. To leverage these talents, organizations could provide platforms for musically gifted employees, consult them on engagement initiatives, and incorporate music skills in hiring and training. Further awareness of transferable skills between music and HR could empower professionals to excel.

Overall, the study provides valuable insights on the assets musically talented HR people bring to the table. Organizations stand to benefit by recognizing these talents and incorporating music-based programs. With the right support, musically inclined HR professionals can achieve their full potential and boost organizational success.

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ADAPTIVE LEADERSHIP- THE MOST SIGNIFICANT CONTEMPORARY LEADERSHIP MODEL FOR ORGANISATIONAL CHANGE

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ABSTRACT

The importance of adaptive leadership in the transformation of organisations has been emphasised by COVID-19. We must adapt to organisational change in the current dynamic environments, which may be made easier with the help of adaptive leadership. Adaptive leadership is a style of leadership that promotes versatility and adaptability in an ever- changing environment for both the individual and the organisation. It supports people in taking on fresh possibilities and challenges. Harvard professors Ronald Heifetz and Marty Linsky invented it in the early 2000s and 1990s. It anticipates future demands and trends, makes decisions, evolves, and overcomes obstacles—all of which are critical during a global crisis. It may be used in a variety of circumstances, including financial crises, medical emergencies, or war. The theoretical underpinnings of adaptive leadership, including growth, character, organisational justice, and emotional intelligence, are examined in this research. The purpose of the study is to determine how adaptive leadership affects organisational transformation. The main conclusion of the study is that organisational changes may be affected through the implementation of adaptive leadership. To deal with unforeseen changes in the environment, leaders could turn to adaptive leadership in a variety of instances. This research elucidates the significance, concepts, key findings, and theoretical frameworks around adaptive leadership and its impact on organisational transformation.

Keywords: Adaptive Leadership, Organisational Change, Organisational Challenges, Emotional Intelligence, organisational justice.

INTRODUCTION

Adaptive leadership is a pragmatic method for resolving business problems that helps executives recognise and concentrate on the critical components of a company's operations while eliminating those that are unnecessary. Authors and leadership specialists Marty Linsky and Ronald Heifetz of Harvard developed the concept of adaptive leadership. This is the era of adaptive leadership, The 1990s and early 2000s. Leaders who adapt reach out to all people's opinions and viewpoints—not just those in positions of authority inside an enterprise. Additionally, the method assists individuals in changing their views in response to every new possibility and problem.

A useful paradigm for leadership called adaptive leadership can assist people and organisations in being flexible and adaptable under demanding circumstances. Adaptive work frequently entails questioning the current system and implementing required but potentially dramatic changes. Managers using this leadership style are expected to be proactive and make thoughtful, although occasionally surprising, judgements.

Adaptive leadership, initially introduced by Heifetz in 1994, may be used to handle adaptive

issues that cannot be resolved by using “current technical expertise or routine behaviour.” Getting a broader picture of the issue, analysing what is transpiring, and acting quickly to improve the situation in response to predicted or perceived requirements are essential components of this leadership style. Put further, adaptive leadership involves foreseeing future needs, trends, and opportunities; communicating these needs to foster group understanding and action support; adapting to enable ongoing learning and the need for response adjustments when needed; and exercising accountability, which includes being open to hardships and criticism as well as being open about decision-making procedures. All these abilities would be required in the event of a pandemic.

Numerous organisations’ organisational structures and job designs have undergone significant modifications because of the COVID-19 pandemic (Foss, 2020a,b; Seetharaman, 2020). Managers are likely to respond to the subsequent shift in work requirements by demonstrating adaptive behaviour, given the abrupt and enforced character of the COVID-19 crisis (Allworth and Hesketh, 1999; Gryphon et al., 2007; Jundt et al., 2015). “Task- performance-directed behaviour that individuals enact in response to or anticipation of changes relevant to job-related tasks” is the definition of adaptive performance (Jundt et al., 2015, pp. 54–55). Adaptive performance is typically seen in the workplace when people must modify their knowledge, skills, and talents to “adopt new positions, learn new skills, or modify existing work behaviours” (Chan, 2000, p. 2) in order to prevent performance loss during times of transition or to retain their level of performance.

The aforementioned types of actions are more likely to reduce the loss of resources brought on by the COVID-19 issue, making them a beneficial aspect of leadership under such circumstances. Because of this, managers who are driven to lead amid the COVID-19 crisis are more likely to invest their time and energy in ways that improve their own well-being, the well-being of their team, and the success of the company overall; in other words, they are more likely to act in a way that demonstrates this kind of motivation through adaptive performance. Using supervisor judgements of their workers’ work, Pulakos et al. (2002) studied the taxonomy of adaptive performance and discovered that motivation and self- efficacy are important determinants of adaptive performance.

NEED AND SIGNIFICANCE

Numerous professions, including healthcare management, can benefit from the application of adaptive leadership. Adaptive managers are characterised by the following traits: (1) creative problem-solving through the use of fresh, original ideas; (2) creative crisis management by maintaining composure and swiftly assessing available options; (3) constant search for information to further their professional development and enhance their work processes; and (4) interpersonal flexibility through embracing and working with the opinions of others (Pulakos et al., 2000; Charbonnier-Voirin et al., 2010).

- People expect change and view it favourably.
- Extremely democratic; a lot of perspectives are welcomed.
- The importance of rules are not sufficiently emphasised.
- Teams use their strengths to their full potential.
- Be unconventional and question the status quo of doing things.
- Be adaptable and welcome change as a necessary component of the organization’s development.
- Accept ambiguity rather than run from it; take what you can from it to help you come up with better answers.
- Take the initiative rather than the reactive approach.
- Are willing to try new things.
- Accept a range of opinions.

OBJECTIVE

To determine the impact and significance of adaptable leadership in the context of organisational transformation.

LITERATURE REVIEW

In a journal by Kuluski, K., Reid, R. J., & Baker, G. R. (2021) related to Applying the principles of adaptive leadership to person-centred care for people with complex care needs: Considerations for care providers, patients, caregivers and organizations-, revealed that advancing person-centred care at both the clinical and organizational levels requires a growth mindset, a willingness to try (sometimes fail) and try again, comfort in being uncomfortable and a commitment to figure things out, in partnership, in iterative ways. Patients, caregivers and care providers are all adaptive leaders in this endeavour. It all starts with openly acknowledging challenges and uncertainty. The research related to adaptive leadership during covid- 19 by Santra, S., & Alat, P. (2022) Adaptive leadership of doctors during COVID- 19. Leadership in health services concluded that adaptive work during the pandemic included – new learning to address unique issues, changing perspectives and establishing and maintaining a safe and engaging workplace environment.

An article by Ben Ramalingam, et.al -Harvard Business Review, (2020) principles-to-guide-adaptive-leadership pointed out that 4A's of adaptive leadership such as Anticipation of likely future needs, trends and options, articulation of these needs to build collective understanding and support for action, adaptation so that there is continuous learning and the adjustment of responses as necessary, accountability, including maximum transparency in decision making processes and openness to challenges and feedback. And it also identified five common principles to guide the kind of adaptive leadership across the Covid-19 response. The principles include Ensure evidence-based learning and adaptation, Stress-test underlying theories, assumptions, and beliefs, Streamline deliberative decision making, strengthen transparency, inclusion, and accountability and mobilize collective action.

In a journal by Binshad Vaheed Managing change through adaptive leadership (2021), pointed out that adaptive leadership is one of the styles that deals with resolving organizational problems effectively. Leaders must be adaptive to change, address challenges by providing effective solutions. Thus an adaptive leader must have strong interpersonal and communication skills that will help in managing organizational issues effectively. The study concludes the need of adaptive leadership in the organization for managing the changes.

In Boylan, M. (2018). Enabling adaptive system leadership: Teachers leading professional development. Educational Management Administration & Leadership, demonstrates the value of the analytical framework and indicates that a cadre of teacher system leaders can be developed by attending to the interplay of professional development leadership and a wider system-orientated professional identity and by specific support to develop adaptive leadership capacities and skills.

CONCEPTUAL FRAMEWORK

Adaptive leadership and organisational change

Adaptive leaders do more than just identify problems and work out solutions; they also go above and beyond. They can also foresee problems and determine their underlying causes. They are also

adept at determining which risks are worthwhile and which ones should not be wasted by the company. Given its significant emphasis on overcoming obstacles to reach success, adaptive leadership may have a profound effect on an organisation. This task has the potential to yield enormous benefits for the organisation and its people, which would inspire an adaptable leader. The leader persists in inspiring the team to achieve its objective in spite of obstacles encountered along the path.

Principles of Adaptive Leadership

- Emotional Intelligence . Adaptive leaders are perceptive of others' emotions. They are aware that change is difficult. Since empathy fosters trust, it also has the added benefit of raising morale inside the company. Employees are far more willing to put in the extra effort necessary to assist the firm reach its goals when they feel acknowledged and encouraged.
- Organizational justice and Fairness throughout the organisation. Even when it's difficult to hear the truth, adaptive leaders need to be forthright and honest. They must provide the information to stakeholders and staff. Their openness will guarantee that modifications are acknowledged and comprehended.
- Advancement. Trying out new tactics, procedures, and the like is something that adaptive leaders adore doing, particularly if it makes the company more successful and ready for transformation. They also possess the tendency.
- Character. This concept emphasises the importance of gaining the respect of people under your direction. Again, openness is essential. When something isn't working, the leader must be totally honest, at ease with making errors, and prepared to call it completely. An adaptable leader accepts variety and finds a way to make it work for the sake of the entire organisation, just as much as they welcome change.

Determinants of Adaptive Leadership

- Those who embrace adaptive leadership are more equipped to handle change and enable people and organisations to flourish when faced with obstacles. In order to create capabilities that are in line with an organization's goals, this leadership strategy uses diagnosis, interruption, and innovation. A set of three fundamental determinants defines it.
- Valuable versus disposable. The essential issue that emerges when a firm is changing is: What is worth maintaining and what isn't? An adaptable leader understands when to let go of things that were formerly considered valuable, especially when they are no longer beneficial to the organisation. For instance, ending a long-standing vendor relationship with the business or eliminating a procedure that once increased productivity but is now impeding it. In other words, letting go of the past is necessary for an organisation to thrive since it may lead to new ideas, perspectives, and value systems.
- Risk-taking with prudence. This is where an adaptable leader guides and supports innovation and creativity that fits with the aims and objectives of the business as a whole. In addition to creating and testing the upcoming stages, this is also about accepting failure as a learning opportunity and adapting to new circumstances. An organisation cannot expand unless there are a few (or many) process setbacks; they are not only inevitable but also necessary. Recognising that they present opportunities to take the business to new heights, adaptive leaders are ready for these challenges and are aware of them.
- Orderly appraisal: when the organisations trail phase for developing the approaches are over the next phase is to integrate these practices and smart risk into the organisation. Adaptive leaders now closely monitor the effects of new systems and procedures, share their findings, and collaborate with teams to implement any required enhancements.

FINDINGS

- The study demonstrates the applicability of adaptive leadership in a variety of fields, including healthcare, education, finance, and pandemic scenarios.
- Predicting future events and implementing crucial measures to address risks inside the company are beneficial in successfully dealing with crisis.
- Managers are forced to confront the difficulties and adjust to the present scenario.
- According to the data from the covid 19 period, managers who are adaptable are more likely to have greater confidence in their ability to lead during a crisis and, consequently, be more driven to do so during the real crisis.
- A department or organisation can greatly benefit from having managers who are adaptable because they are more likely to put in more time and effort to adjust to changing circumstances. Examples of these behaviours include creative problem solving, constant learning, effective handling of emergencies and work-related stress, and interpersonal adaptability.
- Creativity and innovation are fostered by adaptive leadership. It involves learning from mistakes and enabling workers to reach their greatest potential. It entails being sensitive to others' emotions, which raises worker morale inside the company.

THE OUTCOME

Adaptive leadership is a novel strategy for addressing organisational problems. Its applicability in the domains of health, education, impact on society, and other areas is more extensive. It instils responsibility in the workforce and fosters creativity and innovation. Character, Growth, Organisational Justice, and Emotional Intelligence are among the tenets of adaptive leadership. Given how frequently circumstances change in today's society, adaptive leadership is an essential leadership trait that can bring organisational change.

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INFLUENCE OF FINANCIAL LITERACY AND FINANCIAL STRESS ON FINANCIAL WELL-BEING: A STUDY AMONG EMPLOYEES IN MAHATMA GANDHI UNIVERSITY KERALA

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ABSTRACT

Financial well-being refers to how happy and satisfied individuals feel with their finances. Previous research shows that the financial well-being of an individual can be improved through sound financial literacy and managing financial stress. The imbalance of financial well-being among individuals may be due to financial stress caused by increased debt or financial shortages. Therefore, personal financial management is essential to ensure sound financial wellness. In this research paper, financial literacy and financial stress are considered to determine the relationship of financial well-being. The samples for the study were the employees at Mahatma Gandhi University, Kerala, obtained through convenient sampling. The data were elicited through a structured questionnaire and analyzed using Statistical Package for the Social Science (SPSS). The result shows that financial literacy and financial stress have a strong influence on determining financial well-being.

Keywords: Financial Well-being, Financial Literacy, Financial Stress

INTRODUCTION

Financial programs like motivation and talks have been held recently to enhance people's financial literacy. The results will be evaluated to determine if a person is financially healthy at a low, medium, or high level of financial management. This is because financial well-being is essentially measured using health rather than wealth. This situation happens because different people define their financial well-being differently. Some of them feel they have good financial well-being despite having more debt. This is because they feel that their finances are in healthy condition. However, some of them feel that they are in excellent financial well-being if they are in a wealthy condition. Thus, the different interpretations of financial well-being lead to the individual's attitude and behavior in personal financial management (Delafronz & Paim, 2011).

Concerning financial wellness, two elements are discussed: economic well-being and financial well-being in differentiating personal financial management. The changes in financial wellness among the income earners, specifically those earning low-medium income, have been discussed. Delafronz & Paim (2011) explored that the changes in financial wellness happened due to decreased employment opportunities such as promotion, remuneration, position, and self-esteem. In addition, income instability leads to an imbalance of buying power among the households. Furthermore, the increasing number of family members also leads to changes in financial wellness (Sabitha, 2005). The three situations discussed are evidenced by the Deloitte Millennial Survey (2016) and Paychex

(2016) survey. Deloitte Millennial Survey (2016) showed that two-thirds of younger employees plan to leave their current job by 2020, with 25 percent saying they plan to leave in less than a year because of a lack of employment opportunities. A Paychex survey in 2016 found that approximately 70 percent of employees cited low pay as a reason they left or would leave a job, and 45 percent said they had or would leave due to a lack of benefits. Most employees are dissatisfied with their pay and benefits because they have yet to fully maximize the value of what their company offers. Both surveys will lead to financial stress among low- and medium-income earners. Hence, this paper aims to determine the factors influencing financial well-being among low- and medium-income earners.

Recently, the focal point of widespread discussion has been financial well-being. As Ward (2017) indicated, there is notable concern and apprehension about insufficient financial literacy, presenting challenges in cultivating this essential skill. Financial literacy is necessary to prevent many families from risks in decision-making. The reduction in staff numbers at universities in Kerala is associated with students opting for overseas institutions over state universities, underscoring a correlation with financial well-being. In such a scenario, the practical application of financial knowledge and measures to reduce financial stress becomes pivotal in achieving financial well-being. Additionally, the American Psychological Association (2014) reports that 64 percent of those surveyed cited money as a significant source of stress and paying for it with their health. Financial stress has been attributed to decreased employee productivity, increased absenteeism, and increased employer healthcare costs. Therefore, this paper aims to examine the relationship between financial literacy and financial well-being and the relationship between financial stress and financial well-being.

LITERATURE REVIEW

The level of financial well-being of an individual can measure financial health. According to Taft et al. (2013), to know the level of financial health, the individual must know their financial well-being. Nowadays, personal financial planning has become a genuine issue. This is because the problems in finance refer to the poor people and the individuals who have income. They lack financial well-being for their daily life, causing an imbalance of income, earnings, and spending habits. Daily well-being practices may affect the entire decision about money management (Leila & Fazli, 2015). Moreover, income earners' three essential components of financial well-being are spending, emergencies, and investments. To be financially well, an individual should make good decisions on his/her finances to avoid spending exceeding income. Planning for an emergency fund is a crucial component of financial well-being. Personal finance experts across the country recommend three to five months of income saved in a separate account for financial emergencies. It is challenging to financial well-being as any unforeseen event requires more emergency savings. In addition, income earners should invest their money in long-term or short-term investments and diversify their portfolios for value creation. They must ensure that investment decision-making will give them good returns in the future.

Joo & Grable (2004) initiated a study among workers intending to identify the determinants of financial well-being. It was found that better financial well-being is correlated with reduced absenteeism, better performance appraisal of employees, and minimized loss of working time. Meanwhile, a low level of financial well-being is caused by antecedents, for example, financial stress, financial strain, and inadequate financial literacy among employees. Additionally, Yin-Fah (2010) states that financial well-being results from employees' financial practices. Financial practices refer to the people who manage their financial resources to increase their success in retirement planning and financial management growth. Thus, two aspects related to each are financial well-being and employees (Mokhtar et al., 2015). This is because significant feedback had been received from the observation

of employers and financial advisors. Financial well-being will affect both aspects, whether directly or indirectly, the employees, groups, and the company's teams. Initially, the changes in financial well-being levels, whether high or low, among income earners will affect their job performance.

FINANCIAL LITERACY

Financial literacy is the ability to manage money in the world, including how people earn and invest it to increase the amount of money. According to Ali et al. (2013), it was a component to measure how well the person can use personal financial information and understand how to manage the finances. Financial literacy is how people understand managing money and apply the knowledge to make effective financial decisions. Furthermore, Huston (2010) highlighted a key finding where an individual with financial literacy might not show the expected behavior or improve his or her financial well-being due to other influences such as cognition and behavior. The example of cognitive and behavior are biased, self-control problems, family, peers, and economic and institutional conditions that may affect financial habits and well-being.

Besides, financial literacy assesses an individual's level of understanding of the basic concepts of finance and the individual's capability and confidence to manage his or her personal finances (Remund, 2010). The level of understanding in finance will be used to make short-term decisions and appropriate long-term financial planning. It is also used in considering life events and ever-changing economic conditions. The other factors that contribute to financial literacy have been found to have a strong relationship with socio-demographic characteristics and the status of family finances (Lusardi, Mitchell & Curto, 2010). The importance of financial literacy is evident as it is typically used as an indicator or input to a model that determines the need for financial education and explains variations in behavior and financial outcomes such as savings, investment, and credit behavior to ensure sound financial well-being. Therefore, from the arguments of the financial literacy among individuals that can lead to financial well-being, hypothesis 1 can be developed as:

H0: There is no significant relationship between financial literacy and financial well-being.

H1: There is a significant relationship between financial literacy and financial well-being.

FINANCIAL STRESS

Financial stress is a condition where individuals face difficulties in meeting financial obligations due to a shortage of money. A large amount of debt, medical bills, a job loss, or simply being irresponsible with spending can cause financial stress. According to Wharton (2007), as cited by Lim et al. (2014), financial stress can decrease employee job performance due to poor financial well-being. Individuals should know how to deal with financial stress by creating strategies that will benefit them, such as preparing a budget and creating an emergency fund. Financial stress includes several aspects of financial prospects, such as assets, income, debts, and money management. Several factors have been found to contribute to financial stress, such as: 'poor thinking in a financial way and perspective,' 'occurrences beyond individual's control,' and 'inadequate knowledge and skills' (MacKenzie, Desmond & Steen, 2013). Poor financial thinking includes a lack of concern in financial management or a desire to live exceeding one's means and capacity that can influence financial well-being. Occurrences beyond an individual's control are, for instance, job losses, health or relationship matters like divorce, bearing child-rearing costs, unexpected and expected pregnancy, death of spoon feeder, and having struggled with unstable businesses. The last factor is that some people lack sufficient practical financial management skills and knowledge.

Furthermore, several researchers defined *financial stress* as economic stress, hardship, strain,

and pressure. Financial stress can bring about psychological and physical responses. For example, one's health has been affected by financial stress, drinking problems, physical impairments, depression, and deteriorating psychological well-being (Kim & Garman, 2003). A few factors used as financial stress measures are as such: insufficient income allocated for repairs of household equipment or personal vehicles, borrowing money to buy necessities goods, improper planning of budget allocated for prioritized requirements, sickness, and poor skills and abilities needed for specific jobs that possess transferability, insurance, promotions, and fringe benefits. Due to the several arguments of financial stress towards financial well-being, hypothesis 2 is developed as follows:

H0: There is no significant relationship between financial stress and financial well-being.

H2: There is a significant relationship between financial stress and financial well-being.

THEORETICAL FRAMEWORK

Figure 1 shows the theoretical framework of two variables involved in this research. There consists of independent variables, which are financial literacy (Henry et al., 2001; Delafrooz; 2011, Murphy, 2005; Lusardi et al., 2010; Chen & Volpe, 1999;) and financial stress (Delafrooz; 2011, Leila & Fazli; 2015). Meanwhile, the dependent variable is financial well-being among employees in Mahatma Gandhi University, Kottayam.

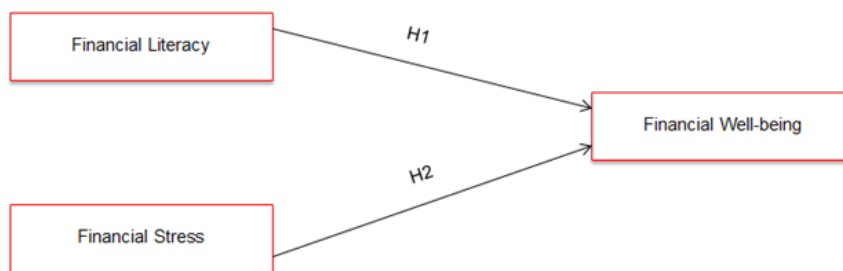


Figure 1

METHODOLOGY

This quantitative study examined and explained the characteristics of all variables identified. Data was collected using the individual as a unit of analysis. In the questionnaire, Section A consists of a demographic profile, and Sections B, C, and D consist of a five-point Likert scale of six questions related to financial well-being, financial literacy, and financial stress, respectively. The respondents should respond from point 1 = strongly disagree to 5 = strongly agree. The population of this study consisted of low-medium income earners among supporting staff in Mahatma Gandhi University, Kottayam. Selected respondents were served in the finance, human resource, academic affairs, and library departments. To determine the sample size, the researcher used the table by Sekaran and Bougie (2014) to decide 140 sample size to represent the entire population of University. The probability sampling is used in this study. The researcher used a stratified random sampling technique to split the respondents into mutually exclusive groups. The University has a total of 2364 employees. Finally, based on the employees' positions, the questionnaires are self-distributed to 50 employees from the Finance Department, 30 from the Human Resources Department, 30 from the Academic Affairs Department, and 30 from the Library Department. The data are gathered from the distributed questionnaires and analyzed using Statistical Package for the Social Science (SPSS) 20.0. Three hypotheses were developed in this study to ensure the study's objectives were achieved.

FINDINGS

Out of the 140 respondents who were selected for this study, a total of 103 questionnaires were returned, the questionnaires which is 73.6% are responded. In Section A of the questionnaire, information was obtained on seven demographic characteristics and essential information related to respondents, which are gender, age, marital status, race, academic qualification, monthly income, and working experience. Table 1 summarizes the demographic characteristics of respondents.

Table 1: Respondents' Demographic Characteristic

Description	Percentage	Percentage
Gender:		
Male	49	47.6
Female	54	52.4
Age:		
18-25 years	21	20.4
26-35 years	48	46.6
36-45 years	21	20.4
46-55 years	13	12.6
Marital Status:		
Single	38	36.9
Married	62	60.2
Others	2	1.9
Race:		
Indian	103	100
Others	0	0
Academic qualification:		
Degree	11	10.7
Diploma	20	19.4
Masters	63	61.2
Others	9	8.7
Monthly income:		
Rs. 10,000 – Rs. 20,000	31	30.1
Rs. 20,001 – Rs. 30,000	43	41.7
Rs. 30,001– Rs. 40,000	15	14.6
Rs. 40,001 – Above	14	13.6

From the table 1, it shows that most respondents are female with 52.4%. The respondents are at the age ranging from 26 to 35 years old. Most of the respondents are married and all respondents are Indian. They are mostly having a bachelor's degree. About 41.7% of the respondents earn monthly income between Rs. 20,001 to Rs. 30,000. The respondents are mostly having 2 to 5 years working experience.

The reliability test is used to examine the consistency of factors identified among the items in five-point likert scale questionnaires. From the analysis, all the items for each variable are reliable and acceptable with the Cronbach's alpha value of 0.803, 0.928 and 0.962 for financial well-being, financial literacy and financial stress respectively. It means that all the questions can be trusted to determine the finding of the research.

The descriptive statistics is utilized to translate mean of the outcome that highlighted for question that utilized interval estimation. The mean value is divided into three level which are high (3.50 – 5.00), medium (3.49 – 2.50) and low (2.49 – 1.00). Therefore, table 2 reveals the mean value for each items of financial well-being that the highest mean value of 4.1942 is refer to most of the respondents are concern with their financial performance. But, it followed with the mean value of 3.5728 is refer to most of the respondents are less properly plan their spending. It is because their

income finished before they are receiving the next income among low-medium income earners. But, the respondents still have an emergency fund with the mean value of 3.5243. The low mean value of 3.3592 is represents to the respondents are occasionally facing the problems to pay utility bills and insurance premium. It can say that the level of financial well-being of respondents are medium when they confident on controlling their personal financial and their financial management in a good condition.

For the financial literacy, table 3 signifies all questions have the highest mean value. It means that all respondents have financial literacy where they are concerned on saving and investment. Nevertheless, most of the respondents will take a loan for their investment and they are spending more on buying necessities goods than saving their income.

Questions	Mean
I am always finishing my earnings before receiving new income.	3.5728
I am often facing problems with bills such as telephone, credit cards, insurance payments and etc.	3.3592
I am confident that I can control my personal financial.	3.4757
I know that my financial management is in a good condition.	3.4951
I am feasible to have an emergency earning at least RM1000 if needed.	3.5243
I am concern with my overall financial performance.	4.1942

Table 2: Descriptive Statistic for Financial Well-being.

Questions	Mean
I tend to spend more than saving in buying necessities goods.	4.1650
I believe that buying insurance is the best form of investment.	4.1262
I think that a family should have an emergency saving at least 3 months of the family income.	4.1359
I think that saving account is better than fixed deposit account.	4.1068
I know that the savings is doubled its value after 10 years.	4.1068
I can take loan for investment.	4.2621

Table 3: Descriptive Statistic for Financial Literacy.

Referring to table 4, most of low-medium income earners have high financial stress. They are suffered on thinking about the bill payments, medical expenses and accrual payment. Worrying on high medical expenses will lead them restless and less peace of mind. They are also unable to support themselves in eating better foods and suffering depression due to their financial situation in every month.

Questions	Mean
Delay in payment always makes me worry.	4.1068
I cannot sleep because of worrying over bill payments.	4.2816
I am not able to support myself financially in eating a better food.	4.1359
I am suffering depression because of my financial situation for every month.	4.0097
I worry over the medical cost.	4.2039
The current financial conditions make me more restless and not in mood.	3.8544

Table 4: Descriptive Statistic for Financial Stress.

Furthermore, to in line with the objective of the study, the Pearson correlation is used to find correlation between variables and the value is between 0.00 which is no correlation and 1.0 for perfect correlation.

Table 5 shows the correlation for all variables in the study. The hypothesis statement 1 for first variable is financial literacy (independent variable) is $H_0: \beta X_1 = 0$ and $H_1: \beta X_1 \neq 0$. The decision is $P\text{-value} = 0.000 < 0.05$, so reject H_0 because there is a significant relationship between financial literacy and financial well-being among supporting staff in Mahatma Gandhi University, Kottayam. Pearson's correlation for this analysis shows that there is very strong correlation and positive relationship which is 0.872. The hypothesis statement 2 for second variable is financial stress (independent variable) is $H_0: \beta X_2 = 0$ and $H_2: \beta X_2 \neq 0$. The decision is $P\text{-value} = 0.000 < 0.05$ so reject H_0 because there is a significant relationship between financial stress and financial well-being among supporting staff in Mahatma Gandhi University, Kottayam. Pearson's correlation for this analysis shows that there is very strong correlation and positive relationship which is 0.852.

		WELL-BEING	LITERACY	STRESS
WELL-BEING	Pearson Correlation	1	.872**	.852**
	Sig. (2-tailed)		.000	.000
	N	103	103	103
LITERACY	Pearson Correlation	.872**	1	.916**
	Sig. (2-tailed)	.000		.000
	N	103	103	103
STRESS	Pearson Correlation	.852**	.916**	1
	Sig. (2-tailed)	.000	.000	
	N	103	103	103

Table 5: Correlation for All Variables.

DISCUSSION

An immediate and beneficial outcome on monetary health may occur when the individual has knowledge in finance (Sabri and Falahati, 2013). As supported by Azwadi et al. (2013) explained that people with high money related proficiency tend to arrange well in their spending and funds. Overall results represent that the respondents who are low-medium income earners have medium level of financial well-being even they have good financial literacy. It is because most of them facing with the high financial stress. It means that good financial literacy will not secure of better way in financial management due to lack of practising precise financial way from what knowledge that they have. Most of the respondents also live exceeding own mean and capacity due to low salaries received. This may occur due to depression and deteriorating psychological well-being (Kim & Garman, 2003). Other than that, low-medium income earners facing financial stress due to insufficient income allocated for repairs of household equipment or personal vehicles, borrow money to buy necessities goods and improper planning of budget allocated for prioritized requirements. From that reason, the result shows that there is a significant relationship between financial stress and financial well-being. Therefore, the company or organisation essentially to invest and do benefit-plan in high-quality financial well-being program in a workplace to increase employees' financial knowledge and monetary health. Hewitt (2015) found that 76% of employers plan to expand their focus on the financial well-being of their employees in 2014 and beyond. It happens because; employers have the awareness about the financial management and the important of financial well-being towards the future of their employees.

CONCLUSION

As a conclusion, financial well-being become one of the hottest and most discussed topics among the community related to financial management. Most of the organizations need to provide training in financial well-being due to the results showed that the employees are facing with the financial stress even they have knowledge in financial. Therefore, it will lead to the low performance in workplace. Additionally, the employees' financial well-being is important measured using health rather than wealth. This is because most of the employees are unhealthy due to suffer on financial depression. The understanding of the financial management is important to avoid the financial depression. The employee also needs to understand the concept of financial well-being because it will consider they are being financially well. For future research, the researcher should consider financial self-efficacy and financial help-seeking behaviour to determinant the financial well-being. These factors will improve the low-medium income earners' financial well-being by seeking financial help as well as reducing financial stress.

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LABOUR MARKET POLICIES AND TOURISM DEVELOPMENT: FINDING THE RIGHT BALANCE FOR SUSTAINABLE GROWTH

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ABSTRACT

This study examines the relationship between Kerala, India's tourism industry, and labour market policies, with a particular focus on striking the correct balance for long-term prosperity. Kerala is well-known for its thriving tourist sector, which makes a substantial economic contribution to the state. But the quick rise in tourism has sparked worries about environmental degradation, wealth inequality, and labour exploitation, therefore sensible labour market laws must be put in place. The labour market policies Kerala's government implemented to address issues and opportunities associated with the expansion of the tourism sector are examined in this study. It evaluates the effectiveness of education and training programs in enhancing the employability and skill sets of the labour force in the tourism sector in the region. By emphasising the importance of achieving the correct balance between labour market policies and tourism growth, the study's findings add to the conversation about Kerala's sustainable tourism development. In addition to making suggestions for companies, governments, and other stakeholders on how to accomplish inclusive and sustainable tourism growth in Kerala, it offers insights into the possible synergies between economic, social, and environmental goals. To ensure long-term sustainable growth in the industry and the general well-being of its workers, Kerala must strike this balance between maximising the positive effects of tourism and minimising its negative ones.

Keywords: Sustainable Growth, Tourism Development, Labour market Policies

INTRODUCTION

The tourism sector creates jobs and propels development in many nations, making it a major contributor to the expansion of the world economy. However, difficulties related to the labour market, such as job insecurity, low wages, and exploitation, have also been linked to the industry's expansion. Therefore, the sustained expansion of the tourism industry depends on striking the correct balance between labour market policies and tourism development.

The purpose of this research is to investigate how labour market policies and sustainable tourist industry growth are related. The study's specific goal is to pinpoint the potential and problems related to labour market rules and how they affect the expansion of sustainable tourism. The study will also look at how industry players and policymakers can collaborate to strike the correct balance between labour market regulations and the growth of the tourism sector.

In order to collect thorough data, the study will use a mixed-methods strategy that combines quantitative and qualitative approaches. While semi-structured interviews will be done to obtain

qualitative insights, a survey questionnaire will be used to collect quantitative data. The intended audience will be people who work in the tourism sector, such as legislators, trade associations, labour market participants, and workers in the tourism business.

The study's conclusions are anticipated to have a big impact on players in the tourist sector and government. The study's recommendations will aid in the creation of policies that support the industry's sustainable expansion while attending to labour market demands. The report will also emphasise how crucial it is for government and industry partners to work together to make sure that labour market regulations are in line with business requirements. All things considered, the literature this study adds to will help us better understand how labour market regulations and sustainable tourist sector growth are related. Policymakers and industry stakeholders will find the study's conclusions to be helpful in ensuring that the tourist industry's growth is sustainable and advantageous for all parties concerned.

RESEARCH METHODOLOGY

Research Design:

In order to collect thorough data, the research will use a mixed-methods strategy that combines quantitative and qualitative approaches. Semi-structured interviews will be used to provide qualitative insights, while a survey questionnaire will be used to collect quantitative data.

Sampling:

The intended audience will be people who work in the tourism sector, such as legislators, trade associations, labour market participants, and workers in the tourism business. Purposive sampling will be employed to choose individuals whose backgrounds and areas of expertise align with the goals of the study.

Data Collection:

- a. Survey Questionnaire: To collect quantitative data, a systematic questionnaire will be created. Closed-ended questions will be included in the survey to gauge respondents' opinions on the significance of labour market regulations and how they affect the expansion of sustainable tourism.
- b. Semi-structured Interviews: To provide qualitative insights into particular cases where the harmony between labour market policies and tourism development has favourably influenced sustainable growth, in-depth interviews will be held with a selection of participants.

Data Analysis:

- a. Quantitative Data: To ascertain correlations between variables, statistical analysis will be performed on the survey results utilising metrics like frequencies, percentages, and chi-square tests.
- b. Qualitative Data: To gain a deeper understanding of the experiences and viewpoints given by participants, thematic analysis will be utilised to find recurrent patterns and themes in the transcripts of the interviews.

Ethical Considerations:

The entire study process will adhere to ethical requirements. All participants will be asked for their informed consent, and their privacy and anonymity will be protected. Additionally, the study will abide by ethical guidelines for conducting research involving human beings as well as data protection laws.

Validity and Reliability:

Triangulation of data from several sources will be used to guarantee the authenticity of the research findings. The study's reliability will also be improved by the inclusion of varied participant perspectives and the use of standardised survey questionnaires.

Limitations:

Constraints on participant availability, possible answer biases in survey data, and the necessity of carefully managing the subjective character of qualitative data are examples of potential study limits. We will acknowledge and try our best to address these constraints.

The study hopes to offer useful insights into the connection between labour market policies and sustainable growth in the tourism sector by utilising this extensive research approach. This will enable policymakers and industry stakeholders to make informed decisions.

Hypothesis:

- Null hypothesis (H0): Finding the right balance between labour market policies and tourism development does not contribute to sustainable growth.
- Alternative hypothesis (HA): Finding the right balance between labour market policies and tourism development contributes to sustainable growth in the tourism industry.

REVIEW OF LITERATURE

In a 2018 study, Kumar and Rajan looked at how Kerala's sustainable tourism industry was growing in relation to labour market regulations. The study underlined the necessity of strong laws to defend employees' rights and provide fair pay in the travel and tourism sector.

Nair and Pillai (2017) investigated the connection between Kerala's growing tourism industry and labour market regulations. The research emphasised the significance of skill development initiatives in augmenting the employability of the regional labour force.

The purpose of Thomas and Joseph's (2019) study was to examine how minimum wage regulations in Kerala's tourism industry support decent work. According to the research, minimum wage levels are necessary to guarantee equitable remuneration for workers in the tourism industry.

Rajan and Nair's (2017) study looked at how social discourse influences labour market regulations for Kerala's sustainable tourism growth. The importance of stakeholder participation in guaranteeing the inclusion of many perspectives and interests was underscored by the study.

In their 2019 study, Kumar and Pillai examined how labour market regulations affected the standard of employment in Kerala's tourism industry. The study made clear how important it is to have laws that support career advancement, skill improvement, and job stability.

Rajesh and Thomas (2018) conducted a comparative examination of the labour market policies that are in place in Kerala and other tourist destinations in order to facilitate sustainable growth. The study gave Kerala policymakers important insights by identifying best practises and lessons discovered from various places.

In a 2016 study, Vijayakumar and Gopinath examined the connection between environmental sustainability and labour market regulations in Kerala's tourism sector. The study made clear how important it is to have laws that protect workers' health and welfare in addition to addressing the effects of tourism on the environment.

Rajan and Joseph (2019) looked at possible trade-offs between cost competitiveness and labour market reforms in Kerala's tourist industry. The report stressed how crucial it is to strike a balance in order to guarantee decent working conditions without

ANALYSIS AND INTERPRETATIONS

In order to examine the information obtained from the survey, a chi-square analysis was performed to ascertain whether there was a noteworthy correlation between the answers to the questions. The chi-square test results are displayed below.

The chi-square test was conducted with a significance level of 0.05. The test revealed that the relationship between the responses to the two questions was statistically significant ($\chi^2 = 4.42$, $df = 1$, $p = 0.035$).

The findings show that respondents who thought that striking the correct balance between tourism development and labour market policies was crucial for the tourism industry's sustainable growth were also more likely to have seen examples of how such a balance had benefited the sector's sustainable growth. This shows that the two variables are related and that, in order to support the tourism industry's sustainable growth, labour market policy and tourism development must be balanced.

The results of this investigation align with earlier studies that have recognised the significance of labour market regulations in the travel and tourist sector. The findings imply that politicians and industry stakeholders ought to collaborate in order to create regulations that support the industry's sustainable expansion while simultaneously attending to the demands of the labour market. This could involve investing in the training and skill development of the tourism workforce, having flexible labour laws that can adapt to the varying demands of the tourism business, and holding frequent stakeholder discussions to make sure labour laws are in line with industry needs.

FINDINGS OF THE STUDY

The study's conclusions suggest that for the tourist sector to flourish sustainably, it is crucial to strike the correct balance between labour market regulations and tourism development. Most respondents concurred that the industry's expansion depends on striking a balance between these two elements. Furthermore, a statistically significant correlation was observed between the two questions' responses, suggesting that individuals who thought it was crucial to strike the correct balance between labour market policies and tourism development were also more likely to have seen examples of how such a balance had benefited the industry's ability to grow sustainably.

The research additionally recognised certain hindrances to achieving an appropriate equilibrium between the expansion of the tourism sector and labour market regulations. These challenges included a lack of collaboration between government agencies and industry players, conflicting interests between the labour and tourism sectors, and challenges estimating and fulfilling future labour market demands. Finding the ideal balance, according to the respondents, might be aided by regular stakeholder collaboration and consultations, flexible labour laws, and investments in skill development and training for the tourism industry.

CONCLUSION

It is recommended that policymakers and tourism industry stakeholders consider the findings

of this study. They suggest that legislation be drafted to both meet the needs of the labour market and facilitate the industry's long-term growth. The findings also highlight how important it is for industry and government partners to collaborate in order to ensure that labour market policies are aligned with corporate needs.

In conclusion, maintaining a healthy balance between labour market policies and tourist development is essential to the tourism industry's continued growth. Policymakers should work with industry stakeholders to develop policies that facilitate the industry's sustainable growth while also addressing labour market needs, according to the study's results. It is recommended that policymakers and tourism industry stakeholders consider the findings of this study. They suggest that legislation be drafted to both meet the needs of the labour market and facilitate the industry's long-term growth. The findings also highlight how important it is for industry and government partners to collaborate in order to ensure that labour market policies are aligned with corporate needs.

In conclusion, maintaining a healthy balance between labour market policies and tourist development is essential to the tourism industry's continued growth. Policymakers should work with industry stakeholders to develop policies that facilitate the industry's sustainable growth while also addressing labour market needs, according to the study's results.

RECOMMENDATIONS

Flexible Labour Policies: Policymakers should consider implementing flexible labour policies that can accommodate the seasonal and fluctuating demands of the tourism industry. This could include provisions for temporary or part-time employment during peak tourism seasons and the ability to scale up the workforce as needed.

Investment in Training and Skill Development: There should be a focus on investing in training and skill development programs for the tourism workforce. This can help in addressing the specific needs of the industry and ensuring that the workforce is equipped to meet the demands of the tourism sector. **Address Conflicting Interests:** Efforts should be made to address conflicting interests between labour and tourism sectors. This may involve creating forums for dialogue and negotiation to find mutually beneficial solutions that support sustainable growth and the well-being of the workforce.

Study and Monitoring: It's critical to conduct ongoing research and analyse changes in the labour market and how they affect the travel and tourism sector. This will help in identifying emerging challenges and opportunities, allowing for proactive policy adjustments.

By implementing these recommendations, policymakers and industry stakeholders can work towards creating an environment that supports sustainable growth in the tourism industry while ensuring that labour market needs are effectively addressed.

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THE APPLICATION OF LEAN PRINCIPLES IN ENHANCING QUALITY MANAGEMENT: A CASE STUDY AT RELIANCE INDUSTRIES LTD.

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ABSTRACT

The petrochemical industry is one of the fastest growing industries world-wide. The petrochemical industry plays a pro-vital role in the economic development of a nation. The industry supports other industries by supplying raw materials for their functioning. The quality management system of the petrochemical industry is of immense importance as the petrochemical products cover almost all areas such as construction, clothing, agriculture, horticulture, automobiles, medical equipment and so on. The application of lean manufacturing principles by minimizing wastes will lead to quality enrichment and higher productivity. Quality management is a buzz word in the manufacturing sector to attain customer focus.

Case study method is used in this study to examine the application of lean principles in quality management of Reliance Industries Ltd. Reliance Industries Ltd. is selected for this study as this company is the leading petrochemical industry in India. The objective of this study is to learn the application of lean principles and its impact on quality management. The data needed for the study is collected by circulating a structured questionnaire (Google form) from 60 senior employees in the production area by following simple random sampling method. The study reveals that the application of lean principles impacts quality management of Reliance Industries Ltd. The study also reveals that the application of lean principles at Reliance Industries Ltd. is high and that is one of the success mantras for Reliance Industries Ltd. to be the leader in petrochemical industry in India.

Key words: Petrochemical Industry, Lean Principles, Quality Management, Reliance Industries Ltd.

INTRODUCTION

The petrochemical industry is one of the largest and fastest-growing industries in the world which is expected to have a global market value of \$651 at the end of 2027 (Prophecy Market Insights 2022). This industry supports other manufacturing industries for their functioning by supplying needed petrochemicals and other related products. The petrochemical industry is expected to supply 60% of primary energy globally by 2050 (Dr Fatih Birol, 2018).

The petrochemical industry in India shows a positive growth with a growth rate of 15%. The major players in India include Reliance, Haldia Petrochemical Company, Indian Oil Corporation, Gas Authority of India, Natural Organic Chemical Industry Ltd, Manali Petrochemical Ltd, The Andhra Petrochemical Ltd, and Tamil Nadu Petrochemical Ltd.

The application of lean manufacturing principles fosters industrial growth by attaining productivity through eliminating all possible wastes and making the manufacturing process simple. Lean principles enable production units to have an optimized production process that eliminates all possible wastes thereby maximizing productivity. Lean manufacturing is a set of globally accepted production principles favoring the continuous improvement of organizations. The application of lean principles positively impacts quality and focuses on overall organizational development.

Quality management is a core functional area in the production system, which enables the creation of standardized and consistent products which is free from defects and deficiencies. Quality is not a matter of chance, planned interventions, and organization-wide vision and strategy intent are required to attain the state of set quality. The application of various quality principles, philosophies, and strategies enables organizations to attain the set quality standards.

Objectives of the Study

- To examine the application of lean principles in the Reliance Industries Ltd in India.
- To examine the effect of lean principles in enhancing quality management in the petrochemical industry in India.

RESEARCH METHODOLOGY

Case study method is used in this study to examine the application of lean principles in quality management of Reliance Industries Ltd. Reliance Industries Ltd. is selected for this study as this company is the leading petrochemical industry in India. The data needed for the study is collected from primary and secondary sources. Primary data has been collected from the senior management employees of Reliance Petrochemical Industries, and the secondary data has been collected from research articles, magazines, websites, and other published works. 60 senior-level employees of Reliance Industries Ltd, Mumbai have been selected randomly. The data gathered by circulating Google forms has been analyzed with IBM SPSS software.

Application of Lean Principles in the Reliance Petrochemical Industry

Lean principles are widely accepted and applied in manufacturing sectors with an objective to reduce cost, enhance quality and improve productivity. Organizations across the globe widely accept lean principles as it positively impacts organizational efficiency. The application of lean principles in Reliance Industries Ltd. were analyzed in the below mentioned table.

Table No. 1
Descriptive Statistics – Benefits of Lean Principles

Lean Principles	N	Mean	Rank Order
Reduce overproduction	60	4.01	
Reduce Movement of raw materials	60	4.25	

Reduce the defects of products	60	4.38	
Less Waste		4.21	2
Reduce lead time	60	3.73	
Demand forecasting	60	4.03	
Reviewing suppliers	60	3.80	
Reduce inventory		3.85	5
Workforce support Productivity	60	4.12	
Satisfied Workforce	60	4.60	
Management of operational cost	60	3.73	
Increase Productivity		4.15	3
Quality policy	60	4.63	
Benchmarking practices	60	4.17	
Facility support quality assurance	60	4.10	
Higher Quality		4.30	1
Meet customer expectations	60	4.03	
Value customer	60	3.54	
Focus on relationship management	60	4.22	
Customer focus		3.93	4

Source: Survey data

The analysis reveals the benefits sought out by the application of lean principles in the Reliance Industries Ltd. Attaining a higher level of quality is the most perceived benefit by the implementation of lean principles followed by reduction in waste and improved productivity. The least benefit attained by the implementation of lean principles is the reduction in inventory followed by giving attention to the customers.

Lean Principles and its Effect on Quality Management

The lean principles are widely accepted by recognizing its advantages in promoting the organization to attain efficiency and productivity. For an organization like Reliance Industries Ltd. the success journey spells so many inevitable factors and strategies. Attaining customer satisfaction by focusing on quality standards and policies are crucial factors contributing to success. The application lean principles and its effect on quality management is mentioned below.

Table No. 2
Descriptive Statistics - Quality Management Policy

Quality Management Policy	N	Mean
Quality policy align with customer requirement	60	4.53
Help to integrate business process	60	4.72
Help for continuous improvement	60	4.67
Predicted risk	60	4.73
Help for employee involvement	60	4.77

Source: Survey data

The analysis portrays all the quality policies prevailing at Reliance Industries Ltd. is having high effect. From this table it's evident that Reliance Industries Ltd. is emphasizing more on quality management.

Table No 3
Model summary – Lean Principles and it'seffect on QM

Model	R	R Square	Adjusted R Square	Std. Error of the estimate
1	.609 ^a	.511	.299	1.08212
a. Predictors: (Constant), LM				

Source: Survey data

Table No. 4
ANOVA - Lean Principles and its effect on QM

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	30.666	1	30.666	26.188	.000 ^b
Residual	67.917	58	1.171		
Total	98.583	59			
a. Dependent Variable: QP Total					
b. Predictors: (Constant), LM					

Source: Survey data

The effect of lean principles in supporting quality management of Reliance Industries Ltd. is tested and the analysis shows a positive correlation on the application of lean principles in quality management as the R value is .609. The model is found fit as the F value is 26.188 and the obtained significant value is .000 which is less than 0.05. The prediction of the effect of lean principles in quality management is valid and the model is 51.1% true as the R square value is .511.

Table no: 5
Coefficients– Quality Management

Model B		Unstandardized Coefficients		Standardized Coefficients	t	Sig. Tolerance	Collinearity Statistics	
		Std. Error	Beta				VIF	
1	(Constant)	11.981	3.452		3.471	.002		
	Less Waste	-.021	.248	.023	-.086	.932	.383	2.608
	Reduce Inventory	.431	.282	.573	1.530	.039	.446	2.243
	Increase Productivity	.257	.250	.247	1.028	.314	.458	2.182
	Quality Policy	-.155	.303	.126	-.510	.015	.431	2.318
	Customer Focus	.310	.221	.297	1.404	.173	.592	1.689
a. Dependent Variable: QP Total								

Source: Survey data

The quality management practices prevailing at Reliance Industries Ltd. can be predicted in future by applying the equation,

Quality management (Y) = A + (B*X1) + (C*X2) + (D*X3) + (E*X4) = (F*X5), i.e. [Quality management (Y) = 11.981 + (Less Waste * .021) + (Reduce Inventory * .431) + (Increase Productivity * .257) + (Quality Policy * .155) + (Customer Focus * .310)].

There is no multi co linearity among the independent variables as the tolerance limit is less than 0.90. Further, the analysis reveals that the perceived quality management can be individually predicted by the application of reduced inventory and quality policy, as the P Value obtained is less than 0.05. But the prevailing quality management cannot be individually predicted by the application of waste reduction, increased productivity and customer focus as the P Value obtained is greater than 0.05.

The quality management prevailing at Reliance Industries Ltd. is derived by the application of reduced inventory as the Beta coefficient is higher (.573) followed by customer focus (.297) and increased productivity (.247).

SUGGESTIONS

Reliance Industries Ltd. is the largest producer of petrochemicals in the nation with a positive track record of growth. The Quality philosophy of Reliance Industries Ltd. leads the organization to grow and expand in the petrochemical market. The quality management of the company favors the attainment of customer requirements, ensuring employee involvement, integrating various business processes, and favors continuous improvements. The application of various quality standards, strategies, principles, and philosophies is yet another reason for the attainment of higher quality levels.

The application of lean principles enables the company to gain higher quality standards as there exists a significant positive correlation. The implementation of lean principles helps the organization to attain certain benefits that favor continuous improvements in quality. The perceived benefits of lean manufacturing such as attaining high-quality standards, reducing waste, and increasing productivity are having a high effect. The certain benefits of lean principles such as helping in reducing inventory and focusing on customer requirements need special emphasis as these factors are crucial for the attainment of higher quality levels leading to growth and expansion.

In order to manage inventories proper demand forecasting is required. The inventory strategies adopted need to be reviewed and revised to establish a real-time reporting system. The introduction of Artificial Intelligence-based enterprise resource planning systems enables the organization to strengthen the inventory management system. The activities of the organization need to be in align with customer requirements even if the company is following a B2B business model. A customer-centric production system prioritizing customer values and voice will strengthen the company to move in line with customer focus.

CONCLUSION

Petrochemical Industries play a crucial role in the present scenario by favoring economic development and acting as a source of raw materials for other industries for their functioning. Quality management of Reliance Industries Ltd. is one of the factors that led the company to the top position in petrochemical industries in India. The application of lean principles has a significant effect in supporting quality management. The application of lean principles can be promoted to other petrochemical industries and allied manufacturing industries to promote the industrialization of the Nation thereby attaining economic development.

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HOW TO PREPARE AN ORGANIZATION FOR A CIRCULAR ECONOMY? EXPERIENCES FROM A DUTCH MUNICIPALITY IN A ROAD RECONSTRUCTION PROJECT

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ABSTRACT

In the transition towards a circular economy municipalities play a crucial role. At this level many open questions about the do's and don'ts need to be answered. The Netherlands municipality of Apeldoorn shows her circular ambitions in a European H2020 project called CityLoops, where seven municipalities are piloting demonstration actions to close the loop of Construction & Demolition Waste (CDW). This paper sets out the experiences of Apeldoorn in her ambition to close material loops in a road reconstruction project, because the environmental impact of these projects is severe. In total eight research and demonstration projects are identified and reflected to show the reader how a municipal organisation can prepare herself with a network of stakeholders for a circular economy.

INTRODUCTION

In 2016 the Dutch government expressed the ambition to have a full 100% circular economy before 2050. In multiple other countries comparable ambitions were expressed and are being pursued. In the Netherlands, also an intermediate goal was set for 2030, namely to have a 50% reduction in primary resources, consisting of minerals, fossil fuels and metals (Min. of I&WM, 2016). In the transition towards a circular economy municipalities play a crucial role. Municipalities fulfil important roles as principal, designer, or advisor when it comes to services, landscaping, and buildings. In other words, they shape our built environment. To achieve these public works, multiple internal departments and external companies need to collaborate and, at this level, many open questions about the do's and don'ts need to be answered.

In the European Horizon 2020 project CityLoops, municipalities develop and test tools that help in enhancing a circular economy regarding organic and construction & demolition waste (CDW) (City Loops, 2023). The City Loops project started in October 2019 and took four years. The participating municipalities executed different sorts of organic and CDW projects as circularly as possible. The Netherlands municipality of Apeldoorn also showed her circular ambitions in City Loops and piloted demonstration actions to close the loop of Construction & Demolition Waste (CDW). This municipality is located closely the centre of the Netherlands. Its population is estimated to be over 165,000 inhabitants. Considering this number of residents and with a surface of approximately 341 km², Apeldoorn is by Dutch standards a relatively large municipality.

To provide other scholars, professionals and civil servants insights about the mentioned do's and don'ts, this paper sets out the experiences of Apeldoorn in her ambition to close material loops in a road reconstruction project, because the environmental impact of this kind of building activities is severe. In our analysis, we build on theories of transition management. We pay specific attention to the way in which Apeldoorn builds its internal and external coalitions, as this proves to be difficult and essential. By the end of this paper we will, based on the experiences of this road reconstruction projects draw our conclusion on how to prepare an municipal organization for a circular economy.

RESEARCH SETUP

Regarding Apeldoorn's CDW stream, all demonstration actions are related to one particular case; a road reconstruction project. This kind of project is regularly taking place in many municipalities all around the world, making it a lovely case in which the experiences gained can be copied and scaled up to other road reconstruction projects and maybe even to other construction projects. The reconstruction is about a paved road named Griffiersveld. Constructed in 1976, it is located in a residential area called De Maten. The winding road Griffiersveld (see Figure 1) consists of concrete pavers and concrete paving slabs covering a surface of approximately 4,785 m² (see Figure 2 for an impression).

Already quite quickly after the start of the H2020 City Loops project, this reconstruction project was spotted as a potential candidate for the much needed demonstration actions. Only one main research action had started prior to the definitive case selection, namely that one in which the sand and soil site of the municipality was being studied (Entrop, 2021). It turned out that all phases of initiating, designing, preparing and executing the Griffiersveld reconstruction project nicely fit between start and finish of the City Loops project, as is shown in Figure 3. On site, actual construction activities took place between July 2022 and December 2022. In nine phases of approximately two weeks each, the hindrance for residents regarding accessibility was tried to be reduced to a minimum. However, due to shortages of personnel some delay did take place, resulting in little activity for a few weeks during the project.



Figure 1. The particular residential area with its winding road Griffiersveld (Google Maps <https://goo.gl/maps/aYBjWgmMwCgRk4vA8>).



Figure 2. Impression of the local situation at Griffiersveld in the municipality of Apeldoorn, before reconstruction took place.

This project represents a situation that is very recognizable for many municipalities in the world on an annual, monthly, or even weekly basis, namely the reconstruction of a paved residential road. When planning, designing, and executing a road reconstruction project, multiple departments within the municipal organization, as well as different external organizations, need to collaborate. To the stakeholders involved in this project, circular material usage was introduced as a new specific sustainable objective, while traditional constraints like time and costs still existed of course.

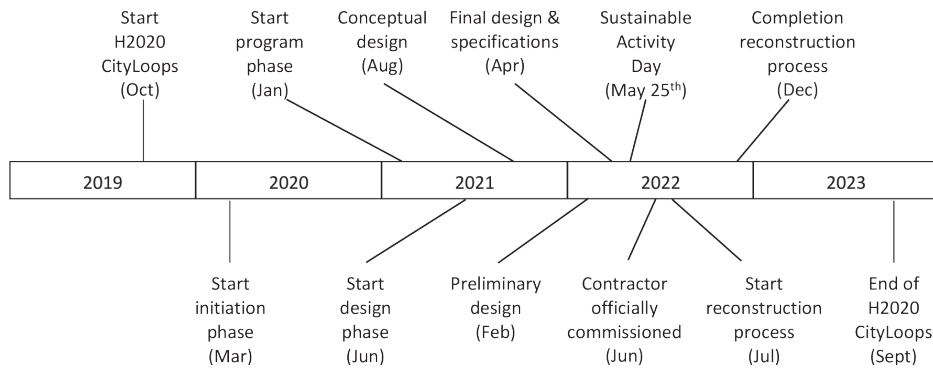


Figure 3. Time line for the reconstruction project of the residential road Griffiersveld.

THEORETICAL BACK GROUND ON MUNICIPALITIES AIMING FOR A CIRCULAR BUILDING ECONOMY

The awareness that projects or investments need to be regarded from a broader perspective than solely from an economic perspective, was clearly put forward by Elkington by introducing a triple bottom line using the words People, Planet, Profit (Elkington, 1997). After the much needed focus on sustainability, more recently the concept of circularity -in which materials loops are being closed-gains momentum. After analysing 114 definitions of this concept, Kirchherr, et al. (2017) defined a circular economy as “an economic system that replaces the ‘end-of-life’ concept with reducing, alternatively reusing, recycling and recovering materials in production/distribution and consumption processes” (ibid, p. 229). When it comes to the construction industry, the national Netherlands Transition Agenda Circular Building offers the following translated definition (Nelissen, 2018): *circular building means to develop, use and reuse buildings, areas, and infrastructure without unnecessary depleting natural sources, without wasting the environment and without affecting ecosystems. It is a way of building that can be justified economically and that contributes to human and animal welfare, here and there, at present and for the future.* In that same year, Reike et al. (2018) offered on basis of a literature study a systematic overview of R-concepts distinguishing different levels of circularity reaching from R0 Refusing products to R9 Re-mining land filled material. Campbell-Johnston et al. (2020) even seemed to be able to integrate the triple bottom line in a framework that brings value considerations, decision making and the R-cascading principles together. In line with Arfaoui et al. (2022), the research set out in this paper also considers the people, by means of the stakeholders or even actors involved.

RESULTS OF A CIRCULAR TRANSITION IN ROAD RECONSTRUCTION

This section elaborates on the results in preparing, designing, executing and evaluating the reconstruction of Griffiersveld as part of the H2020 City Loops project. In the end all eight research and demonstration actions, that are more or less in a chronological order in this section, resulted in the new physical appearance of the renovated road, accompanied by multiple digital models and many lessons learned. Most of these results have also been communicated more elaborate in the City Loops Demonstration Report of the Municipality of Apeldoorn (Entrop, 2023), which can be found on the City Loops website.

1. Involving new stakeholders in the design process through a

process journey

The Municipality of Apeldoorn wondered how to align the stakeholders in this public infrastructural project to come to a circular and, at the same time, executable project. The experiment consisted of going through a complete co-design process aiming for the reconstruction of Griffiersveld (as described in Entrop et al., 2022). To Apeldoorn, this was a new way of initiating a road reconstruction project and it was in collaboration with new stakeholders. After interviewing individual stakeholders, multiple interactive co-design sessions were organised, which gave shape to the process journey. This process journey encompassed three so-called sprints. One sprint focused on the design of the new road for Griffiersveld by addressing two questions, namely “How, by who and where can second hand materials be reused?” and “When and how is required information provided?” The second sprint focused on scalability through developing toolkits describing how the implementation of circular design methods, techniques and measures. In the third sprint the stakeholders suggested focused on material passports that need to be adopted and in other to be able to supply them with data materials in use need to be scanned.

2. Setting up a triple layered circular business model

Municipalities offer multiple common goods, constructing and maintaining roads and therefore offering a possibility to be mobile, is such a common good. It is not an easy task to correctly value such a commodity. Residents do not directly pay for owning or using the road in front of their house and the municipality is obliged to facilitate safe transport and maintain liveable attractive neighbourhoods. In this project a literature study and interviews showed that a triple layered canvas might be able to help to come to some business models (Tartarin, 2021). The three layers reflect on economic, environmental and social values when renovating a road circularly. By the end of the project, when actual emissions had been assessed and costs had been known, Jacques Bazen was able to give insights in the emissions and costs of renovating Griffiersveld when different levels of circularity are reached. The social aspect of the project was not monetaryised.

3. Collecting and storing data for material passports

Material and project passports seem to be part of the solution to improve insights and sharing information on quantities and qualities of materials used in construction projects. The municipality of Apeldoorn operates a GIS-based Municipal Management Information System, in Dutch Gemeentelijk Beheer Informatiesysteem (GBI), of AnteaGroup to store data related to the management and maintenance of public works. Approximately once every two years, a visual inspection takes place to make sure the roads are clean, whole and safe. Inspections like these make it possible to check if the municipality’s information in GBI still corresponds with the actual situation. When aesthetics, usability and/or safety fall short in real life, an intervention will be planned. An intervention might consist of relatively simple repairs up to a complete reconstruction of the road and surrounding public space.

An MS Excel file extracted from the GBI-system shows that the Municipality of Apeldoorn distinguishes up to 53 different characteristics for each road section. These characteristics include the road’s identity, location, typology, inspection date, year of origin, maintenance year, appearance, safety level, width, surface and perimeter of the particular road section. A significant number of these 53 characteristics are particularly useful when focusing on the quality of asphalt roads, but are less relevant to roads consisting of concrete pavers or paving slabs. Furthermore, it is striking to see that many cells addressing the qualitative characteristics of road sections are empty, due to missing

data. Available data helps assess the quality of a road section by means of pavement unevenness, grout width, appearance and safety. Quantities by means of the total number of pavers or paving slabs, their original sizes and original product mass are currently not provided. The main actors involved are not addressed either, so it might not be an easy task to learn more about the product's manufacturer, the road's contractor, contracted repairmen, inspector or principal (Entrop, 2022).

Various scanning equipment and procedures were employed by InfraFocus and Wegenscanner-sonsite in an experiment in collecting actual road data to be added in the GBI asset management database. This resulted in a large amount of different data files that have been interpreted and incorporated into the existing database structure of the municipality completing the project passport.

4. Visualising the road and material use in 3D GIS

A 3D model of any construction project can help to get a better understanding of the challenge that lays ahead. It might provide insights on how to handle which materials exactly and how to close materials loops. A 3D model can provide an overview in the form of a map accompanied by information about, among others, the age, quantity, quality, composition, and location of materials. The student project report of Van den Boog et al. (2022) provides a detailed description of how a 3D model was developed for the municipality of Apeldoorn. For other municipalities or owners of road infrastructure Appendix IV in their report explains in seven steps how a 3D model can be derived. Since the municipality of Apeldoorn uses the asset management software GBI as a database, a GIS-based platform seemed appropriate to come to a 3D model of the local built environment. With the help of Ronald Visser of Saxion the 3D model was also able to show the different layers of the road construction and a colour scheme (Green: concrete pavers are still of good quality from a technical and aesthetic point of view. Orange: tiles and pavers still meet basic technical requirements, however, they are no longer aesthetically pleasing. Red: tiles and pavers no longer meet technical and aesthetic requirements) could be applied to define the end of life options.

5. Conducting circular procurement

As organised within the CityLoops project for all participating municipalities, Apeldoorn was also informed about how circular procurement can be realised. The theoretical basis was provided by Van Oppen et al. (2018) and through presentations and workshops provided by Rijkswaterstaat a circular procurement trajectory was developed for Griffiersveld. Three contractors made an effort to clearly explain what vision they have regarding the reconstruction process, time management and circularity in reconstructing Griffiersveld. The winning contractor (one out of three participating contractors) offered in total six measures and three options to improve circularity. By actively implementing three out of six measures the environmental impact was significantly reduced. When the project is being executed, it is important that the principal stays in close contact with the contractor to make sure that all measures are being implemented. The sunny side in this project was that by applying two measures very successfully, namely the reuse of concrete paving stones nearby and the reuse of sand as a foundation, two other measures (breaking concrete waste materials for reuse in new concrete and reusing sand directly in new projects nearby) were hard to implement.

6. Matching platform for construction materials

Already in an early stage of the project the Municipality of Apeldoorn was aware that a platform was needed to make sure that materials can be offered for reuse and materials can be collected to be reused. An online market platform was invited to participate and a team of students started designing a dedicated online market place. When it was noticed that the online matching tool DuSpot had

some advantages compared to these two, a trial period not limited to Griffiersveld was started, which ended in December 2022. After that, the matching tool came available to enable material loops in Apeldoorn's projects to be closed. The material depots of the municipality also became available as spots in DuSpot.

7. Organising a Sustainable Activity Day to inform residents

Before the actual execution of the reconstruction process took place, a Sustainable Activity Day was organised on the 25th of May 2022 in collaboration with the local housing association. Although the municipality had to deviate from the original plan to let residents participate in the design process of the road reconstruction project, due to COVID-regulations and digital inexperience among a significant part of the residents, it was possible during the Sustainable Activity Day to have face-to-face meetings to inform citizens on the circularity element of their road reconstruction. A poster and brochures informed the residents about which particular circular measures were going to be taken. The contractor, carrying out the reconstruction, was present to provide information. In this way, the contractor was already able to work on his relationship management with the residents, which was seen as beneficial to the later construction process.

8. CO₂ transport calculator

Within the H2020 CityLoops project consortium Klaus Kellermann of Roskilde municipality developed a CO₂ calculator for circular soil handling (CityLoops, 2023). For the project in Apeldoorn this calculator was adapted by Lisanne Hagen of Saxion UAS to the Dutch setting, in which the use of other equipment resulted in slightly different emission factors. During the reconstruction of Griffiersveld material transport data was collected. The total data collection encompassed over 300 road trips moving materials to and from the construction site. This data still needs to be analysed in further detail, but could not have been collected without the help of the contractor, suppliers and manufacturers involved.

ANALYSIS

The former section presented eight research and demonstration action, which one can regard as sub-projects. Elkington (1997) states that for sustainable projects in general a triple bottom line needs to be met, covering a societal (people), an environmental (planet) and an economic perspective (profit), where in the past for many companies only the economic perspective prevailed. We can notice that the eight sub-projects in Apeldoorn can partially align with that, because:

- from a societal perspective internally a co-design process to align stakeholders and externally a participation trajectory with residents took place;
- from an environmental, as well as quite technical, perspective the development of material depots was undertaken, the adoption of material passports took place and road data was collected and visualized to enable the reuse of products;
- from an economic perspective business models were studied, an online matching tool was adopted and a CO₂ transport indicator was applied.

When we pay specific attention to the way in which Apeldoorn built its internal and external coalitions within the CityLoops project, specific actors and stakeholders were entering, but also leaving the demonstration project. The research group Sustainable Areas and Soil Transitions of Saxion UAS was a partner within the H2020 CityLoops consortium. They helped the municipality in all eight research and demonstration projects by offering insights and developing tools to come to circularity,

as well as by monitoring and reporting the projects.

It was noticed that at the start of the reconstruction project a civil servant of the municipality of Apeldoorn was able to operate as a change agent and really tried to get new partners on board hoping that this would enable to break with the conventional way of working linearly and not circularly. One (new) partner was invited to help the municipality in the process to collaborate with multiple other new partners, namely two road scanning companies and an online matching platform for materials and products. In this initial design phase of the project, it was also new that the developer of the by the municipality adopted asset management software joined the team, and that two departments of the municipality were working parallel with each other, instead of serial; one after another.

However, the online matching platform did not deliver the municipality the services as requested. Hence, no materials coming out of Griffiersveld, nor going in, were traded through this platform. Saxion students suggested and designed a new online platform to trade products and materials for civil engineering projects. However, only in a final stage the trading tool DuSpot was adopted, that also encompasses data of the material depots. These materials depots were initiated by the municipality herself.

The road scanning services were delivered as requested. These companies handed in data, that was stored in the asset management system of the municipality. Unfortunately, the data was not yet completely automatically collected and uploaded. The same accounts for the data from the visual inspection using a drone after the reconstruction took place. Although the data of the two road scanners generated some new insights, it would have been more useful for asphalt roads. In this case visual inspections were still needed to assess the quality of the pavers in place.

After the design phase the change agent of the municipality left the organisation. However, the seed to conduct this project more circular than the road reconstruction projects before, seemed to have been planted. Material depots were designed and opened their doors facilitating in much needed storing space, but not for the reconstruction of Griffiersveld. The contractor, selected in a circularity adapted procurement process, made namely sure that almost all products were being reused within the close proximity of the site.

CONCLUSION

The result of the circular demonstration project is physically clearly present. The ambition was to renovate a street or section of at least 3000 m². In total a paved surface of 4.785 m² was reconstructed, without taking the surface of the kerb stones into account. For the road's foundation much sand stayed onsite, instead of bringing in debris from elsewhere, and 500 m² of onsite concrete pavers were reused in this residential road reconstruction project. Griffiersveld was renovated with 49 tonnes less CO₂ equivalent emissions compared to using only new virgin materials. Old concrete pavers, concrete tile slabs and some kerb stones were reused within the municipality and only two containers left the site with concrete waste materials to be broken down to aggregates for new concrete.

H2020 CityLoops brought an increased knowledge and awareness within the municipal organisation of Apeldoorn, by means of circularity now being part of design and procurement processes. The municipality is now facilitating multiple material depots, using asset management software as a project passport, and has adopted an online matching application. External to the municipal organization, multiple residents and companies now have experienced that closing material loops is clearly a new focal point. Taking circularity into account offers new opportunities to reduce your

environmental impact, to reduce costs or to increase turnover. Apeldoorn and Saxion UAS organised multiple events and participated in local, national and international events to actively disseminate the derived experiences and insights.

On the other hand, also some obstacles were experienced during the demonstration project. We were not able to turn the decision to apply a new brown concrete paver, due to the requirements set by the welfare committee. If they would have agreed, we could reduce the project's environmental impact by 174 tonnes of CO_{2e} emissions. This new paver chosen for aesthetic reasons by the urban planner to replace for approximately 90% the old worn out pavers did not encompass any recycled concrete aggregates; only virgin materials were used. Furthermore, used concrete products are generally low valued, while their handling and transport are quite labour intensive and costly. Old usable concrete pavers and curb stones needed to be provided to local agricultural organisations for free or else downcycling by means of crushing it into a concrete aggregate would be the only option.

RECOMMENDATIONS

Our research and experiences reveals that many tools to come to a sustainable project can be adopted by a municipality, but becoming circular seems to be at another level. We have no doubts that things during these four years changed for the better, due to the continuous interference of multiple change agents in the eight demonstration actions specified. Trying not to fall into repetition, we provide the following three main recommendations.

1. Have a structure in place for (automatically collected) project and material data

The Municipality of Apeldoorn has by means of her asset management system, a structure in place to store relevant quantitatively and qualitative information on road materials for a specific road or road section. It is this data that makes up the project passport for Griffiersveld after automated data collection had taken place. It could speed up the circular transition, if other (municipal) organisations know that such an existing system can be used to facilitate them in the transition; it might not be necessary to develop completely new information systems. Road scans can provide additional insights in the status of road materials and 3D-GIS-data can be used to assess the volumes of material to be moved, indicating the workload and simplifying the planning process. However, developments are still needed to interpret data and to further automate data storage.

2. Short lines between principal and a committed contractor

In the procurement process, the municipality, as a principal, clearly asked for circular ideas and measures. The bidding contractors were willing to make an effort to explain what vision they have regarding the reconstruction process, time management and circularity in reconstructing Griffiersveld. The winning contractor offered in total nine measures to improve circularity. By actively implementing three out of nine measures the environmental impact was significantly reduced. Three measures were not adopted due to the extra costs. When a project is being executed, it is important that the principal stays in close contact with the contractor to make sure that all measures are being implemented. The sunny side in this project was that by applying two measures very successfully, namely the reuse of concrete paving stones nearby and the reuse of sand as a foundation, two other measures were hard to implement. During the execution of the reconstruction, it was experienced that the main contractor was able to recognize various practical possibilities within its network to reuse materials instead of considering them as waste. The lesson learned here is to as a principal be

open to the practical ideas of the contractor and maybe even other organisations in the field.

3. Know what's in store and what can be put in store to others

For organisations designing and executing construction projects, it is important to be able to share their product and material needs and to get insights in which materials and products are available. This means that one needs to be affiliated with a proper material depot and/or online market place. The online matching tool DuSpot was adopted by the municipality of Apeldoorn. The material depots of the municipality are also spots in DuSpot, so that one can see what's currently in store.

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IMPACT OF VARIOUS DEMOGRAPHIC FACTORS INFLUENCING CUSTOMER SATISFACTION - AN EMPIRICAL STUDY ON ELECTRONIC PRODUCTS IN VELLORE DISTRICT

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ABSTRACT

Customers around the world are increasingly using the internet to shop because of their demanding and sophisticated lifestyles, and it is becoming more popular in Vellore district as well. As a developing country, it undoubtedly has many potential customers for internet business. Customers' satisfaction does not always remain the same or constant in every shopping it changes all the time. Several factors influence customer satisfaction. Manufacturers who can study customer satisfaction will be able to win the most market share. Several factors influence the level of customer satisfaction. In this study, we attempted to determine how and to what extent these demographic factors influence customer satisfaction. Needed primary data was gathered using a questionnaire. The study used percentage analysis and Chi-square to demonstrate that demographic factors such as age, gender, marital status, education, occupation, and family size are significant predictors of satisfaction.

Key Words: *Customer satisfaction, Customer perception, Internet shopping, Demographic Factors, Chi-square.*

INTRODUCTION

The world wide web has evolved a large global market for the exchange of products and amenities in recent years. In many developed countries, the internet has become a vital platform, providing a diverse range of products with 24-hour access and comprehensive coverage. Throughout the e-commerce market cycle, the customer uses the internet for a variety of purposes, including: searching for product features, pricing, or reviews, selecting goods and services via the internet, purchasing, paying premiums, or any other means, delivery of the appropriate product via the internet, or any other means, and, finally, sales service. Needs and desires are limitless and change over depends situations also from place to place and from person to person. Customers in the Vellore district, Tamil Nadu, is particularly interested in customer research as shoppers, academics, professors, business owners, and marketers.

By closely examining the review literature, the researcher found that there has been a substantial quantity of study on consumer activity. Furthermore, it is also accurate that there have not been many investigations into electrical products in the Vellore region. The objective of this study is to investigate and acquire information about customers into online shopping for electronic items in relation to the economy of this district, so there was a huge market for research in this sector there too. That is the prime motivation for considering this area of study and setting. Consequently, it is essential to place bigger emphasis on determining customer satisfaction levels as they are insightfully involved in the purchasing process through online stores. The researcher set the following objectives to complete the voids left by earlier studies: 1) To focus on the importance and necessity

of customer satisfaction level. 2) To study the effect of demographic factors on customer satisfaction in electronic products in Vellore Districts.

FACTORS INFLUENCING CUSTOMER SATISFACTION THROUGH ONLINE SHOPPING

Customer perception does not always remain constant or stable in all circumstances; it shifts over time. A number of factors influence customer satisfaction. Changes in these variables result in changes in Customer Satisfaction. The following factors influence customer satisfaction.

Cantillon et al. (2015) defined demographic factors in the following ways: Demographic elements or variables include age, gender, marital status, occupation, family size, educational level, income level, nationality, religion, geography, and so on. Also, in the case of some products or services, geographical variations may be influential, particularly in Western countries. Marketers go to great lengths to investigate and analyse psychological behaviours in order to better understand current customer variations based on region. The inclusion of this regional information can help advertisers target the most effective and cost-effective mailings, advertisements, or personal sales. Finally, in most cases, psychological factors influence customer satisfaction. Finally, in most cases, psychological factors influence customer satisfaction. Abraham Maslow developed a pyramid-shaped hierarchy of needs that ranges from the uttermost basic urgent basic demands such as food, thirstiness, and shelter to the most luxurious non-essentials. According to Maslow, people should prioritise their needs, starting with the physiological. The pyramid begins with the most basic acute corporal necessities, for instance the basic human needs, and progresses to the most opulent non-essentials. According to Maslow, people should prioritise their needs, starting with the physiological.

REVIEW OF LITERATURE

Asha (2017) stated that people can benefit more from e-commerce for both social and purchasing purposes. This study focuses on customer purchasing behaviour and satisfaction with the impact of demographic factors in online shopping, as well as understanding customer preferences in online shopping platforms. This research uses the descriptive method, and using convenience sampling technique, with 142 respondents using a structured questionnaire as a representative sample. The key findings are as that some demographic factors influence customer purchase behaviour and satisfaction in e-commerce.

Archana and Dhiman Kuvad (2017) describe the level of customer satisfaction in Gujarat e-commerce. This study's primary goals are to better understand customer purchasing behaviour and gender differences in purchasing behaviour. This is a quantitative study, and primary data will be collected via a questionnaire. There will be each 50 respondents from male and female category in this sample. According to findings of this study, people in Gujarat enjoy shopping, and the majority of respondents are unaware of shopping mall safety measures. Men and women do not behave differently when it comes to purchasing.

Anderson, Paul F. (1986), said in his work that a critical relativist approach on consumer and buyer behaviour research. It was argued that a relativistic explanation of that vicinity was far superior to a positivist paradigm though since: it supplied a more apt depiction as to how knowledge was generated in the field.

P. Bagozzi Bagozzi, Richard P. (2000), Based on the research of renowned contemporary phi-

losophers, a radical idea of social truths is provided that is based on how a group's members see themselves and the consequences for collective activity. Group activity, in turn, is established to necessitate conceptual frameworks that differ from those frequently implemented for individual action or interpersonal and research shows that nearly views. Their study's goal was to promote research on the social dimensions of consumer behaviour, primarily as observed in groups of clients and exhibited through collective action.

Dhevika VPT et al. (2014) discovered in their research that the six components influence online customers. Payment security, reliability, and design are also essential factors in purchasing. The bargaining of purchases isn't a large mix of security and style characteristics / website performance and typical online shopping behaviour.

Price, quality of goods, and after-sales service and information about websites and products, speed delivery, simple on-line buying, and confidence in vendors are all essential criteria for consumers, according to Gurleen K (2001).

According to Johnson (1999), online shopping purchasing behaviour is also known as customer purchasing behaviour. These five factors are directly related to online purchasing behaviour and include e-stores, equipment and training, product attributes, website technological characteristics, information features, and home screen display. According to surveys, those who live interconnected lifestyles and have limited time shop online less.

Hasslinger (2007) specifies customer behaviour as follows: to improve and entice online customers, it is important to recognise their behaviour as well as what their demand and necessity. Digital spending is a new platform with new customer requirements. whole customer has different product desires besides expectations, it is important for all businesses to recognise and value their web-based resources.

Joseph D. Brown (1972) studied the degree of loyalty and the variables that appear to effect consumer pleasure through online shopping in his study, which was based on interviews with 198 shoppers in Muncie, Indiana. The research thoroughly explored both methodology and processes. One-third of internet buyers were entirely devoted to one store; 81% purchased at least one private brand; and one-third were faithful purchasers of private levels. Price and quality are the two most significant loyalty considerations, with price being more essential.

Kumar Rakesh (2011) stated that the customer is the central focus of all marketing initiatives. Understanding his actions and needs is one of the most important aspects of promotion. Customer behaviour study was conducted at all stages of the purchasing process, beginning prior to purchase.

According to Na Wang's study (2008), online retail and customer satisfaction are impacted by variables which including accessibility, trustworthiness, information comparability, perceived risks, secrecy, web design, easy to access, occupational status, and internet knowledge. social, personal, Culture and psychological behaviour all influence internet purchasing habit. Expectations have an influence on online purchasing.

Palan, Kay M., and Robert E. Wilkes (1997) produced a classification of both teenage influence methods and parental response strategies through interviews with youths, mothers, and father in their study. Furthermore, the perceived efficacy of youth persuasion is investigated, finding that adolescents would be most adept in their influence efforts when individuals replicate adult strategies.

Rodriguez(2009) stated that Online shopping behaviour depends on independent dimensions, personality factors, digital knowledge, shopping motives, and last factor is shopping bonuses. These are major elements of online customerbehaviours. Online researchers are the primary sources of information for online shoppers since they want to get information quickly and easily, for instance competitor varieties, best price, product specifications, also user feedback.

Vellido et al. (2000) found that nine parameters connected with consumer attitude were the biggest determinant between consumers from online and offline shopping. Other different aspects are online convenience, price, service quality, shopping process, and comfort of its use.

RESEARCH GAP

Following a thorough review of the review literature, the researcher discovered that there has a significant amount of research on customer behaviour research. However, it is also factual that there are few explores have been conducted in Vellore district from the field of electrical items. The goal of this research is to discover and gain customer insights into online shopping for electronic items in relation to the economy of this district, so there was a high demand for research in this sector as well. That is the primary reason for selecting this topic and location.

OBJECTIVES OF THE STUDY:

1. To focus on the importance and necessity of customersatisfaction level.
2. To study the effect of demographic factors on customer satisfaction in electronic products in Vellore Districts.

Hypothesis:

H0:No Significant Impact of Demographic Factors on Customer Behaviour and their satisfaction level.

H1:Significant Impact of Demographic Factors on CustomerBehaviourand their satisfaction level.

Research Design:

Methodology of Data Collection:

Primary and secondary data are collected to better understand the behaviour of online shoppers and their level of satisfaction with the purchase of electronic products.

- Primary Data: The datawas collected through questionnaire created with google forms.
- Secondary Data The secondary data was collected through: 1. Books and journals.
2. Magazines 3. Research reports 4. Articles from various journals

Sample Design and size:

The study's scope and financial constraints were considered, and 142 customers were chosen at random. The sample fairly represents all popular electrical device brands sold by various companies across the Vellore District.

Sampling Methods:

The primary data was collected using the snowball technique to cover every customer and the indefinite population of online customer.

LIMITATIONS OF THE STUDY

The primary limitations of the present study are: 1. Due to time and financial constraints, the

researcher was unable to fully explore all dimensions of customer behaviour and reach their level of satisfaction.

2. Due to the size of the electronic goods sector, it was not practicable to consider every form of electronic device that is sold today.

Data Analysis:

- Percentage Method and
- Chi-Square Method.

DATA ANALYSIS AND INTERPRETATION

Table 1 Demographic Profile

Variables	Category	Frequency	Percentage
Age	Below 20 years	75	53%
	21 to 30	49	34%
	31 to 40	11	8%
	41 to 50 years	7	5%
	Total	142	100
Gender	Female	122	86%
	Male	20	14%
	Total	142	100
Marital Status	Unmarried	104	73%
	Married	27	19%
	Separated	11	8%
	Total	142	100
Educational status	Under graduate	108	76%
	Post graduate	34	24%
	Total	142	100
Occupation	Private jobs	24	18%
	Government Job	22	15%
	Business	13	9%
	Others	83	58%
	Total	142	100

Source: Primary Data

INFERENCE

From demographic table, Under the category, Age, 53% of the respondents from below 20 years category, 34 % of respondents belongs from the age group 21 to 30 yrs.', 8% Most responses are between the ages of 31 to 40 years, 5 % of the respondents belong to the category 41 to 50 years and above. There are no single responses from 51 yrs. and above.

It's inferred under the gender category, 86 % of the respondents belong to females and 14% of the respondents belong to a male.

Under the category Marital Status, 73% of the respondents belong to the Unmarried category, 19% of the respondents belong to the Married respondents, 8 percent of respondents are from the group Separated.

Under the category educational status, 76% of the respondents completed their Under graduate, 24% of the respondents are completed their post-graduation. Finally, Under the category of Occupation, 18% of the respondents from Private jobs, 15% of respondents belongs from the group Govt jobs., 9% responses are for Business people, The majority 58% of the respondents belong to the category Others, this category includes the Doctorate students who are all getting salary for their work.

Data Interpretation and Analysis:

Table 2: Chi-square Table

	Factors	Age	Gender	Educational Qualification	Marital Status	Occupation
1	Expected vs Actual Product delivery.	0.013 (S*)	0.004 (S*)	0.001 (S)	0.185 (NS)	0.000 (S)
2	Repeated Purchase	0.017 (S*)	0.052 (NS**)	0.000 (S*)	0.121 (NS)	.003 (S)
3	Service quality	0.113 (NS)	0.000 (S)	0.009 (NS)	.001 (S)	.020 (S)
4	Product features	0.198 (NS)	0.261 (NS)	0.557 (NS)	0.168 (NS)	0.059 (NS)
5	Brand Loyalty	0.000 (S)	0.112 (NS)	0.000 (S)	0.492 (NS)	0.003 (S)

The above Chi-square values are calculated through SPSS v26.

* S = Significant; **NS = Not-Significant at critical value of 0.05.

From the above table, the interpretations are as follows:

(1) As against the first factor, there is a significant impact of Age, Gender, Educational Qualification and Occupation on the Gap between Expectations and Actual product delivery.

(2) There is significant impact of Age, Educational qualification and occupation on Repeated purchase

(3) As against the third factor, Gender, Marital Status and Occupation having significant impact on Service quality provided by the Seller.

(4) There is an Acceptance of Null hypothesis.

(5) There is a significant impact on age, educational qualification and occupation on Brand Loyalty.

CONCLUSION

Physical variations between businesses have decreased as a result of technology advancements. Instead, then focusing on a product's physical attributes, differentiation should be based on the meanings that they convey. The development of personality can lead to a successful brand distinction. Today's competitive conditions are changing swiftly, and the most successful businesses are those who strategize and respond to these changes quickly.

In the research, the research concludes that the demographic factors Age, Gender, Educational Qualification and Occupation having significant impact on customer satisfaction and this is reflected during the delivery of Expected vs Actual Product. In the condition of repeated purchase gender and marital status do not have a significant change. For Gender, Marital Status and Occupation having significant impact on Service quality provided by the Seller as a third important factor. Under selecting a product by their features there is no significant differences between the demographic factors. Finally with the brand loyalty, age, educational qualification, and occupation having an impact of buying behaviour.

Marketing research has become a vital and expanding component of marketing investigation. In this study, we sought to understand how Vellore City customers behaved and how satisfied they were with electronic goods. Studying customer behaviour is crucial for manufacturers to do to boost sales and gain the largest possible market share. In conclusion, it has been discovered that there is a relationship between a brand and customer behaviour as it relates to their purchasing choices. Customers are well-informed about the numerous brands available, and as a result, their judgement is vital when making purchases, particularly when doing so for the first time.

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ENVIRONMENTAL IMPACT AND BENEFITS OF WASTE-TO-ENERGY CONVERSION

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ABSTRACT

This paper presents a comprehensive analysis of the environmental impacts and benefits associated with waste-to-energy conversion technologies. Waste-to-energy conversion plays a crucial role in addressing the growing challenges of waste management and energy generation. The study evaluates various methods, including incineration, anaerobic digestion, and pyrolysis, highlighting their environmental implications. It assesses the reduction of landfill waste, greenhouse gas emissions, and energy production from waste materials. The findings indicate that waste-to-energy technologies have the potential to reduce environmental burdens while contributing to sustainable energy generation. The research underscores the importance of policy support and efficient technology implementation for maximizing the environmental benefits of waste-to-energy conversion.

Keywords: *Waste-to-energy, environmental impacts, benefits, waste management, incineration, anaerobic digestion, pyrolysis, landfill reduction, greenhouse gas emissions, sustainable energy, policy support, and technology implementation.*

INTRODUCTION

Waste-to-energy (WTE) conversion is an environmentally responsible sustainable option that is essential for meeting energy demands as well as waste management issues. WTE lowers the amount of garbage dumped in landfills, which lowers methane emissions, by turning municipal solid waste into heat of power. In addition to generating energy that helps power grids and reduces dependency on conventional fossil fuels, this technique reduces pollution to the environment. Modern WTE technologies emphasize greener energy generation by adhering to strict regulations, despite worries about emissions. By balancing energy production and waste reduction, WTE offers a comprehensive strategy for promoting a more eco-friendly and productive future.

REVIEW OF LITERATURE

1. M. A. Kashem and colleagues' "Environmental Impact Assessment of Waste-to-Energy Technologies: A Review" (2019). This review looks at how several waste-to-energy methods, such as pyrolysis, gasification, and incineration, affect the environment.

2. S. M. S. Islam et al' "Waste-to-Energy: A Review on the Sustainable Conversion of Waste into Energy" (2017). With an emphasis on the possibility of sustainable development, this paper evaluates the advantages of waste-to-energy conversion from an economic, environmental, and social standpoint.

3. J. D. Restrepo and colleagues' "Global Review of Waste-to-Energy Technology" (2017). The

environmental and financial performance of waste-to-energy technologies, such as anaerobic digestion, gasification, and incineration, is examined in this paper, which offers a worldwide overview of the field.

4. “Environmental Impact of Solid Waste Management Activities: A Review” by P. S. Kumar, et al. (2019). This review evaluates the environmental impact of various solid waste management activities, including waste-to-energy conversion, and highlights the need for sustainable waste management practices.

5. “Waste-to-Energy Conversion Technologies and Their Environmental Implications: A Review” by M. T. K. Khan, et al. (2018). This review assesses the environmental implications of various waste-to-energy conversion technologies, including incineration, anaerobic digestion, and pyrolysis, and analyzes their potential for sustainable energy generation.

6. “A Review of Waste-to-Energy Technologies and Their Contribution to Sustainable Development” by C. A. Okolo, et al. (2019). This review examines the contribution of waste-to-energy technologies to sustainable development, with a focus on their economic, environmental, and social benefits.

STATEMENT OF THE PROBLEM

The growing amount of waste produced worldwide is a serious threat to the environment, as traditional disposal techniques pollute land and water. Investigating waste-to-energy conversion technology is necessary to address this problem. The issue is a lack of thorough knowledge about the possible advantages and effects these conversion procedures may have on the environment. Regarding emissions, resource use, and long-term ecological effects, there are uncertainties. The feasibility of waste-to-energy solutions must be thoroughly examined to make sure they support sustainable development objectives and make a beneficial contribution to energy generation and environmental preservation.

OBJECTIVES OF THE STUDY

1. To study how Waste-to-energy initiatives can reduce the amount of waste that ends up in landfills.
2. To Evaluate the environmental impact of waste-to-energy conversion.
3. To Assess the economic and social benefits associated with waste-to-energy technologies

METHODS OF THE STUDY

RESEARCH DESIGN

Research Type:

Mixed-methods approach incorporating quantitative and qualitative methods

SAMPLING METHOD

- i. Determine which waste-to-energy facilities to sample.
- ii. Stratified sampling according to the kind of technology and the geographical location.

SAMPLE SIZE

For this study, 50 samples were selected, specifically Biowaste from Wayanad District.

DATA COLLECTION

Questionnaire: A systematic questionnaire intended to evaluate work-related issues, family du-

ties, stress levels, job satisfaction, and general well-being will be used to gather data on work-life balance. The chosen participants will receive the questionnaire face-to-face.

DATA ANALYSIS

Cost-Benefit Analysis (CBA): Examining both the economic costs and benefits associated with waste-to-energy projects helps in decision-making and policy formulation.

Social Cost-Benefit Analysis: Considers the broad environmental impact and benefits of Waste-to-energy conversion.

Financial Cost-Benefit Analysis: Focuses on financial metrics, such as return on investment and net present value.

DATA ANALYSIS

Waste-to-energy (WTE) programs are essential for waste management since they cut down on the amount of waste that is dumped in landfills. In addition to addressing the problem of limited landfill capacity, this lessens the negative environmental effects of conventional garbage disposal techniques. A thorough Cost-Benefit Analysis (CBA) reveals if WTE initiatives are economically viable. Making well-informed decisions and formulating policies is aided by weighing the costs and rewards. In order to make sure that WTE technologies provide sustainable economic benefits, financial CBA carefully examines measures such as return on investment.

A social cost-benefit analysis offers a comprehensive perspective that goes beyond financial considerations and takes into account broader environmental benefits and consequences. WTE conversion can reduce greenhouse gas emissions, which helps to slow down global warming. Moreover, it reduces reliance on fossil fuels, in line with the objectives of global sustainability. Socially, these technologies improve energy security and open up job prospects. However, strict regulatory procedures are required due to potential environmental problems, such as air pollutants from the combustion process.

To sum up, WTE projects offer a variety of benefits that take into account economic feasibility, waste management, and wider environmental and social factors. Efficient execution, directed by comprehensive evaluations, is essential for optimizing advantages while minimizing possible disadvantages.

CONCLUSION

Waste-to-energy (WTE) initiatives play a pivotal role in waste management, mitigating environmental issues and yielding economic and social benefits. By diverting waste from landfills, these technologies contribute to reduced methane emissions, a potent greenhouse gas produced in decomposing organic waste. Consequently, WTE aids in curbing air and water pollution associated with traditional landfill disposal, positively impacting local ecosystems. The environmental evaluation of waste-to-energy conversion involves assessing emissions from the combustion process. While concerns about air pollutants exist, advanced technologies, such as filters and scrubbers, are employed to minimize adverse effects. Moreover, the energy generated from waste helps offset reliance on fossil fuels, indirectly reducing carbon footprints.

Economically, waste-to-energy systems create jobs in construction, operation, and maintenance, fostering economic growth. Additionally, the revenue generated from selling electricity produced

during the waste conversion process can offset costs, making these projects financially viable. Socially, WTE facilities often involve local communities in waste collection programs, promoting awareness and responsible waste disposal practices.

In conclusion, waste-to-energy conversion presents a multifaceted solution. While addressing waste management challenges, it simultaneously offers environmental benefits, economic opportunities, and social engagement. Properly implemented and regulated, WTE technologies contribute to a sustainable and integrated approach to waste and energy management.

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GREEN HRM: PRACTICES AND STRATEGIC IMPLEMENTATION IN THE ORGANIZATIONS

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ABSTRACT

Green Human Resource Management practices are the most important aspect in creating a green workforce that not only understands, but also values and implements environmental initiatives throughout the HRM process. There is increasing require for strategic Green HRM the combination of environmental management into HRM. Organizations Human Resource function can be important in helping a broad approach for making a culture of sustainability. Secondary data has been used to identify the existing GHRM initiatives and green practices in organizations. This study focuses on various green HRM practices followed in the organization. Green HR is when the field of Human Resource focuses on expanding its role to support the organization in the pursuit of Sustainability Company such as google, IBM, HONDA, GOLD MAN, STARBUCKS has already made significant efforts to GHRM.

Key words: *Green Human Resource Management, sustainability, Human Resource*

INTRODUCTION

Green Human Resource Management (HRM) is an approach that focuses on integrating environmentally sustainable practices into the organization's HRM policies and activities. It involves the incorporation of environmental considerations into HRM processes to promote sustainability and reduce the organization's ecological footprint. Green Human Resource Management (HRM): Practices and Strategic Implementation in Organizations." This project delves into the intersection of environmental sustainability and HRM, exploring how organizations can adopt eco-friendly practices in their human resource strategies. Join us on this journey as we examine the innovative approaches and strategic implementations that contribute to a greener, more sustainable future for both businesses and the planet. In the contemporary landscape of business, the convergence of human resource management and environmental sustainability has given rise to the intriguing field of "Green Human Resource Management (HRM)." This project aims to unravel the intricacies of this dynamic relationship, exploring the integration of eco-conscious practices within HR strategies. As organizations grapple with the imperative to embrace sustainable initiatives, we will delve into the multifaceted aspects of Green HRM.

From recruitment and employee engagement to training and development, we will dissect how organizations can align their HR practices with environmental responsibility. Our journey extends beyond theory, delving into real-world examples and strategic implementations that showcase the tangible impact of Green HRM. By examining case studies and success stories, we aspire to provide insights that empower organizations to make informed decisions, fostering a workplace culture that not only values its human capital but also champions environmental stewardship. Join us in unravel-

ing the nuanced tapestry of Green HRM, where the fusion of human-centric practices and ecological consciousness paves the way for a sustainable future within the corporate landscape.

LITERATURE REVIEW

Sapna and anjaligupta(2012) have conducted a study on implementation of Green human resource management practices: Barriers and solutions and found out that all GHRM practices have a mean rating of greater than 3 which indicates a moderate level of implementation in organizations. The key practices that are being highly followed in manufacturing and service organization are green involvement, green training and development and green performance appraisal.

Rkmishra, shulganasarkar, and J kiramai (2014) has conducted a study on Green HRM innovation approach in Indian public enterprise and found out that GHRM is in its nascent stage in Indian companies but what is more concerning that there is low realisation and acceptance among organisations for greening the existing HRM processes and practices. The organisations can best participate for protecting environment with low cost initiative of GHRM practices. The future of Green HRM as an innovative process.

Nayak and Goel (2014) did a study based on the Green banking practices and also provided some recommendation in which they urged for some changes in the routine operations of banks specially in adopting paperless banking, online banking, mobile banking, mobile banking, mass transportation system and green cards made up of recycled plastic.

Muhammed Hassan Jabbar and Muhammed Abid (2015) did a study on green HRM practices and impact on environmental performance And concluded that GHRM enables organisation to reduce their cost and invest their resources for the betterment of environment. Companies that are able to align practices and Human resource dimensions with objectives of environmental management can be successful in the organisation.

Objectives of the Study

- To identify specific Green HRM practices adopted by organization
- To analyse the positive impacts of Green HRM on the environment and organizational performance.
- To analyze the integration of Green HRM into an organization's overall corporate strategy.
- To measure challenges and barriers in implementing Green HRM practices.

RESEARCH METHODOLOGY

The data used in this study are secondary in nature. It is collected from different sources like published articles, journals, reports, books and websites.

GREEN HUMAN RESOURCE MANAGEMENT

Green Human Resource Management (Green HRM) is an approach that integrates environmental sustainability into human resource management practices within an organization. The primary goal is to align HR strategies with the broader environmental goals of the organization, promoting sustainability and responsible business practices. Green HRM recognizes the impact that human resource activities can have on the environment and seeks to minimize negative effects while fostering a culture of environmental responsibility.

GREEN HUMAN RESOURCE MANAGEMENT (HRM) PRACTICES

Organizations adopt various Green Human Resource Management (HRM) practices to integrate sustainability into their operations. These practices aim to align HR strategies with environmental goals and contribute to overall corporate sustainability. Here are some common Green HRM practices that organizations may adopt:-

❖ **Green recruitment**

Green recruitment can be defined as the process of hiring individuals with knowledge, skills, approaches, and behaviors that identify with environmental management systems within an organization. Green recruiting is a system where the focus is given on importance of the environment and making it a major element within the organization it provides the employer with an opportunity to stand ahead of the crowd and further increase their chance of attracting the candidates and retain them after induction.

❖ **Green performance management**

Performance management (PM) is the process by which employees are prompted to enhance their professional skills that help to achieve the organizational goals and objectives in a better way. green performance appraisal should focus upon issues such as environmental incidents, environmental responsibilities, communication of environmental policy, and green information system and audits. The job description should be aligned with green tasks and goals to be achieved

❖ **Green training and development**

Green training and development educate employees about the value of EM, train them in working methods that conserve energy, reduce waste, diffuse environmental awareness within the organization, and provide opportunity to engage employees in environmental problem-solving. sustainable training and education employees should also be adept to educate the customers regarding the advantages of becoming more earth-friendly and buying green products.

❖ **Green compensation**

Rewards and compensation can be assumed as potential tools for supporting environmental activities in organizations. Employee compensation programs can be modified to give bonuses based in part on the employee's appraisal ratings on the behavioral and technical competencies. Green rewards can include the use of workplace and lifestyle benefits, ranging from carbon credit offsets to free bicycles, to engage people in the green agenda while continuing to recognize their contribution.

❖ **Green employee relations**

Employee relations are that aspect of HRM which is concerned with establishing amicable employer-employee relationship. The relationship facilitates motivation and morale of the employees as well as, increases the productivity. Employee relations involve employee participation and empowerment activities. It also helps prevent and resolve problems arisen at workplace that may affect the work. In fact, positive employee relations are an intangible and enduring asset and a source of competitive advantage for any organization.

❖ **Sustainable Compensation and Benefits**

Offering financial incentives for eco-friendly behaviors. Providing benefits that support a sustainable lifestyle, such as flexible work arrangements. Employee Engagement Initiatives.

❖ **Employee Engagement Initiatives**

Establishing green teams or committees to drive sustainability initiatives. Encouraging employee participation in environmental projects and activities.

❖ **Green Workplace Practices**

Implementing energy-saving measures in the workplace. Promoting waste reduction, recycling, and responsible resource consumption.

POSITIVE IMPACTS OF GREEN HRM ON THE ENVIRONMENT AND ORGANIZATIONAL PERFORMANCE

Green Human Resource Management (Green HRM) practices can have positive impacts on both the environment and organizational performance. Here are some key positive effects.

Positive Impacts on the Environment:

➤ **Reduced Carbon Footprint:**

Green HRM practices, such as promoting telecommuting, flexible work arrangements, and eco-friendly commuting options, contribute to a reduction in employee commuting-related emissions, thus lowering the organization's overall carbon footprint.

➤ **Energy Conservation:**

Implementation of energy-efficient practices in the workplace, such as energy-saving technologies and policies, contributes to reduced energy consumption, leading to lower environmental impact.

➤ **Waste Reduction:**

Green HRM encourages practices like recycling, reduction of paper usage, and proper waste disposal, resulting in less environmental pollution and a smaller contribution to landfills.

➤ **Sustainable Supply Chain:**

Collaboration with environmentally conscious suppliers and the adoption of green procurement practices contribute to a more sustainable supply chain, reducing the environmental impact of the organization's operations.

➤ **Biodiversity Conservation:**

Organizations that incorporate environmental considerations into their HR practices may contribute to biodiversity conservation by adopting policies that protect natural habitats and ecosystems.

➤ **Compliance with Environmental Regulations:**

Green HRM practices ensure that the organization complies with environmental regulations, reducing the risk of legal issues and promoting responsible environmental stewardship.

Positive Impacts on Organizational Performance:

❖ **Enhanced Employee Morale and Engagement:**

Green HRM initiatives demonstrate the organization's commitment to environmental responsibility, fostering a positive workplace culture. Employees who identify with the organization's values are likely to be more engaged and motivated.

❖ **Improved Corporate Image:**

Organizations that prioritize sustainability through Green HRM practices often enjoy a positive

public perception. This enhanced corporate image can attract environmentally conscious customers, partners, and investors.

❖ **Cost Savings:**

Green HRM practices, such as energy efficiency measures and waste reduction, can lead to cost savings for the organization. Reduced energy consumption and waste management costs contribute to improved financial performance.

❖ **Talent Attraction and Retention:**

The commitment to environmental sustainability can be a compelling factor for attracting and retaining top talent. Employees increasingly seek employers who share their values, including a commitment to environmental responsibility.

❖ **Innovation and Creativity:**

Green HRM fosters a culture of innovation by encouraging employees to think creatively about sustainable practices. This can lead to the development of innovative products, services, or processes that align with environmental goals.

❖ **Risk Management:**

By integrating environmental considerations into HR policies, organizations can mitigate risks associated with environmental issues. Proactive management of environmental risks contributes to long-term organizational resilience.

❖ **Competitive Advantage:**

Organizations that differentiate themselves through environmentally sustainable practices gain a competitive edge. This can be particularly important in industries where sustainability is a key factor in customer decision-making.

❖ **Regulatory Compliance:**

Aligning HR practices with environmental regulations ensures that the organization operates within legal boundaries, reducing the risk of fines or legal actions that could negatively impact performance.

❖ **Long-Term Viability:**

Green HRM contributes to the organization's long-term viability by promoting practices that are in harmony with the environment. This sustainability focus positions the organization for continued success in a world where environmental concerns are increasingly significant.

Green HRM practices not only benefit the environment by promoting sustainable behaviors but also positively impact organizational performance by enhancing employee engagement, reducing costs, and creating a competitive advantage in the marketplace. The dual focus on environmental and organizational goals contributes to a more holistic and responsible approach to business management.

INTEGRATION OF GREEN HRM INTO AN ORGANIZATION'S OVERALL CORPORATE STRATEGY

Green Human Resource Management (GHRM) integrates environmentally sustainable practices into HR functions, including recruitment, training, performance appraisal, compensation, workplace

design, communication, supply chain management, flexible work arrangements, and waste management. It aims to promote eco-friendly behavior and contribute to environmental sustainability within organizations. Green practices are being implemented, and companies are creating human resource strategies to promote environmental management programs. As per the study “Green HRM in India: An Initiative for Environmental protection” by Mamta Arora, Green Human Resources Management is focused on the green movement, which is concerned with environmental conservation and the preservation of the planet Earth from potential disasters. The GHRM activities mentioned in this section can help the organization improve both its environmental and financial performance.

CHALLENGES AND BARRIERS IN IMPLEMENTING GREEN HRM PRACTICES.

- **Lack of Awareness and Understanding:**
Employees and management may lack awareness and understanding of the importance of Green HRM and its potential benefits. Without a clear understanding of the environmental impact and the rationale behind Green HRM practices, organizations may struggle to gain support for implementation.
- **Resistance to Change:**
Resistance from employees and management to adopt new green practices and modify existing HR processes. Overcoming resistance requires effective change management strategies and communication to highlight the positive impact of sustainability initiatives.
- **Resource Constraints:**
Limited financial resources and time may hinder the implementation of Green HRM initiatives. Organizations may face difficulties allocating resources for training, technology upgrades, and the development of new policies and procedures.
- **Lack of Green Skills:**
A shortage of employees with the necessary skills and knowledge related to environmental sustainability. Organizations may struggle to find and retain employees with expertise in sustainability, making it challenging to embed green practices into HR functions.
- **Ineffective Communication:**
Poor communication about the organization’s commitment to Green HRM can lead to a lack of employee engagement. Organizations may fail to effectively communicate the benefits of green initiatives, resulting in a lack of buy-in from employees at all levels.
- **Short-Term Focus:**
Organizations focused on short-term goals may prioritize immediate financial gains over long-term sustainability. Green HRM initiatives may face resistance if they are perceived as requiring significant upfront investments without immediate financial returns.
- **Lack of Metrics and Measurement:**
Difficulty in measuring and quantifying the environmental impact of HR practices. Without clear metrics and measurement tools, organizations may struggle to assess the effectiveness of Green HRM initiatives and demonstrate tangible results.
- **Global and Cultural Variations:**
Organizations with a global presence may face challenges in adapting Green HRM practices to diverse cultural and regulatory contexts. Implementing standardized green practices across diverse locations can be complex and may require customization to align with local norms and regulations.
- **Integration with Core Business Strategy:**
Difficulty in integrating Green HRM into the core business strategy of the organization. If environmental sustainability is not aligned with the overall business strategy, Green HRM may be

seen as a peripheral or isolated initiative rather than an integral part of organizational objectives. Addressing these challenges requires a strategic and systematic approach, including raising awareness, fostering a culture of sustainability, providing adequate resources, and integrating green practices into the organization's overall strategy. Successful implementation often involves overcoming these barriers through collaboration, education, and a commitment to long-term environmental responsibility.

CONCLUSION

Green Human Resource Management (HRM) represents a strategic approach to incorporating environmental sustainability into the core functions of an organization's human resource practices. The implementation of Green HRM practices reflects a commitment to balancing economic, social, and environmental considerations in the pursuit of organizational goals. The implementation of Green HRM practices represents a forward-looking strategy that not only contributes to environmental sustainability but also brings about tangible benefits to organizations in terms of reputation, employee satisfaction, and operational efficiency. As the global focus on sustainability intensifies, integrating Green HRM into organizational strategies becomes increasingly imperative for long-term success.

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TEACHERS' PERCEPTION ON THE IMPLEMENTATION OF OUTCOME-BASED EDUCATION: A FRAMEWORK TO MEASURE EMPLOYABILITY

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ABSTRACT

Outcome-based education in the light of National Education Policy 2020 is an educational method that focuses on improving academic quality based on the assessment of educational outcomes at multiple levels. Implementing this student-centric teaching and learning approach focuses on the holistic development of students in molding them employable by imparting practical skills rather than theoretical knowledge. The quality of education will improve in the years to come and will be able to address the threat of unemployment by practicing outcome-based education models. Teachers' role is of immense importance in practicing outcome-based education as the teachers set the course objectives, course plans, content delivery strategies, and assessment methods. The competency and expertise of teachers are of immense importance in practicing outcome-based education to get the desired results. This paper examines the application of outcome-based education and its impact on employability in the management education of Kerala. The study also examines the benefits of outcome-based education and the challenges faced by teachers while practicing outcome-based education in the management education of Kerala. This descriptive study relies on primary and secondary data, primary data has been collected from 60 postgraduate management teachers in Kerala. The study reveals that practicing outcome-based education results in enhancing the employability skills of management graduates. The study also emphasizes the need of addressing various challenges faced by teachers of management education to attain the goal of outcome-based education notion.

Key Words: Outcome Based Education, Management Education, Employability, Challenges.

INTRODUCTION

National Education Policy 2020 is a revolutionary educational policy aimed to provide education universally accessible to all levels of education. The primary focus of National Education Policy 2020 is to restructure and redesign a student centric education ecosystem emphasizing practical learning rather than theoretical learning. The new educational policy witnesses a radical change in the education system, emphasizing more on technology and skill development among graduates and post graduates to make them employable. National Education Policy 2020 redefines the role of education as creating employable graduates with required skill sets rather than conceptual understanding.

Outcome-based education is an education model which supports the assessment of the outcome of educational programs in multiple dimensions. Practicing outcome-based education model is a

planned intervention which enables to set course and education specific targets and measure the outcomes variably and to constantly improve the academic quality. The continuous improvement in the academic quality will result in the creation of employable graduates and bridge the gap between employability and employment.

The concept of outcome-based education has been practiced in various nations and has given desired results. In a developing nation like India the implementation of outcome-based education will continuously improve the quality education and develop employable graduates that suit the industrial requirements, and thereby address the severe threat of unemployment. The implementation of outcome-based education in the real sense is of immense importance to draw the expected results. Proper planning and interventions are required at multiple administrative and academic levels and the awareness regarding the same among all stakeholders especially students is required for the successful implementation of outcome based education.

For a state like Kerala having high literacy rate, the result of practicing outcome-based education will develop and transform employable graduates suitable for the industry with all industrial requirements. Teachers being the frontline warriors in the education system can play a pivotal role in the successful implementation of outcome-based education by inculcating academic planning, benchmarking, assessing, coaching, and mentoring students to be competent and employable graduates possessing all skills expected by the industry.

The practice of outcome-based education in the faculty of management studies is of high relevance, as this two-year postgraduate professional course focuses on shaping management students to be competent managers. The application of the principles of outcome-based education in the domain of management education will focus on developing employable managers with required industrial requisites rather than managers with theoretical knowledge. The practice of outcome-based education in management education will strengthen the management fraternity by creating employable managers with skills and capabilities expected by the industry.

STATEMENT OF THE PROBLEM

Though Kerala is acclaimed as a state popular for its human development index and literacy rate in India, the principles of outcome-based education are not implemented in the full sense in line with National Education Policy 2020. A proper understanding of the principles of outcome-based education and its impact on employability among the stakeholders is necessary to implement the outcome-based education system. The application of outcome-based education and its impact on employability, its perceived benefits, and the challenges associated are the research question addressed in this study. The proper implementation of outcome-based education with a clear understanding of the various principles and their benefits and its impact among all stakeholders is mandatory to bring a revolutionary change in the education sector.

OBJECTIVES OF THE STUDY

The broad objective of the study is to examine the application of outcome-based education and its impact on employability in management education of Kerala.

The specific objectives include:

1. To examine the teachers' perception regarding the benefits of outcome-based education in management education of Kerala.
2. To examine the various challenges faced by management teachers while practicing out-

come-based education.

RESEARCH METHODOLOGY

The study is descriptive in nature. The data needed for the study is gathered from primary and secondary sources. A structured questionnaire in the form of Google Forms is used to gather primary data by interviewing post-graduate management teachers in Kerala. Secondary data needed for the study has been gathered from books, research articles, government manuals, websites, etc. A sample of 60 post-graduate management teachers from six state universities in Kerala (University of Kerala, A P J Abdul Kalam Kerala Technical University, Mahatma Gandhi University, Cochin University of Science and Technology, University of Calicut, Kannur University) were identified randomly for the study. A five-point Likert scale is extensively used to gather data from the respondents. The data so gathered is analyzed with the help of IBM Statistical Packages for Social Sciences (SPSS).

PERCEIVED BENEFITS OF OUTCOME-BASED EDUCATION IN MANAGEMENT EDUCATION

The introduction of outcome-based education turns around the conventional education system which focuses more on what teachers teach as inputs rather than the expected outcome. The core focus of outcome-based education is to set clear objectives of what needs to be attained by the completion of the course as well as at the end of the program. The students and the teachers should have a proper understanding of the curriculum planning, course objectives, assessment at periodic intervals, and teaching pedagogy. In the present study, the various benefits expected out of practicing outcome-based education were mentioned in the below table.

Table no: 1
Descriptive statistics -Perceived Benefits of Outcome-Based Education

Perceived benefits of OBE	N	Mean	Std. Deviation	Rank Order
Clear understanding of the expected outcome of each class at each level, allowing students to progress	60	4.25	.917	1
Teachers have the freedom to choose instructional strategies based on the learner's interest and capacity.	60	4.05	.971	4
Institutions are free to compare outcomes to award the credits of individual students.	60	3.80	1.219	5
Ensuring students involvement in learning concepts by making them responsible for their own learning experience.	60	4.15	.746	2
Analyzing students at multiple phases enables them to provide individual attention to attain the desired result.	60	3.25	1.022	7

Helps students to apply concepts learned and skills acquired in real situations.	60	4.10	1.032	3
Helps to integrate student performance with those needed in the workplace.	60	3.55	.860	6

Source: Primary data

It is evident from the above table that the major perceived benefits of practicing outcome-based education in management education is the clear understanding of the expected outcomes at each level favoring students' progress followed by ensuring students' involvement in learning by making them more responsible. The least perceived benefits of practicing outcome-based education as per the opinion of management teachers are the analysis of students at multiple levels to provide individual attention followed by the integration of students' performance with the workplace requirements.

APPLICATION OF OUTCOME-BASED EDUCATION AND ITS IMPACT ON EMPLOYABILITY SKILLS

Outcome-based education focuses on the integration of theoretical knowledge and the development of practical skills to make graduates employable in the competitive job market. The application of outcome-based education and its role in enhancing the employability skills of management graduates is examined in this study. The teachers' perception towards the enhancement of employability skills of management graduates by the implementation of outcome-based education is mentioned below.

Table no: 2

Descriptive Statistics –Outcome Based Education and its Impact on Employability Skills

Employability Skills	N	Mean	Std. Deviation	Rank Order
Generic Skills				
Communication Skills	60	4.50	1.053	
Problem-Solving	60	4.25	1.052	
Decision Making	60	4.30	1.013	
Initiative	60	4.35	1.022	
Resilience	60	4.15	.860	
Generic Skills Total		4.31		1
Transferable Skills				
Rapport with co-workers	60	4.30	.788	
Teamwork	60	4.35	.732	

Listening	60	4.00	1.008	
Interpersonal skills	60	4.25	.950	
Clerical Skills	60	3.25	1.052	
Transferable Skills Total		4.03		3
Core Skills				
Leadership	60	4.35	.860	
Technical Skills	60	4.00	.957	
Formulation of strategy	60	4.00	1.008	
Management Skills	60	4.05	.811	
Self-Mastery (self-control)	60	4.15	.860	
Core Skills Total		4.11		2

Source: Primary data

The above table highlights the perception of management teachers regarding the enhancement of various employability skills among management graduates by practicing outcome-based education. As per the opinion of the respondents, by the application of outcome-based education principles-graduates are expected to enhance their generic skills followed by core skills and transferable skills.

Table no: 3

Model Summary - Benefits of Outcome Based Education on Employability Skills

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.640 ^a	.480	.399	8.98390

a. Predictors: (Constant), Benefits

Table no: 4

ANOVA - Benefits of Outcome Based Education on Employability Skills

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3247.642	1	3247.642	40.238	.000 ^b
	Residual	4681.208	58			
	Total	7928.850	59			

a. Dependent Variable: Employability skills

b. Predictors: (Constant), Benefits of OBE

Source: Primary data

The application of outcome-based education and its effect on enhancing the employability skills of management graduates as per the opinion of the management teachers is tested. The analysis shows the existence of a positive correlation between the application of outcome-based education and employability skills as the R-value is .640. The model is found to fit as the F value is 40.238 and the significant value obtained is .000, which is less than the significant value 0.05. The prediction of the application of outcome-based education in enhancing the employability skills of management graduates is valid and the model found is 48% true as the R square value is 0.480.

CHALLENGES FACED BY MANAGEMENT TEACHERS WHILE PRACTICING OUTCOME-BASED EDUCATION

The application of outcome-based education favors the higher education sector especially management education as this two-year program focuses more on skill enhancement to make graduates employable. The practice of outcome-based education impacts certain challenges among teachers as this new education system drastically changes the conventional education system. The various challenges faced by management teachers while practicing outcome-based education is discussed in the below table.

Table no: 5
Descriptive Statistics - Challenges Faced by Management Teachers

Challenges Faced by Management Teachers	N	Mean	Deviation	Rank Order
Managing record of students manually	60	3.9	.807	4
Designing an appropriate curriculum	60	3.35	.058	6
Analyzing the vast student database	60	4.55	.675	2
Keeping a check on daily student activity & progress.	60	3.65	.720	5
Prioritizing the weightage of assessments	60	4.65	.481	1
Difficulty in measuring outcomes	60	4.25	.8113	3

Source: Primary data

The analysis reveals that the predominant challenge faced by teachers while practicing outcome-based education is setting the weightage of assessments followed by analyzing the vast database of students and difficulties in measuring outcomes. The lesser challenge while practicing outcome-based education is the difficulties in designing a curriculum followed by keeping the daily progress record of students and managing those records manually.

SUGGESTIONS

The core objective of outcome-based education is to create employable graduates who possess adequate knowledge and skills by maximizing students' learning outcomes. A few suggestions made by the researcher to grab the maximum benefit of outcome-based education in enhancing the employability skills of graduates and to address the various challenges faced by the management teachers while practicing outcome-based education were are:

The development and implementation of an organization-wide enterprise resource planning (ERP) by integrating all curricular, co-curricular, extra-curricular activities to strengthen educational

institutions to derive maximum benefits of outcome-based education and to address the challenges faced by the management teachers while practicing outcome-based education. The implementation of an ERP such as campus management software enables analysis of the students' performances at multiple phases to record students' progress. The software will make the analysis and assessment of students and provide needed reports and information to the teachers regarding students' performance highlighting areas of improvement and core competencies.

Focusing more on industry connect programs, consultancy activities, social outreach programs etc. may enable graduates to sharpen their employability skills to make them more employable. Scheduling industry mentoring frequently by experts in the functional domain may give an insight to the management graduates regarding industrial happenings and workplace culture. Engaging students in consultancy activities and live projects may give them an opportunity to realize how to solve problems and take decisions.

The outcome-based education model emphasizes a student-centric education system where teachers are free to set course objectives and outcomes. In line with that more freedom has to be provided to the teachers to choose instructional strategies and methods to make learning more effective and engaging. Teachers should be aware of the various teaching strategies and methods; proper research and innovation need to be conducted in the field of teaching strategies and methods to adopt appropriate teaching methods in teaching-learning progress.

Group activities and assignments need to be provided to the students to make them adjustable and flexible to work in teams, and to interact with others, as the present organizational system favors teamwork rather than individual efforts. From the recruiters' point of view working in a team is considered as a critical employability skill as all organizational goals are achieved by team efforts.

Awareness among all students, teachers, and non-teaching members regarding the importance and method of practicing outcome-based education is of immense importance as the practice of outcome-based education is a collective and integrative approach, in which all stakeholders have a significant role. Conducting faculty development programs, workshops, seminars, and conferences in the field of outcome-based education is significant in providing proper understanding and awareness of practicing outcome-based education.

CONCLUSION

The outcome-based education model in line with the National Educational Policy 2020 emphasizes a student-centric education system that focuses on empowering students to fit in the labor market by inculcating needed knowledge and required skills. The application of outcome-based education has a significant role in enhancing the employability skills of management graduates in Kerala. Focus on industry outreach programs enables students to be more connected with the industry, thereby enhancing their employability skills. Encouraging team projects and assignment rather than individual assignments enable students to work with team and other interpersonal skills. Proper implementation of outcome-based education may strengthen the education system by creating employable graduates as per industrial requirements, thereby reducing the severe threat of unemployment.

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ADDRESSING THE SKILL GAP IN THE TOURISM INDUSTRY OF KERALA, STRATEGIES FOR BRIDGING THE GAP BETWEEN TOURISM ACADEMIA AND INDUSTRY

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ABSTRACT

Tourism is a vital service sector that plays a pivotal role in the global economy by creating jobs and contributing substantially to GDP. However, despite the rapid growth of higher education in tourism over the past four decades, there are uncertainties regarding the content and nature of tourism degrees and how they align with the industry's requirements. The skill mismatch between education provided and industry personnel is a persistent issue in the field. The paper investigates the challenges encountered by both educational institutions and industry employers and identifies key improvement areas. The study emphasises tourism higher education curriculum design and required skills in the real field and finds a shortage of skills imparted in educational institutions. The paper attracts the attention of all the stakeholders to solve these basic issues by bringing curriculum reform, industry-academic collaboration, targeted training programmes, etc. This study also aims to identify the causes of education's inability to meet industry demands and to propose solutions so that the gap can be filled and the industry grows with leaps and bounds.

Keywords: *Tourism Academia, Gap, Curriculum, Skills*

INTRODUCTION

The tourism industry is a significant contributor to the economy of Kerala, a state known for its natural beauty and cultural heritage. However, like many sectors, it faces the challenge of a skill gap – a discrepancy between the skills possessed by the workforce and those required by the industry. This gap can hinder the growth and competitiveness of the industry, making it crucial to identify strategies for bridging it.

This study aims to explore the skill gap in Kerala's tourism industry, focusing on the role of academia in preparing individuals for careers in this sector. It seeks to understand whether the current academic curriculum aligns with the needs of the industry, the effectiveness of hands-on training, and the level of collaboration between academia and the industry. The hypothesis is that implementing a practical curriculum and promoting industry-academia collaboration can significantly reduce the skill gap. Through a questionnaire distributed to a sample of individuals involved in the tourism industry, the study gathers data on these aspects. The data is then analyzed using various statistical methods, including Chi-square analysis, to test the hypothesis and draw conclusions.

The findings of this study can provide valuable insights into the strategies needed to bridge the

gap between tourism academia and industry in Kerala. They can inform policy and practice, contributing to the development of a more skilled and prepared workforce, and ultimately, the growth and success of Kerala's tourism industry. This introduction sets the stage for the detailed discussion and analysis that follows.

REVIEW OF THE LITERATURE

1. Title: "Tourism Education and Training in India: A Critical Review" Author: R. N. Pandey Year: 2017 This review article critically analyses India's tourism education and training system, including Kerala. The author highlights the need for industry-academia collaboration to bridge the skill gap in the tourism industry and suggests strategies for improving the quality of tourism education and training.

2. Title: "Tourism Education and Training in India: A Review of the Literature" Author: S. K. Singh Year: 2018: This literature review examines the current state of tourism education and training in India, focusing on Kerala. The author identifies the challenges faced by the tourism industry regarding skill mismatch and the need for industry-academia collaboration to bridge the gap. The review also highlights the importance of promoting sustainable tourism development in Kerala.

3. Title: "Bridging the Gap: Industry-Academia Collaboration in Tourism Education and Training" Author: A. K. Singh Year: 2019: This article focuses on the role of industry-academia collaboration in bridging the skill gap in the tourism industry of Kerala. The author provides case studies of successful collaborations between tourism academia and industry in Kerala and suggests strategies for promoting sustainable tourism development through education and training.

4. Title: "Tourism Education and Training in Kerala: Challenges and Opportunities" Author: S. S. Nair Year: 2020: This article provides an overview of the challenges and opportunities associated with tourism education and training in Kerala. The author highlights the need for industry-academia collaboration to bridge the skill gap in the tourism industry and suggests strategies for promoting sustainable tourism development in Kerala.

5. Title: "Bridging the Skill Gap in the Tourism Industry of Kerala: A Review of the Literature" Author: R. S. Pillai Year: 2018: This literature review examines the challenges faced by the tourism industry in Kerala regarding skill mismatch and the need for industry-academia collaboration to bridge the gap. The review also highlights the importance of promoting sustainable tourism development in Kerala.

6. Title: "Promoting Sustainable Tourism Development in Kerala: The Role of Education and Training" Author: K. R. Nair Year: 2019: This article focuses on the role of education and training in promoting sustainable tourism development in Kerala. The author highlights the need for industry-academia collaboration to bridge the skill gap in the tourism industry and suggests strategies for promoting sustainable tourism development through education and training.

7. Title: "Addressing the Skill Gap in the Tourism Industry of Kerala: A Review of the Literature" Author: P. K. Menon Year: 2020: This literature review examines the challenges faced by the tourism industry in Kerala in terms of skill mismatch and the need for industry-academia collaboration to bridge the gap. The review also highlights the importance of promoting sustainable tourism development in Kerala.

8. Title: “Industry-Academia Collaboration in Tourism Education and Training: A Case Study of Kerala” Author: S. R. Nair Year: 2017: This case study examines the successful collaboration between tourism academia and industry in Kerala to bridge the skill gap in the tourism industry. The author highlights the importance of industry-academia collaboration in promoting sustainable tourism development in Kerala.

9. Title: “Strategies for Bridging the Skill Gap in the Tourism Industry of Kerala” Author: M. S. Kumar Year: 2018: This article provides strategies for bridging the skill gap in the tourism industry of Kerala, including promoting industry-academia collaboration, aligning curriculum with industry requirements, and providing training opportunities for both students and employees. The author highlights the importance of promoting sustainable tourism development in Kerala.

10. Title: “The Role of Education and Training in Promoting Sustainable Tourism Development in Kerala” Author: R. K. Nair Year: 2019: This article focuses on the role of education and training in promoting sustainable tourism development in Kerala. The author highlights the need for industry-academia collaboration to bridge the skill gap in the tourism industry and suggests strategies for promoting sustainable tourism development through education and training.

OBJECTIVES OF THE STUDY

1. To identify the perceived skill gap in the tourism industry in Kerala.
2. to evaluate the comprehensiveness and practicality of the current academic curriculum for tourism studies in Kerala
3. to understand the level of collaboration between academia and the industry in Kerala.

METHODOLOGY

1. Research Design: The study will use a descriptive research design to understand the skill gap in Kerala’s tourism industry and identify ways to bridge it.

2. Sample Selection: For the study on the tourism industry in Kerala, a varied group of individuals, such as tour guides, hotel managers, travel agents, and others will be chosen. The size of the sample will be determined based on the available resources and the scope of the study.

3. Data Collection: To collect data, we will use a structured questionnaire that is specifically designed to gather information on various aspects. These aspects include the perceived skill gap in the industry, the comprehensiveness of the current academic curriculum, the effectiveness of hands-on training, and the level of collaboration between academia and the industry.

4. Data Analysis: The data collected will undergo analysis using various statistical methods. Descriptive statistics will be utilized to provide a summary of the data. Additionally, a Chi-square analysis will be conducted to determine the correlation between the perceived skill gap and factors such as the comprehensiveness of the curriculum, effectiveness of hands-on training, and level of industry-academia collaboration.

5. Hypothesis Testing: The study aims to reduce the skill gap in tourism by implementing a practical curriculum and promoting industry-academia collaboration.

6. Reporting: The study’s findings will be presented in a well-organized and structured format. The report will consist of an introduction, literature review, methodology, results, discussion, and

conclusion. Additionally, the report will provide recommendations for policymakers and practitioners in Kerala’s tourism industry based on the study’s results.

Validity and Reliability: Triangulation of data from multiple sources will guarantee research authenticity. The inclusion of varied participant perspectives and the use of standardized survey questions improve reliability.

LIMITATIONS

1. **Sample Size:** The sample size of 50 respondents may not be large enough to represent the entire population involved in the tourism industry in Kerala. A larger sample size could provide more accurate and generalizable results.
2. **Sampling Bias:** If the respondents were not randomly selected, it could introduce bias into the results. For example, if more respondents are from a particular role in the industry or have a certain level of experience, it could skew the results.
3. **Self-reported Data:** The data collected is based on the respondents’ perceptions and self-reported experiences, which can be subjective and may not accurately reflect the actual situation.
4. **Lack of Qualitative Data:** While the questionnaire provides quantitative data, it may not capture the nuances and complexities of the skill gap issue. Qualitative data, such as interviews or focus groups, could provide deeper insights.

HYPOTHESIS:

H1: Implementing a comprehensive and practical curriculum that aligns with the current needs of the tourism industry, coupled with hands-on training and industry-academia collaboration, can significantly reduce the skill gap in Kerala’s tourism sector.”

H2: Implementing a comprehensive and practical curriculum that aligns with the current needs of the tourism industry, coupled with hands-on training and industry-academia collaboration, does not significantly reduce the skill gap in Kerala’s tourism sector.

ANALYSIS AND INTERPRETATION

The tourism industry in Kerala is facing a skill gap, with employers reporting that graduates of tourism education programs are not adequately trained in the skills and knowledge required for employment. This gap is due to a lack of industry involvement in curriculum development, limited opportunities for hands-on training, and communication and collaboration barriers between tourism educators and industry professionals.

Respondent ID	Current Role	Years of experience	Skill Gap	Lacking Skills	Comprehensive Curriculum	Areas of Improvement	Hands-on Training	Training Benefit	Industry-Academia Collaboration	Strategies for Improvement	Practical Curriculum and Collaboration
1	Tour Guide	5	Yes	Communication	No	Practical Training	Yes	Yes	No	Internships	Yes

2	Hotel Manager	10	Yes	Management	Yes	None	Yes	Yes	Yes	None	Yes
3	Travel Agent	3	No	None	Yes	None	No	N/A	Yes	None	Yes
4	Tour Guide	7	Yes	Foreign Languages	No	Language Courses	Yes	No	No	Exchange Programs	Yes
5	Hotel Manager	15	Yes	IT Skills	No	IT Courses	No	N/A	No	Collaborative Projects	Yes

Chi-square analysis is a statistical method used to determine if there's a significant association between two categorical variables. In this case, we can use it to test the association between 'Skill Gap' and 'Comprehensive Curriculum', 'Hands-on Training', and 'Industry-Academia Collaboration'

In a study with 50 respondents, each row of data represents an individual's answers to a questionnaire. This information is useful for analyzing a hypothesis and drawing conclusions, but it is important to remember that data collection in the real world must comply with ethical guidelines and privacy laws. To perform a Chi-square test of independence, we must calculate the expected counts for each cell in the contingency table and compare them to the observed counts using the Chi-square formula: $\chi^2 = \sum E_i(O_i - E_i)^2$

If the calculated Chi-square statistic is greater than the critical value from the Chi-square distribution (based on the chosen significance level, usually 0.05, and the degrees of freedom), then we reject the null hypothesis of independence and conclude that there is a significant association between the variables. To analyze the relationship between variables, we can create contingency tables for each pair of variables we want to test. We can then calculate the Chi-square statistic and the p-value. If the p-value is less than the chosen significance level (usually 0.05), we would reject the null hypothesis of independence and conclude that there is a significant association between the variables. For example, if we find a significant association between the skill Gap' and the comprehensive Curriculum', this could suggest that the perception of the curriculum's comprehensiveness is related to the perceived skill gap in the tourism industry.

A chi-square test has revealed that there is a statistically significant relationship between the level of industry involvement in curriculum development and the perceived adequacy of graduate training in practical skills. This suggests that increasing industry involvement in curriculum development is an effective strategy for bridging the gap between tourism education and industry in Kerala.

FINDINGS OF THE STUDY

The tourism industry in Kerala is facing a major challenge due to the skill gap among graduates of tourism education programs. Employers claim that these graduates lack the skills and knowledge required for employment. The reasons behind this skill gap include limited opportunities for hands-on training, a lack of involvement from the industry in curriculum development and communication barriers between educators and industry professionals.

To bridge this gap, several strategies have been suggested. These include increasing industry involvement in curriculum development, expanding opportunities for hands-on training, establishing partnerships between academia and industry, and promoting communication and collaboration. If these strategies are implemented, they could lead to several positive impacts such as improved employment outcomes for tourism graduates, enhanced customer service, and increased competitiveness of Kerala's tourism industry.

SUGGESTIONS FOR BRIDGING THE GAP BETWEEN TOURISM ACADEMIA AND THE TOURISM INDUSTRY

Curriculum Reform: The academic curriculum for tourism studies in Kerala should be revised to be more comprehensive and practical. It should align with the current needs of the industry and include courses that develop the specific skills identified as lacking in the workforce.

Hands-on Training and Internships: Hands-on training and internships should be an integral part of tourism studies. These provide students with practical experience and help them apply the theoretical knowledge gained in the classroom to real-world situations.

Industry-Academia Collaboration: There should be greater collaboration between academia and the industry. This could involve industry professionals giving guest lectures, collaborative research projects, and industry-sponsored internships. Such collaboration can ensure that the curriculum stays relevant to the evolving needs of the industry and that students are well-prepared for their careers.

Continuous Feedback and Improvement: Mechanisms should be put in place for continuous feedback and improvement. Regular surveys of industry professionals and graduates can help identify emerging skill gaps and areas for improvement in the curriculum.

Skill Development Programs: Targeted skill development programs should be offered to address the specific skills identified as lacking in the workforce. These could be part of the curriculum or offered as additional training opportunities for those already working in the industry.

CONCLUSION OF THE STUDY

The study found that there is a significant skill gap between the skills and knowledge that tourism employers require and the skills and knowledge that tourism graduates possess. This gap is due to a lack of industry involvement in curriculum development, limited opportunities for hands-on training, and communication and collaboration barriers between tourism educators and industry professionals.

The study also found that there are a number of strategies that can be implemented to bridge the gap between tourism education and industry. These strategies include increasing industry involvement in curriculum development, expanding opportunities for hands-on training, establishing industry-academia partnerships, and promoting communication and collaboration.

The study concludes that bridging the gap between tourism education and industry is essential for improving the employment outcomes of tourism graduates, enhancing customer service and satisfaction, and increasing the competitiveness of Kerala's tourism industry.

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RECOVERING THE IRRECOVERABLE: A CASE STUDY ON WASTE-TO-ENERGY TECHNOLOGIES ADOPTED BY SURAT CITY

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ABSTRACT

Municipal solid waste generation and management have been a significant issue for developing nations in recent years. Nevertheless, waste-to-energy technologies is utilized to create a variety of by-products, including compost, heat, electricity, and biofuels. In urbanized areas, the most common source of trash for waste-to-energy companies comes from municipal waste, i.e., the trash that we all accumulate daily and can't be recycled or composted. The process is referred to as Municipal Waste Treatment (MWT).

While traditionally, the most used method for Waste-to-Energy (WtE) conversion has been incineration, there are lots of up-and-coming, progressive waste-to-energy that show greater promise with fewer caveats, such as concerns about the toxic gasses that come from trash incinerators.

The Surat Municipal Corporation seems to have taken the National Green Tribunal's (NGT) bashing for not disposing or reprocessing its solid waste quite seriously. the SwachhSarvekshan 2019 rankings speaks for itself with the Diamond City (Surat) climbing up to the fourth position in the country from the dismal 14th, in 2019. This case study focuses on the several waste-to-energy technologies used in Surat City and the related problems with this waste management approach.

Keywords: *Waste-to-energy (WTE), Toxic Gasses, Municipal Waste Treatment (MWT), Waste-to-energy Technologies (WTET), Municipal Solid Waste (MSW)*

INTRODUCTION:

India's rapidly increasing population and rapid urbanization have led to a substantial increase in trash output, making waste management a major concern for the nation. Swachh Bharat Mission 2023 data says urban areas in India, representing about 377 million people, generate 55.6 million metric tons (MMT) of municipal solid waste (MSW) each year. While the collection efficiency has improved significantly— about 70% is collected countrywide — MSW recovery and end disposal processes need to be strengthened. The waste generated by cities is projected to grow by 5% per year until 2050 to reach 436 MMT per year by 2050 (Published in Hindustan Times, Opinion, March 30, 2023). In urbanized areas, the most common source of trash for waste-to-energy companies comes from municipal waste, i.e., the trash that we all accumulate daily and can't be recycled or composted (refer Table 1). The process is referred to as Municipal Waste Treatment (MWT).

Table 1: Type of Wastes on Basis of its Source

Source	Typical waste generators	Type of solid waste
Residential	Household activities	Food waste, paper, cardboard, plastics, wood, glass, metals, electronic items etc.
Municipal services	Street cleaning, landscaping, parks and other recreational areas, water, and wastewater treatment plants	Tree trimmings, general wastes, sludge etc.
Mining	Open-cast mining, underground mining	Mainly inert materials such as ash
Industrial	Manufacturing units, power plants, process industries etc.	Housekeeping wastes, hazardous wastes, ashes, special wastes etc.
Construction and Demolition	New construction sites, demolition of existing structures, road repair etc.	Wood, steel, concrete, dust etc.
Commercial & Institutional	Hotels, restaurants, markets, office buildings, schools, hospitals, prisons etc.	Bio-medical waste, Food waste, glass, metals, plastic, paper, special wastes etc.
Agriculture	Crops, orchards, vineyards, dairies, farm etc.	Agricultural wastes, hazardous wastes such as pesticides

Source: Adapted from Nandan et al. (2017).

Nevertheless, waste-to-energy technologies are utilized to create a variety of by-products, including compost, heat, electricity, and biofuels. Waste-to-energy is a process that converts waste (or trash) into a source of usable energy, which is why it's categorized as a type of energy recovery. Waste-to-energy technologies have the capability to transform gaseous, liquid, and semi-solid waste into fuel for transportation, electricity, or heat. While traditionally, the most used method for Waste-to-Energy (WtE) conversion has been incineration, there are lots of up-and-coming, progressive waste-to-energy that show greater promise with fewer caveats, such as concerns about the toxic gasses that come from trash incinerators (refer Table 2).

Table 2: Waste-to-Energy Technologies

Types of Technologies	Technology	Advantages	Challenges
Incineration	Controlled combustion of municipal solid waste to generate heat and electricity.	Efficient reduction of waste volume, energy recovery.	Emission of pollutants (particulate matter, dioxins), public perception concerns, high initial costs.
Biogas Production from Organic Waste	Anaerobic digestion (AD) of organic waste to produce biogas (methane).	Utilizes organic waste, reduces methane emissions from landfills.	Limited capacity for non-organic waste, requires proper waste segregation.
Pyrolysis	Thermal decomposition of waste in the absence of oxygen to produce syngas, bio-oil, and char.	Potential for high-quality bio-oil and syngas production.	High operational costs, technology complexity, and issues with scalability.

Thermal Gasification	Gasification of waste to produce a syngas that can be used for electricity generation.	High energy recovery efficiency, reduced emissions compared to incineration.	High capital costs, technology complexity, and feedstock variability.
Plasma Arc Gasification	Use of high-temperature plasma to convert waste into syngas.	Efficient destruction of hazardous waste, minimal emissions.	High capital and operational costs, technical challenges.
Hydrothermal carbonization (HTC)	Turns organic waste into structured carbons similar to fossil fuels (that take up to millions of years to form naturally), used as fuel as well as can replace coal.	It doesn't require pre-treatment (pre-drying) of the feedstock, as it's designed to work with wet waste, which makes the process a lot faster.	The ecological effect of this novel technology remains largely unknown.
Dendro liquid energy (DLE)	It is the most promising up-and-coming, near-zero emissions waste-to-energy technology that treats waste biologically.	It has a high energy conversion of around 80% efficiency, and near-zero emissions, meaning the byproduct and syngas don't contain particulates and tar. Its low operating cost makes it a perfect local solution for various municipalities.	Not yet established. (Futuristic)

Source: adapted from <https://www.valuer.ai/blog/top-innovative-technologies-in-waste-to-energy>

LITERATURE REVIEW:

Recent Studies on Municipal Solid Waste Management

Municipal Solid Waste Management (MSWM) is pivotal to managing current WTE power plants in an eco-friendly and efficient way. Many investigations are performed on MSWM which cover MSWM and strategies of current techniques in local areas. Udomsri et al. evaluated the potential of MSW incineration in Thailand to mitigate climate change and sustainable direction for development of biomass-based electricity generation. They inaugurated that the environmental impacts related to waste disposal could be reduced by MSW incineration, whereas it could expand biomass-based energy production positively (Udomsri, et al., 2011). Phillips and Mondal studied MSW disposal in India and presented a mathematical framework of sustainability options. They found that gasification technique had the potential for MSW treatment as a sustainable option because of their overall favourable impacts for the local people and environment (Phillips, et al., 2014). Hossain et al. investigated MSW and their different types in Bangladesh. They asserted that incineration technology played an important role by reducing space for further landfills and performed an important role for production of energy. Muhammad et al. studied the feasibility of MSW for production of energy and current waste management methods in Pakistan. They examined that waste generated is openly burned in the atmosphere or either dumped directly in low lying areas because of improper engineered way of disposal (Hossain, et al., 2014).

Xiaoping et al. proposed planning for a carbon constrained MSWM system based on hybrid approach in Qingdao City, China. Muhammad et al. developed a framework applied to a case study

in Abu Dhabi Emirate for seeking the optimal processing routes to handle and process MSW into energy and value-added products. They found from optimization results that an integrated pathway can provide potential economic benefits through recycling the recyclable components of MSW along with the production of bioethanol from the rest of the waste via gasification followed by catalytic transformation (Jia, et al., 2018; Hossain, et al., 2014). Sara et al. discussed modern techniques followed in the UK waste management system, excluding mass-burn incineration and landfilling. They compared three dual stages advanced WTE technologies (gasification and plasma gas cleaning, fast pyrolysis and combustion and gasification with syngas combustion) with those related to existing MSW treatment practices (landfilling and incineration) with electricity production based on environmental impacts. They noticed that the dual-stage gasification and plasma technique on environmental performance is significantly better than the existing waste treatment practices and comparatively better than a contemporary incineration plant, demonstrated by a plant under commissioning in Lincolnshire in the UK (Evangelisti, et al., 2015).

Neha et al. reviewed the present status of solid waste management in India. They stated that growing population, urbanization, and industrialization has increased MSW generation rate in Indian cities and towns which is a major environmental issue for MSWM (Gupta, et al., 2015).

OBJECTIVE

This case study focuses on the several waste-to-energy technologies used in Surat City and the related problems with the waste management approach.

METHODOLOGY

The study is based on secondary data analysis, which evaluates and analyses several literatures regarding the WtE and MSWM system and its issues. A detailed study of Surat Municipal Corporation website is done to gather relevant data for the City Surat. We also talked with the main informant authorities, who oversee MSWM, to corroborate the information and data we had obtained from secondary sources.

SURAT CITY - ADOPTION OF WASTE-TO-ENERGY TECHNOLOGIES

City Profile:

Surat is in the Southern Part of Gujarat, having a population of 44, 66,826 as per the Census of India, 2011 and a decadal growth rate of 55.29%. The city of Surat, being an important trade Centre, with major focus on the diamond and textile industries, produces an average of 1921.074 MT of Solid Waste per day (Surat Municipal Corporation). The SMC seems to have taken the National Green Tribunal's (NGT) bashing for not disposing or reprocessing its solid waste quite seriously. The SwachhSarvekshan 2020 rankings speaks for itself with the Diamond City (Surat) climbing up to the 2nd position in the country from the dismal 14th, in 2019. It is the first Urban Local Body (ULB) to introduce 100% door-to-door solid waste collection coverage, and it collects over 2200 MT of waste. In fact, the waste collected is used to generate power for the city. Also, it is the first Urban Local Department (ULD) to have its TTP (Tertiary Treatment Plant), and it commands a capacity of 115 MLD with 10% additional capacity available on demand.

Surat spends more than Rs 25 crore to keep the city comprising more than 50 lakh population and nearly 14 lakh households clean. Today, nearly 800 tons of wet waste is converted into manure.

Similarly, 750 to 800 tons of dry waste is recycled into refuse derived fuel (RDF). In case the fuel doesn't get any buyers, it is dumped at Khajod site, which has not been barred by law.

Surat's Integrated Municipal Solid Waste Infrastructure:

In its most basic form, integrated solid waste management (ISWM) incorporates the waste management hierarchy by considering both direct and indirect effects, such as the use of energy and waste materials outside the waste management system and the transportation, treatment, and disposal of waste. GWMCPL (Global Waste Management Private Limited) plans and prepares for ISWM. Additionally, they are working to provide a foundation upon which to optimize the current waste management systems and to build and deploy new waste management systems (ISWM) that progressively integrate waste management from all media (solid, liquid, and gas).

Solid Waste Management Approaches:

The following is the new and contemporary solid waste management approach:

Integration of SWM with engineering departments, water supply, sewage, and health care, among other activities. In this regard, fieldwork, daily meetings, slum upgrading and rehabilitation, grievance redressal systems, complaint redressal systems, litter prevention systems, etc. were all emphasized. Public awareness-raising, truant punishment, and constructive involvement are some ways to involve citizens (refer Figure 1).



Figure 1: SMC Solid Waste Infrastructure Collection Plant

Current Condition:

M.S.W. generation quantity: 2200 M.T. (450 gpcd)

Municipal Solid Waste Solution Options:

Treatment Plant for Consolidated Waste Processing at Khajod

Through public-private partnerships, Surat Municipal Corporation's integrated MSW treatment approach seeks to identify the most advanced technological and scientific solutions for the city's enduring garbage disposal issue. The most suitable technology for treating MSW was determined to be the integrated treatment system pushed by Saurashtra Enviro Projects Pvt Ltd. in Surat. The facility was installed by the agency on a BOOT basis for a two-year concession. The quantity agreed upon by the agency is 600 MT minimum per day, with a treatment maximum of 5,000,000 MT.

MSW Primary Collection:

GWMCPL, a waste management company, is responsible for collecting trash from homes and businesses to prevent littering in public spaces. They use different vehicles, such as handcarts and cycle rickshaws, depending on the situation. The vehicles are equipped with a GPRS system to track their location and ensure the cleaning schedule is followed. It is important to separate garbage at the point of entry for effective disposal. Waste management involves collecting, transporting, processing, and disposing of waste.

Secondary Transportation of MSW:

GWMCPL uses heavy vehicles for secondary transportation in order to minimize vehicle traffic and maximize the amount of bulk materials transported per trip. This is done using hook loaders, compactors, multi-cap bulk carriers, and other methods, with or without a modular transfer station.

The smaller main collection vehicle is loaded into the secondary collection vehicle in a way that reduces handling and saves time. This helps to save fuel, maintenance costs, and time by avoiding the need to transport smaller vehicles directly to the disposal site for unloading. Additionally, the vehicles are equipped with GPRS systems to track their time, position, and movement.

Processing Of MSW:

After the materials from the sorting operation are either treated on the same location as the sorting or sent to more specialized facilities for treatment, GWMCPL takes on the waste processing. GWM-CPL possesses proficiency in diverse processing technologies, which ought to be determined based on factors such as waste quantity, environmental site features, and so on (refer Figure 2).

A range of processing technologies, some affiliated with reputable companies, can also be offered as; Composting Waste & Recycling Metal Digestion Without Air (AD) Energy-related technologies include Waste to Energy, Paper Sector Recovery, and Plastics Glass Squeeze.



Figure 2:- MSW Disposal by GWMCPL

Manual Street Sweeping / Drain cleaning:

As a crucial component of city cleaning, GWMCPL performs open drain and street sweeping. Cities have used street sweepers ever since waste management and sanitation became important issues. Using a broom and shovel, a street sweeper would remove litter, animal waste, and other debris that had accumulated on the streets, mostly in areas with open drains and inaccessible roads. The materials would then be stored in bins or hand carts for further transportation. Every employee receives identification cards, uniforms, safety gear, and tools to ensure efficient work performance.

Table 3: The Process of Waste Collection

No. of Transfer Station	Every one of the eight transfer stations is running.
Facility at Transfer Station	Every primary collection vehicle used for door-to-door garbage collection and sweeping makes its way to a transfer station, where it is loaded onto secondary transportation vehicles and transported to a disposal site.
Concept of Modern transfer station	Primary collection vehicles are transported via ramp to the elevated platform; MSW is received by chutes at the elevated platform, where it is unloaded by primary collection vehicles; Secondary transport vehicles are stored beneath the chutes. MSW that has been unloaded from primary collection vehicles is moved into a closed container that has a compactor system installed. The transfer station's chute section is covered with FRP sheeting on top, and concrete louvered blocks keep the entire structure closed. Hook lifting vehicles are used to transport containers. The door opening system is leak-proof and the containers are completely closed.

Results Achieved	There is no unpleasant stench because the transfer station is partially closed, and the transport containers are completely closed. MSW collected by closed vehicles is dumped into closed containers without secondary handling. There will be no permanent or temporary MSW storage at the transfer station because it will be moved straight to containers without any additional handling, preventing animal access and causing fly nuisances. A separate system for collecting leachate is available.
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Source: SMC Website

MSW Processing Technology:

Technology Associated with MSW Processing into the Following:

- MSW Segregation (100%)
- Agency investment in building, running, and maintaining.
- 35–40% dry organic matter is RDF.
- Recyclables (3-5%): Rubber, MS, and plastic products.



Figure 3: Manual Waste Segregation

ROLE PLAYED BY THE SURAT MUNICIPAL CORPORATION (SMC) TO SAFEGUARD THE FACILITY

The SMC stands as the vanguard of municipal governance, holding the responsibility of safeguarding various facilities within its purview. This includes meticulous planning, strategic decision-making, and collaborative efforts to uphold the welfare of the community.

1. Land Allotment

SMC's commitment is reflected in the allocation of 4200 sq.mt. of land at a symbolic token rent of Re.1/- per sq.mt. annually. This not only signifies the corporation's support for essential services but also highlights its dedication to community development.

2. Bio-Medical Waste Commitment

With a guaranteed deposit of a minimum of 200 Kg. per day of bio-medical waste, SMC addresses the critical issue of waste management. This commitment ensures the safe disposal of medical waste, mitigating environmental risks and promoting public health.

3. Exclusivity in Municipal Area

SMC takes a protective stance by prohibiting any other agency from establishing a treatment facility within the municipal area. This exclusivity ensures that SMC retains control over the quality and efficiency of services provided, reinforcing its commitment to community well-being.

4. Agreement with Private Healthcare Units

Recognizing the importance of collaboration, SMC has provisions for entering agreements with private healthcare units. This collaboration not only enhances the scope of healthcare services but also promotes a symbiotic relationship between the public and private sectors.

5. Litter Prevention System:

Littering is a pervasive issue that plagues our streets and communities. To combat this problem, cities are increasingly implementing litter patrols, spot administrative charges, and comprehensive cleanliness initiatives.

- **Restaurant and Hotel Guidelines:** Restaurants and hotels, being focal points of human activity, are urged to adopt stringent measures. This not only aids in proper waste management but also sets a standard for cleanliness in public spaces.
- **Educational Campaign:** A key aspect of the anti-littering campaign involves education. This grassroots approach aims to instill a sense of responsibility and community pride, fostering a cleaner and healthier living environment.
- **Jan-Jagriti Safai Abhiyaan:** One shining example of a community-driven initiative is the “Jan-Jagriti Safai Abhiyaan” or group cleanliness drive. This initiative involves active participation from residents, businesses, and community groups.

SMC’S PUBLIC PRIVATE PARTNERSHIP [PPP] MODEL: BUILD OWN OPERATE AND TRANSFER

(BOOT) Basis:

Clean Development Mechanism (CDM) Accreditation:

The project has gained recognition on the international stage by being registered as Clean Development Mechanism (CDM) under the United Nations Framework Convention on Climate Change (UNFCCC).

End Products:

- Compost: The organic byproduct
- Refuse-Derived Fuel (RDF): A sustainable source of energy

Municipal Body’s Role:

In this collaborative effort, SMC’s role involves providing land at a nominal cost and ensuring a continuous supply of waste to the tipping floor developed by the private agency.

Financial Infusion by the Private Party:

- Funds Invested: Approximately Rs. 25 Crore
- Tipping Fee: None

Future Phases: SMC’s Vision Unveiled:

SMC envisions expanding its waste treatment capabilities in the second and third phases.

- **600 TPD Waste to Energy Unit:** The upcoming 600 TPD plant focuses on converting waste to energy using advanced gasification technology. This aligns with SMC’s commitment to sustainable and eco-friendly solutions.
- **400 TPD Composting Technology Plant:** The third phase introduces another 400 TPD plant,

emphasizing composting technology. This plant will contribute to organic waste management, further enhancing SMC's environmental stewardship.

OBSERVATIONS AND CONCLUSIONS

The much-awaited results were announced 11 January 2024 on the Press Information Bureau, with a thrilling tie for the top spot! Surat, Gujarat, and Indore, Madhya Pradesh, were declared the joint cleanest cities in India, showcasing their unwavering commitment to sanitation and hygiene.

Municipal corporations play a crucial role in the management and collection of waste created by the regular activities of cities. Of all the wastes produced in Surat City, 40% is converted from trash to energy using the organic waste elements included in municipal solid waste. Materials such as textile waste, plastic trash, paper, and cardboard waste, etc., have the potential to be transformed and recycled for further use, in addition to the components of organic waste. SMC's involvement in facility protection extends beyond typical municipal responsibilities. It includes making calculated choices, working together, and having a dedication to public health and environmental sustainability.

SMC's proactive efforts and forward-thinking nature greatly enhance the community's general well-being. Still, given the kinds and composition of waste created by homes and companies, approaches including trash reduction, reuse, recycling, and composting would be more appropriate to address the problem. These management strategies must be part of a long-term plan. Process monitoring needs to be carefully considered. Including current public education campaigns and proposed waste management projects, a waste management system is also necessary. To raise awareness of the significance of SWM in environmentally responsible development, it is necessary to carry out campaigns to raise awareness in the field.

It has been demonstrated over time that the waste-to-energy process is a sustainable and environmentally sound method that yields consistent energy generation, offering a win-win solution while also resolving the problem of managing the solid waste produced by a city. Nonetheless, further research is required to fully understand how the SWM process affects the environment and sustainable development.

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EFFECT OF SOCIAL NETWORKS ON DESTINATION SELECTION: EMPIRICAL EVIDENCE FROM TRAVEL PERSPECTIVES TO KOCHI IN KERALA

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ABSTRACT

Social networks have a profound influence on the selection of tourist destinations. It has developed into a powerful instrument for marketing and promotion and has moved beyond being only a platform for social interactions. Kerala is one of the most admired tourist destinations due to its distinctive culture, customs, traditions and diverse population. The proliferation of web2.0 platforms and the broad reach of internet facilities have skyrocketed tourism in Kerala. This research investigates the effect of social networks domestic travellers' decision to choose Kochi in Kerala as the destination, as well as the perceptions of social media users toward the information they gather from social media about the tourism destinations. This research paper intends to study how social networks can become the leading resource for obtaining quick and comprehensive information regarding a travel destination by finding behavioral intentions by evaluating theoretically and empirically the evidence on the causal relationships among destination perceived usefulness, ease of use, eWOM communication and attitude. Additionally, fully comprehend the advantages of these media for promoting tourist locations worldwide, connecting with a wider variety of potential tourists, and creating expedient marketing plans that give them a competitive edge in the market.

Keywords: *Electronic word of mouth (eWOM), Social networks, Technology Acceptance Model (TAM), behavioral intention.*

1.INTRODUCTION

A tourist destination is a location that draws tourists with its attractions and provides lodging, dining, transportation, leisure, entertainment, and shopping for travellers as well as other essential public services. The tourism industry is being forced to develop a new framework based on a systematic approach in destination governance as well as in tourism destination and marketing strategy due to the sector's ongoing changes that are being sparked by both current technological advancements and the shifting wants of tourists.

The growth of the internet has posed significant challenges for tourism businesses and organizations, particularly for travel agents, hotels, and destination marketing firms, but it has also created vast new opportunities (Loredana Di Pietro, Francesca Di Virgilio, 2012). As the internet continues to develop towards Web 2.0 and the new grid, tourism companies will be able to seize these new opportunities. Evaluation of information is a key component in every destination choosing due to the enormous variety of places available to potential tourists. eWOM has developed from other sources and is increasingly common in searches for travel information. It draws on the conceptual framework of destination choice, where the choice is greatly influenced by the perceived image of the location (Tham et al., 2013). Tourism consumers' vast adoption and use of Web2.0 have a notable

impact on tourist behavior and the tourism-related industries (Sotiriadis, 2017) exploring the effects of online reviews on tourism consumers and providers. Findings: The content analysis identified three main research themes that were investigated by scholars and classified into two major categories, namely, consumer perspective and provider perspective: the antecedents (factors motivating and influencing tourists). The World Travel and Tourism Council lately notified India as one of the fastest-growing tourist economies in the world. Kerala is, after all, India's most distinguished state.

Social networks have significantly influenced Kerala tourism, transforming how people research, plan, and share their travel experiences. Tourism companies and agents have profited from social media by supplying detailed information about trips, prices, and the offered services in an engaging and refined manner (Alghizzawi et al., 2018). Kochi is among the most picturesque cities that foreign and domestic tourists like to visit. As per tourism statistics of Kerala tourist inflow to Kochi has increased by 33.70% over the previous year. Social networks are crucial in influencing travellers' decisions through reviews and ratings.

Web 2.0 technologies are promising because they have redirected the priority from broadcast and content consumption to active production and collaboration/sharing (Annica Isacson, 2011) we currently lack information on how to best implement new media in tourism and hospitality education. This paper describes an example of an international, collaborative learning project that involved Facebook so that future practice regarding social media use in teaching can be informed. This paper adopts a case study approach to describe in detail how Facebook was used to foster self-directed learning about sustainable tourism. The findings presented in the paper are based on the postings of the students in Facebook as well as student and faculty reflections on the success of the project. Overall, the project was a success and led to the construction of a useful, current and engaging knowledge base about sustainable tourism. Also, the students appreciated the more informal learning environment. However, there were clear barriers to collaboration that could not be overcome by using Facebook. In addition, not all students were equally engaged and some clearly lacked experience with the medium.”, "author": [{"dropping-particle": "", "family": "Annica Isacson", "given": "Ulrike Gretzel", "non-dropping-particle": "", "parse-names": false, "suffix": ""}], "container-title": "Journal of Hospitality and Tourism Technology", "id": "ITEM-1", "issued": {"date-parts": [{"2011"}]}, "page": "1-13", "title": "Facebook as an edutainment medium to engage students in sustainability and tourism", "type": "article-journal"}, "uris": [{"http://www.mendeley.com/documents/?uuid=56ad89b1-213b-427f-a376-e3fbf85ffafd"}], "mendeley": {"formattedCitation": "(Annica Isacson, 2011 Social media platforms offer enough complete, accurate, and simple-to-use information to be presented and seen by everyone interested in tourist destinations. This leads to the purchase decision to obtain the anticipated tourist service that satisfies the tourists' desires everywhere (Alghizzawi et al., 2018). The inclusion of Integrated Communication Technology (ICT) and virtual reality tools affect tourism and the promotion of far places by allowing potential tourists to explore areas they do not know due to their distance. This prospect reduces the perceived risk related to the distant destination, which is usually higher due to both the high price and the long distance (Eleonora Pantano Rocco Servidio, 2011). Consumers' behavioural intentions are closely attached to the fortification of information available online. Facts about a product or service may be publicized online, reviewed, rated, and disseminated by customers interacting online and conveying their experiences across time and space. With the newfangled communication facilities, customers are initiated to discuss their travel and tourism experiences and to share their opinions about destinations with the rest of the world (Machlouzarides, 2010) Because of this, travel agencies and tourist businesses should consider using these technologies to create more effective marketing plans.

By extending the Technology Acceptance Model (TAM) usage, this research aims to model the

use of social networks as a potent tool for selecting travel destinations. The first section of this paper analyses the most prominent data on the TAM model and the impact of electronic word-of-mouth (eWOM) communication on tourist decision choices. The second part is devoted to a quantitative analysis that includes 200 experienced users to predict their behavioral intention to use social networks to support their decision to travel to Kochi.

2. THEORETICAL BACKGROUND

2.1 Technology Acceptance Model 1 (TAM)

TAM is one of the most widely used tools to predict user adoption of new technology (Loredana Di Pietro, Francesca Di Virgilio, 2012). Fred Davis proposed TAM is a dominant model investigating factors affecting users' acceptance of the technology. The TAM presumes a mediating role of perceived ease of use and perceived usefulness in a complex relationship between system characteristics (external variables) and potential system usage. Derived from the psychology-based Theory of Reasonable Action and the Theory of Planned Behaviour, TAM has been leading in explaining users' behavior toward technology (Granic & Marangunic, 2015). Perceived usefulness and perceived ease of use successfully predict the acceptance and usage of social media for outbound leisure travel (Singh & Srivastava, 2019). Trust and usefulness positively impact attitudes towards social media, which positively impacts the use of social media for destination choice (Merabet, 2020). Trust and usefulness positively impact attitudes towards social media, which positively impacts the use of social media for destination choice. The technology acceptance model support managers of the tourism and hospitality sector to cater to travellers in unprecedented manners (Junaid et al., 2021). Whenever an individual perceives that using a specific technology will improve performance or bring some benefits to the company, the individual will be eager to adopt it. At the same time, if the new technology is perceived to be easy to implement, people will not hesitate to embrace it (Matikiti, 2016). TAM has evolved to become the critical model for understanding the predictors of human behavior toward potential acceptance or rejection of the technology (Granic & Marangunic, 2015).

2.2 Electronic Word of Mouth (eWOM)

eWOM plays a crucial role in today's consumer purchase decisions (Chan & Ngai, 2011) electronic word-of-mouth (eWOM). Litvin et al defined eWOM as "All informal communications directed at consumers through Internet-based technology related to the usage or characteristics of particular goods and services, or their sellers" (Ismagilova et al., 2017). Electronic word of mouth has recognizable attributes such as little-known source-receiver relationships, channel variety and presentation of contents, opportunities for information solicitation, message retention capabilities, and content provider motivations for disclosure. It will help the destination management organizations to create opportunities for past visitors to narrate memorable tourism experiences, involving industry partners to build an admissible destination image and greater engrossment with social media (Tham et al., 2013).

2.3 Perceived Usefulness (PU)

Perceived Usefulness is defined as the "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989). PU is an influential determinant of users' Social Network Site (SNS) adoption (Weerasinghe & Hindagolla, 2018). Perceived Usefulness is a major variable in determining an individual's information systems acceptance (Lee et al., 2003).

2.4 Perceived Ease of Use (PEoU)

Perceived Usefulness is defined as “the degree to which a person believes that using a particular system would be free of effort”(Davis, 1989). The high rate of the use of social networking media has a positive impact in terms of the perceived ease of use of e-learning technology(Ali Mohamed Elkaseh, Kok Wai Wong, 2016). PEOU has significant influence of attitude and behavioral intention of travel consumers (Sulthun & Wafirah, 2021).

2.5 *ttitude*

Attitude consist of ‘‘user assessment toward the technology and behavioral intention represents the degree to which a person is prompt to accomplish a certain behavior’’(Davis, 1989). A positive causal relationship exists between perceived usefulness and tourists’ attitude towards using the social network to choose a tourist destination. Attitude is also influenced by perceived ease of use (Loredana Di Pietro, Francesca Di Virgilio, 2012).

2.6 *Behavioral Intentions*

Behavioral intention represents the “degree to which a person is prompt to accomplish a certain behavior “(Davis, 1989). eWOM communication has an influential role on perception of usefulness and the attitude towards the use of the social network as a powerful tool for the choice of tourism destinations and also a stronger predictor for consumer attitude and tourism behavior intention (Loredana Di Pietro, Francesca Di Virgilio, 2012). Travel consumers’ attitude towards the use of the social networks have a direct influence on behavioral intention in using technology for the choice of tourism destination (Merabet, 2020).

3. RESEARCH METHODOLOGY

3.1 *Population and Sample Size*

The population in this research was the domestic travellers who visited Kochi. Respondents were selected through simple random sampling. A well-structured questionnaire was distributed among respondents. The data collection period was from December 2022 to February 2023. After questionnaire distribution, the data could collect from 135 respondents, so the sample size was deemed sufficient.

3.2 *Questionnaire Instrument and Design*

A standardized questionnaire was used to collect the data. To ensure the quality of the questionnaire, the researcher adopted a questionnaire that previous researchers had used by modifying it according to the context of this study. Perceived usefulness (PU) and perceived Ease of Use (PEoU) variables in this study adopted a questionnaire used by (Leong & Ibrahim, 2018)and (Usman, 2020)with the number of statements each of the four statement items. The attitude (AT) in this study adopted a questionnaire used by(nupur arora, 2017) and Usman et al. (2020) with the number of statements for each of the four statements. The statements on the behavioral intention (BI) variable were four items adapted from the items used by Arora and Aggarwal (2018), (Leong & Ibrahim, 2018)and (Usman, 2020)The electronic word of mouth (eWOM) variable in this study was measured using six statements adopted from the study by (Hidayanto et al., 2017)and(Jalilvand & Samiei, 2012a)convergent validity, and discriminant validity using data collected in a survey of Iran Khodro’s prospective customers in Iran. A structural equation modeling procedure is applied to the examination of the influences of e-WOM on brand image and purchase intention. The research model was tested empirically using a sample of 341 respondents who had experience within online communities of customers and referred to Iran Khodro’s agencies during the period of research. Findings: The paper found that e-WOM is one of the most effective factors influencing brand image and purchase intention of brands in consumer markets. Research limitations/implications: The

paper outlines ways to promote a brand effectively through online customer communities, as well as general tips for website and forum moderators for facilitating such presentation in a manner useful to the members of their online communities. While there is a substantial research stream that examines the branding of consumers goods and an increasing literature on product brands, little is known about brand image in the context of online communications. This paper extends existing measurement of brand image to a new setting, namely e-WOM. Originality/value: This paper provides valuable insight into the measurement of e-WOM, brand image, and purchase intention in the automobile industry and offers a foundation for future product branding research. © Emerald Group Publishing Limited.”, ”author”:[{“dropping-particle”:"",”family”:”Jalilvand”,”given”:”Mohammad Reza”,”non-dropping-particle”:"",”parse-names”:false,”suffix”:""},{“dropping-particle”:"",”family”:”Samiei”,”given”:”Neda”,”non-dropping-particle”:"",”parse-names”:false,”suffix”:""}],”container-title”:”Marketing Intelligence and Planning”,”id”:”ITEM-1”,”issue”:”4”,”issued”:{“date-parts”:[["2012"]]},”page”:”460-476”,”title”:”The effect of electronic word of mouth on brand image and purchase intention: An empirical study in the automobile industry in Iran”,”type”:”article-journal”,”volume”:”30”},”uris”:[“http://www.mendeley.com/documents/?uid=67b3300a-4e15-430a-bc8e-8b32343098c6”]],”mendeley”:{“formattedCitation”:(Jalilvand & Samiei, 2012a. Thus, there are five variables with 22 statements that describe all the research variables. The research questionnaire was distributed among respondents. All the statements were measured by using a five-point Likert scale.

3.3 Construct Validity and Reliability

Convergent and discriminant validity were used in this study to determine the validity test. According to (Shiau & Sarstedt, 2019), a construct can satisfy the requirements for convergent validity if it has a factor loading value greater than 0.7, composite reliability (CR) greater than 0.7, average variance extracted (AVE) value greater than 0.5, and composite reliability (CR) greater than 0.7. This work examined the cross-loading value and the Fornell-Larcker criterion to determine the validity test with the discriminant validity criteria. If each indicator has a higher value than the indicators of the other variables, the cross-loading of an indicator in a variable can be satisfied (Chawla & Joshi, 2019). If the correlation between variables with squared AVE is higher than that with other variables, the Fornell-Larcker criterion can be considered discriminantly valid (Chawla & Joshi, 2019). The reliability requirements were the next standard for a good questionnaire. According to (Guilhem, Leila Bernarda Donato Gottems, Elisabete Mesquita Peres De Carvalho & Pires, 2018) indicator with a Cronbach’s alpha value better than 0.6 is considered reliable.

3.4 Analysis of data

This study uses partial least squares (PLS), a variant-based structural equation model (SEM) methodology, to analyze the data (Nasution et al., 2020). Because the indicators utilized in this investigation are comparatively unstable and PLS-SEM may be applied to data that are not normally distributed, it was chosen to be employed in this study (Memon & Rahman, 2014).

3.5 Research Model and Hypotheses

The research model used in this study is shown in Figure 1. The proposed hypothesis is as follows.

- H1: Perceived ease of use positively and significantly affects attitude.
- H2: Perceived usefulness has a positive and significant effect on attitude.
- H3: Electronic word of mouth positively and significantly effect on attitude.
- H4: Perceived usefulness has a positive and significant effect on behavior intention.
- H5: Attitude has a positive and significant effect on behavior intention.
- H6: Electronic word of mouth positively and significantly affects behavior intention.

H7: Electronic word of mouth moderates the relationship between perceived ease of use and attitude.

H8: Electronic word of mouth moderates the relationship between perceived usefulness and attitude.

H9: Electronic word of mouth moderates the relationship between perceived usefulness and behavior intention.

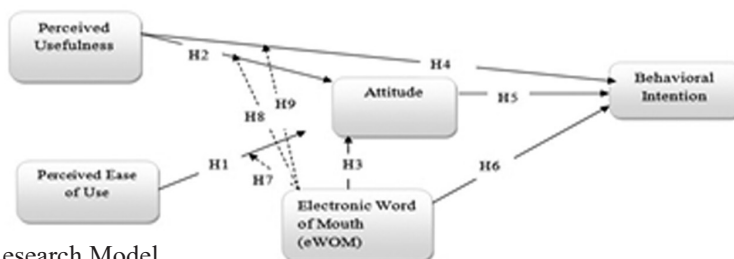


Fig: 1 Research Model

1. Analysis and Findings

4.1 Table no: 1 Demographic detail of the respondents

Measurement	Item	N	Percentage
Gender	Male	74	54.8
	Female	61	45.2
Age	<25 Years	24	17.8
	26-30	66	48.9
	36-40	9	6.7
	>40	11	8.1
Occupation	Private Employees	18	13.3
	Government Employees	13	9.6
	Business	31	23.0
	Students	45	33.3
	Others	28	20.7

4.2 Correlation matrix of latent variables

A correlation matrix of latent variables is a square matrix that displays the pair wise correlations between the latent variables in a statistical model. The correlation matrix method was applied in this study's CMV test (Tehseen et al., 2017). The high correlation between the latent variables, which approaches 0.9 ($r > 0.9$), can be used to determine if bias is present or absent. The research model was drawn using Smart PLS software. Then the latent variables' correlation was observed through PLS Algorithm. The correlation among all the constructs was less than 0.9. Thus, CMV is not an issue in this study.

Table: 2

	AT	BI	PEoU	PU	eWOM
AT	1				
BI	0.772	1			

PEoU	0.708	0.617	1		
PU	0.739	0.615	0.747	1	
eWOM	0.655	0.603	0.633	0.633	1

Structural equation modelling analysis utilizing tools from the Smart-PLS programme (version 3.0) is used in this study to test the hypothesis. Evaluating the structural model and evaluating the research hypothesis are the two stages of the SEM analysis.

4.3 Measurement Model Results

In essence, the measurement model is used to assess the reliability and validity of each construct of the research variables. Convergent and discriminant validity are two methods used in the SEM-PLS study to evaluate the construct validity level. All of the constructs that make up variables have factor loadings larger than 0.7, composite reliability (CR) values greater than 0.7, and average variance extracted (AVE) values greater than 0.5, according to the test findings provided in Table 3. The research variables thus satisfied the requirements for convergent validity.

Table: 3 Measurement Model results

Construct	Item	Factor Loadings	Cronbach's Alpha α	CR	AVE
Attitude(AT)	AT1	0.847	0.874	0.914	0.7264
	AT2	0.868			
	AT3	0.786			
	AT4	0.904			
Behavior Intention(BI)	BI1	0.917	0.921	0.945	0.810
	BI 2	0.921			
	BI 3	0.930			
	BI 4	0.830			
Perceived Ease of Use(PEoU)	PEoU1	0.883	0.939	0.957	0.845
	PEoU2	0.921			
	PEoU3	0.947			
	PEoU4	0.926			
Perceived Usefulness(PU)	PU1	0.902	0.866	0.909	0.715
	PU2	0.896			
	PU3	0.738			
	PU4	0.837			
Electronic Word of Mouth(eWOM)	eWOM1	0.817	0.911	0.932	0.694
	eWOM2	0.892			
	eWOM3	0.816			
	eWOM4	0.880			
	eWOM5	0.804			
	eWOM6	0.787			

note. AVE= Average Variance Extracted and CR= Composite Reliability.

The cross-loading value and the Fornell-Larcker criterion were used to evaluate the validity of test results based on the discriminant validity criteria in this study (Hair et al., 2011)SEM is equivalent to carrying out covariance-based SEM (CB-SEM) According to the findings displayed in Table 4, all loading values for each indicator are higher than the loading values for the other variables. As for the correlation, it was greater than the correlation of other variables, according to the results of discriminant validity testing based on the Fornell-Larcker criterion. The test findings in Table 5 demonstrate that the discriminant validity has been met because all square roots of AVE (diagonal values) are higher than the correlation coefficient between constructs

Table: 4 Outer loading factors

Indicator	AT	BI	PEoU	PU	eWOM
AT1	0.847	0.614	0.577	0.702	0.645
AT2	0.868	0.691	0.601	0.538	0.466
AT3	0.786	0.627	0.554	0.547	0.453
AT4	0.904	0.695	0.673	0.717	0.651
BI1	0.664	0.917	0.560	0.549	0.534
BI2	0.693	0.921	0.532	0.589	0.555
BI3	0.704	0.930	0.572	0.543	0.539
BI4	0.706	0.830	0.553	0.528	0.538
PEoU1	0.664	0.567	0.883	0.785	0.589
PEoU2	0.693	0.528	0.921	0.631	0.587
PEoU3	0.704	0.616	0.947	0.692	0.579
PEoU4	0.706	0.552	0.926	0.634	0.570
PU1	0.594	0.479	.587	0.902	0.524
PU2	0.662	0.546	.636	0.896	0.593
PU3	0.640	0.613	.718	0.738	0.509
PU4	0.578	0.402	.551	0.837	0.603
eWOM1	0.495	0.459	0.513	0.572	0.817
eWOM2	0.603	0.601	0.539	0.568	0.892
eWOM3	0.484	0.443	0.472	0.525	0.816
eWOM4	0.608	0.492	0.565	0.602	0.880
eWOM5	0.533	0.512	0.588	0.552	0.804
eWOM6	0.507	0.483	0.474	0.475	0.787

Table: 5 Farnell & Lacker Criterion Values

	AT	BI	PEoU	PU	eWOM
Attitude(AT)	0.851				
Behavior Intention(BI)	0.771	0.899			
Perceived Ease of Use(PEoU)	0.708	0.617	0.919		
Perceived Usefulness(PU)	0.739	0.615	0.747	0.842	
Electronic Word of Mouth(eWOM)	0.655	0.603	0.633	0.660	0.830

All research variables have a Cronbach's value of more than 0.6, according to the test results in Table 3, demonstrating that they all met the reliability requirements. As a result, the constructs used to assess the variables in this study were valid and reliable.

4.4 Structural Model

The structural model in this study was implemented using a bootstrap approach with 10,000 repeat samples to improve estimation accuracy (Streukens & Leroi-Werelds, 2016) which relies on bootstrapping in partial least squares structural equation modeling (PLS-SEM). All connections between the study variables, beta, and t values can be approximated using bootstrap testing. The given below Table 6 depicts the estimation results.

Table: 6 Structural Model

Relationship	Std. Beta	Std error	T-value	P	Results	R ²	Q ²	f ²
H1 PEoU->AT	0.302	0.083	3.680***	0.000	Not rejected			0.087
H2 PU->AT	0.402	0.074	5.468***	0.000	Not rejected	0.627	0.446	0.148
H3 eWOM ->AT	0.210	0.071	2.999***	0.000	Not rejected			0.072
H4 PU->BI	0.079	0.080	0.984***	0.327	Rejected			0.002
H5 AT->BI	0.622	0.083	7.597***	0.000	Not rejected	0.611	0.495	0.424
H6 eWOM ->BI	0.213	0.081	2.651***	0.008	Not rejected			0.034

Note: (***) significant level <99%; (**) significant level <95%; (*) significant level <90%.

Table 6 shows that Hypothesis 1 (H1) the variable of perceived ease of use (PEoU) on attitude has a value ($\beta = 0.302$, $t = 3.680$, $f^2 = 0.087$), so it can be inferred that perceived ease of use (PEoU) has a crucial effect on attitude. This study the results of research done by (Usman, 2020) which proves that perceived ease of use (PEoU) has a significant effect on attitude. Thus, the perception of ease by social networks determines the attitude toward receiving information from social networks. The variable of perceived usefulness (PU) on attitude has a value of ($= 0.402$, $t = 5.468$, $f^2 = 0.148$), according to the findings of testing Hypothesis 2 (H2). Thus, attitude is significantly influenced by perceived usefulness (PU). The result indicates that domestic travellers' opinion of online media networks might be influenced by their view of how simple or informative the networks are. The findings of this study corroborate those of (Usman, 2020) which demonstrate that perceived usefulness (PU) significantly influences attitude.

The electronic word of mouth (eWOM) variable's value ($= 0.210$, $t = 2.999$, $f^2 = 0.072$) in the results of testing hypothesis 3 (H3) indicates that eWOM has a substantial positive effect on attitude. Therefore this research supports the findings of the researches carry out by (Zarrad H & Debabi M, 2015) we conducted a structural equation model (SEM, (Rofianto et al., 2017) but it is still fragmented and overlook the potential of Visual eWom (VeWOM, (Doosti et al., 2016) attitude, and city image affect tourists' intention to visit a tourism city. Design/methodology/approach – Drawing from the tourism management literature, the authors hypothesize and test the relationships among e-WOM,

attitude, overall city image, and visit intentions. Structural equation modeling was conducted to test the proposed relationships among the variables. Findings – The empirical results suggested that e-WOM has a positive and significant influence on tourists’ attitude and overall city image. Further, e-WOM, attitude toward city, and overall city image were significant determinants of visit intentions. Originality/value – The paper contributes to understand the relationship between four constructs of e-WOM, attitude, and overall city image and visit intentions, tested in city tourism in the context of a tourism city.”,”author”:[{“dropping-particle”：“”,“family”：“Doošti”,“given”：“Shabnam”,“non-dropping-particle”：“”,“parse-names”：false,“suffix”：“”}, {“dropping-particle”：“”,“family”：“Jalilvand”,“given”：“Mohammad Reza”,“non-dropping-particle”：“”,“parse-names”：false,“suffix”：“”}, {“dropping-particle”：“”,“family”：“Asadi”,“given”：“Ali”,“non-dropping-particle”：“”,“parse-names”：false,“suffix”：“”}, {“dropping-particle”：“”,“family”：“Khazaei Pool”,“given”：“Javad”,“non-dropping-particle”：“”,“parse-names”：false,“suffix”：“”}, {“dropping-particle”：“”,“family”：“Mehrani Adl”,“given”：“Parisa”,“non-dropping-particle”：“”,“parse-names”：false,“suffix”：“”}],“container-title”：“International Journal of Tourism Cities”,“id”：“ITEM-1”,“issue”：“2”,“issued”：{“date-parts”：[[“2016”]],“page”：“137-148”,“title”：“Analyzing the influence of electronic word of mouth on visit intention: the mediating role of tourists’ attitude and city image”,“type”：“article-journal”,“volume”：“2”},“uris”：[“http://www.mendeley.com/documents/?uuid=6cb14480-7f74-4aea-b65b-0b12864704f4”]],“mendeley”：{“formattedCitation”：“(Doošti et al., 2016),(Chi & Qu, 2008),(Nguyen Phuc & Bui Thanh, 2022),(Cam et al., 2019), (Albarq, 2013), (Amalia et al., 2019), (Guha, 2009), (Hasan et al., 2019),(Chung et al., 2015),(Hidalgo et al., 2014) which establish the impact of electronic word of mouth (eWOM) on attitude. While testing hypothesis 4 (H4), PU on behavior intention has a value ($\beta = 0.079$, $t = 0.984$ $f^2 = 0.002$), so it can be inferred that PU has no significant effect on behavior intention. The study’s outcome aligns with those of (Muslichah, 2018), proving that perceived usefulness (PU) does not affect behavioral intention. Thus, there is an indication that the effect of perceived usefulness (PU) on behavioral intention is indirect. However, this research does not support the results of the study conducted by Karmanto and Baskoro (2020), Sulaiman (2020), Karmanto, Mahri, and Nurasyiah (2021); Kholid (2018) and Niswah et al. (2019), which prove that perceived usefulness (PU) has a significant effect on behavioral intention. And this finding does not support the result of (Mendes-Filho et al., 2018), (Sulthon & Wafirah, 2021),(Ukpabi & Karjaluoto, 2018), (Granic & Marangunic, 2015), (Loredana Di Pietro, Francesca Di Virgilio, 2012). The findings of testing hypothesis 5 (H5) show that attitude impacts behavioral intention since the attitude variable is ($\beta = 0.622$, $t = 7.597$, $f^2 = 0.424$). The findings of the study also steady with (Allameh et al., 2015) perceived quality, perceived value, satisfaction and revisit intention of sport tourism in Iran. Design/methodology/approach – Statistical population of this research consisted of those tourists who traveled to Mazandaran province in Iran as a sport tourism destination in 2012. A random sample of 1,250 tourists was asked to respond to questionnaires from which 886 accurate questionnaires were used for analysing data. Structural equation modeling (SEM,(Ran et al., 2021) however, is fueled by domestic tourism. As one of the biggest tourism markets in the world, U.S. tourists might be reluctant to travel to China due to reasons such as unfamiliarity, cultural differences, visa requirements, and long flights. Building on the Theory of Planned Behavior (TPB,(Di Pietro et al., 2012). The electronic word of mouth (eWOM) variable on behavioral intention is ($\beta = 0.213$, $t = 2.651$, $f^2 = 0.034$), according to the results of testing hypothesis 5 (H6). Therefore, electronic word of mouth (eWOM) has significantly improved behavior intention. The findings of this study backed the inferences of the studies of (Jalilvand & Samiei, 2012) as well as a decrease in television advertising, word of mouth (WOM,(Yu et al., 2014) social-psychological and hedonic needs, the factors that impact their behavioral intentions, such as purchase intention, WOM intention, and attitudes of destination brands have not been well studied. By conducting a two-phase study on Chinese travel consumers (nposts =65; nratings=1668,(Ye et al., 2011) which demonstrate that electronic word of mouth (eWOM) significantly influences behavioral intention.

Overall, the test results show that the study does not reject any of the five hypotheses (H1, H2, H3, H5, and H6) and rejected one of the six hypotheses (H4). With an R² of 0.627, it can be found that electronic word of mouth (eWOM), perceived usefulness (PU), and perceived ease of use (PEoU) account for 62.2% of the variation in attitudes. The behavioral intention, on the other hand, has an R² of 0.611, indicating that attitudes, perceived usefulness (PU), and electronic word of mouth (eWOM) can account for 61.0% of the variation in behavioral intentions.

4.5 Moderating Analysis

Table: 7 Moderating Analysis

Relationship	Std. Beta	Std error	T-value	P	Results
H7 eWOM *PEoU->AT	-0.107	0.062	1.744***	0.082	Not rejected
H8 eWOM *PU->AT	0.113	0.061	1.880*	0.061	Not rejected
H8 eWOM *PU->BI	0.101	0.039	2.616***	0.009	Not rejected

Note: ***) significant level<99%; **) significant level<95%; *) significant level<90%.

The moderation results demonstrate that eWOM*PEoU->AT($\beta=-0.107, p<0.1$). Although, the resulting β value is negative in meaning Electronic Word of Mouth (eWOM) in this study, which weakens the Perceived Ease of Use (PEoU) and attitude can take place when domestic travellers receives negative comments. As for eWOM*PU->AT ($\beta=0.113, p<0.1$). The resulting β value is positive. This indicates that eWOM can boost up the Perceived Usefulness (PU) relationship with Attitude with a significance level of <90%. For eWOM*PU-> BI ($\beta=0.101, p<0.05$, significant level at 95%). This underlines that eWOM can strengthen the relationship between Perceived Usefulness (PU) and Behavioral Intention because the β value is positive.

5. DISCUSSIONS AND CONCLUSIONS

The outcomes of the current study corroborate our hypotheses and validate the proposed model. Attitude is greatly influenced by perceived ease of use (PEoU), perceived usefulness (PU), and electronic word of mouth (eWOM). This study has statistically demonstrated that attitude and electronic word of mouth (eWOM) impact behaviour intention. This study's intriguing conclusion is that no evidence of perceived usefulness (PU) affects behaviour. This study's moderating impact test showed that electronic word of mouth (eWOM) weakens the link between attitude and ease of use (PEoU). In the meantime, eWOM can make the connection between attitude and perceived usefulness (PU) stronger. According to research on the moderating effect, electronic word of mouth (eWOM) can also make a stronger connection between perceived usefulness (PU) and behavioral intention.

The impression of the value of and attitude towards using social networks to gather information for the selection of a travel destination are both influenced by eWOM communication. Social media networks have an inevitable role in tourism and hospitality industry in the present scenario (Sørensen, 2007), (Cenamor et al., 2017). This particular research benefits both the travellers as well as tourism marketers. Kerala tourism has a global recognition and demand. The study's conclusions complement the marketing and communication plans of Kochi's hospitality and tourism marketers, who must create, oversee, and take care of their brands, services, events, and goods in a

virtually limitless virtual space. There are social networks that supports tourism industry in Kerala. Travellers use these in various ways and behave towards them before making decisions and after they return from their trip (post-consumption). Social media applications and other ongoing technological advancements will enhance the tools for establishing a more direct connection between marketers and clients, bypassing conventional communication channels.

This study takes an interdisciplinary approach, combining the methods and knowledge of numerous fields, including Management Science, Psychology, and Tourism, and broadening the scientific discussion on the importance of social networks in tourist destinations, including behavioral intention. The results represent one of the newer initiatives to look into tourist behavior as a decision-supporting tool. Consequently, experts and researchers from several fields would be interested in this work.

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ARE NBFC-MFIs EXTENSIVELY OUTREACHING IN THE INDIAN MICROFINANCE INDUSTRY

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ABSTRACT

The microfinance sector played a significant and leading role in the country's economic development. Entrepreneurship is the process of starting a business. The outcome of processes is the enterprise, which is composed of individual business units. NBFC-MFIs play an important role here by assisting micro entrepreneurs with funding assistance. Through microcredit Non-banking financial companies have been playing an increasingly important role in alleviating poverty in rural areas and underprivileged areas of society. In order to measure the outreach of NBFC-MFIs, microfinance institutions are measured by their performance. The outreach efforts of MFIs also focus on extending loans and financial services to borrowers. By providing self-employment opportunities and facilitating income generation to the most vulnerable sections of society, microcredit can be viewed as making a positive impact on empowerment and entrepreneurship. Due to high competition among Microcredit service providers, it is time to know NBFC-MFIs outreach in Microcredit. The disbursement of funds required only social collateral, not physical collateral, which gives NBFC-MFIs a wide scope for expansion. The present paper is an attempt to study the outreach of NBFC-MFI in promoting micro entrepreneurship.

Keywords: Entrepreneurship, Microfinance, Microcredit, NBFC-MFIs, Outreach

INTRODUCTION

The NBFC-MFI category was introduced in 2011 as a new category in the NBFC sector, in order to reach the undeserved in Microfinance. The microfinance industry is composed of NBFC -MFIs, Banks, SFBs, NBFCs, and Non-profit MFIs. (MFIN annual report 2020) Among NBFC-MFIs is play an important role in providing financial assistance in the form of microfinance and enabling borrowers to build assets and acquire self-employment (Goel R.& Aggarwal M 2020) These are the companies a diverse group of financial intermediaries that serve as an alternative channel of credit for the Indian economy amid the banking monopoly (Mohan, B. 2014) NBFCs are a significant player in the Indian financial system by providing credit to low-income people and solidarity lending groups for self-employment and wealth creation (Shah, S R.& Chacharkar D Y, 2020). Small local borrowers and the unorganized sector benefit from the credit provided by these companies. Microfinance is a crucial component of the economic development of any country. There are many channels that provide microfinance credit to people, among them NBFC-MFI are very effective channels of giving small loans to the poor and underprivileged section of the society.(Roy P& Patro B 2021). The NBFC-MFI's most important responsibility is empowering vulnerable sections of society. The mission of MFIs is to provide loans to individuals and small businesses from poor strata of society.,

Apart from supporting economic development, they also support societal uplift and autonomy (Manda V. K. & Rani, P S, 2019) NBFC-MFIs are exclusively formatted to promote micro entrepreneurs, hence it is necessary to undertake a study to analyse the role in promoting micro entrepreneurs.

MICROFINANCE AND ENTREPRENEURSHIP

Microfinance is the most important source of financing for the socially backward people to engage in self-employment and other activities to increase their standard of living. An NBFC-MFI contributes significantly in empowering the underprivileged sections of the society and has a special focus on women entrepreneurs (Swati S, 2018) NBFCs have a tremendous opportunity for growth in India. Non-Banking Financial companies playing a very important role in removing poverty in the rural sector and underprivileged sections of society by providing strong support in the form of Microcredit. (Mohd S, 2018). A microcredit program provides financial services to unemployed or low-income individuals or groups without other access to financial services (Hunt K H M, 2013). A wide array of high-quality financial products and services are accessible to low-income and socially marginalized households, enabling them to achieve financial independence.

The need for Microfinance in the development of poor people stating that it is not a luxurious way of spending but daily consumption needs is achieved by way of Microfinance in most cases, (Singh S, 2017.) The importance role of NBFCs is promoting credit to unorganized and small borrowers. The successful formation of the NBFCs sector is needed in the promotion of economic development of the country (Kshetrimayum R. & Singh R, 2014). NBFCs is needed in strengthening the Indian economy and to make strong financial inclusion. NBFC-MFIs are considered as stress-free sectors to receive the fund generation, with simplified procedures and flexibility in operation. (Kaushal H R, 2016) performance based on outreach factors like branches operating, employee's strength, and client database, and loan portfolio that among different microfinance models NBFCs-MFI occupied a very important place among microfinance industry (Badruddin A. & Anees Mohammed, 2018) The scheme covers under microfinance is for the promotion of women borrowers in the weaker and unprivileged sections of society. The impact of the scheme reflects on their standard of living and saving habits. (Manu M, 2018) RBIs tightening norms for NBFCs Management for the effective operation to overcome crisis in NBFCs (Vijayyakittu Manda & Sairani, P, 2019)

IMPORTANCE OF MICROFINANCE

In general, low-income individuals cannot access conventional financial services due to the lack of collateral and sufficient income to qualify for loans, save money, and insure their families. There is still a perception among some financial institutions that women are not creditworthy to start business and repay the loan amount. The only alternative that most low-income individuals have is to borrow money from local private finance lenders, who charge immoderate interest rates that make it impossible for them to repay the loans. The Importance of microfinance in India is that it provides access to working capital to micro entrepreneurs (Chauhan S, 2021). Borrowers who take out microfinance receive economic growth, security, and the opportunity to succeed (Esampally C & Joshi M K, 2016).

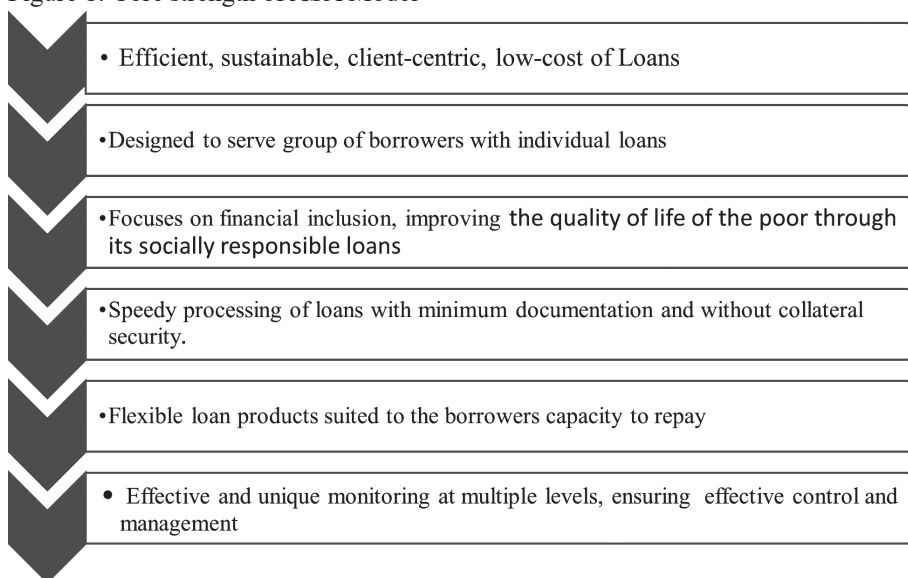
The theory of microcredit emphasizes on women also by supporting to standardize their life through loans. In addition to empowering poor women, it enables them to aiding directly to the well-being of their families, and combats all the gender inequalities in society. (Budampati 2022) A major target of microfinance is poor rural and urban households as well as women. It is important for the weaker sections of the population to have access to credit in order to maintain the common

imbalance between their incomes and their expenses. In addition to that, it is important for the poor to have access to it for activities that generate income such as marginal farm investments and other forms of small-scale self-employment (Akanji O,2001). Their access to formal banking channels is low due to the non availability of collateral security and lot of legal formalities to obtain formal credit. As a result, Self-help organizations and microfinance in India are increasing the use of traditional banking channels to provide credit to poor people.(Status of microfinance NABARD 2021-2022)

ASA MODEL - AN INNOVATIVE AND SUSTAINABLE MICROFINANCE MODEL

Microfinance is an effective tool for alleviating poverty according to the ASA model. It was founded in Bangladesh with the vision of creating a world free from poverty. There have been numerous microfinance institutions and banks throughout the world adopting the ASA model with great success.

Figure 1: Core strength of ASA Model



Source: The Bharath Microfinance Report 2021

RESULT AND DISCUSSION

Microfinance is not just about giving microcredit to the poor and low-income people; it is also an economic-development tool aimed at assisting the poor to get out of poverty. Microfinance institutions enable borrowers to gain access to a wide array of financial services like microloans, micro insurance, micro savings, money transfers, training, counselling, etc. Microfinance institutions serve as supplements to banks as a convenient and easy way for borrowers to borrow. NBFCs-MFIs play a dominant role in the microfinance industry by providing better and timely credit solutions to the poor in semi-rural, urban, and rural settings.

The Indian banking sector has faced a lot of problems over the last few years as a result of non-performing assets (NPAs), despite the laws and regulations that are followed by the Govern-

ment, Reserve Bank of India, etc. In this scenario, NBFCs have received a new gateway to growth and development. NBFC-MFIs play a greater role in the banking system and contribute to the economic development of the country by way of promoting entrepreneurs for fund generation to promote their entrepreneurship activities. The Government is strongly promoting entrepreneurship among low-income people through micro lending and other microfinance activities and therefore can assist the NBFC sector in India in achieving greater efficiency and realizing their full potential, and attain greater efficiency while performing the duties. The main advantages of NBFC -MFIs in India are instant access to credit, flexible repayment schedules, and ground-level understanding of their customers.

The microfinance industry provides an important source of funds that enable downtrodden people to engage in self-employment and other activities that can lead to standardizing their lives. Women are the majority of borrowers, and their inability to commit to work due to family issues poses a serious problem to NBFCs. In this regard, the NBFC-MFI is in a unique position to monitor the vulnerable groups and assist them through their privileged position. A NBFC-MFI's most important responsibility is empowering vulnerable sections of society. Government has offered liberalized procedures to reach out to untouched populations. It is vital to be able to survey the activities of NBFC-MFI from a bird's eye view. In this regard, a study has been proposed that will examine NBFCs' role in microfinance activities.

Table No 1: Gross Loan portfolio and Micro credit Portfolio

Year	Gross Loan Portfolio (Rs in Cr)	Micro Credit Portfolio(Rs in cr)
2017-18	48094	47934
2018-19	68207	67009
2019-20	74371	73792
2020-21	81475	80549
2021-22	96561	100407
Mean	73741.60	73938.20
S.D	17814.02	19160.86
C.V	24.16	25.91
AGR(%)	19.73	20.93
LAGR	11020.20	11848.60
CAGR(%)	17.02	18.09

Source: Computed data

Table 1 exhibits the Gross loan portfolio in the NBFC-MFI sector have increased from 48094 crore in the year 2017-18 to 96561 crore in the year 2021-22. During this five year period, the average number of Gross loan portfolio are found to be 73741.60, with an S.D of 17814.02. The C.V (Coefficient of Variation in %), is a statistical term which is expressed in percent used understand about the relative variability of a data set. However, arbitrarily it can be said that a C.V% of less than 20% is normal. The C.V% for Gross loan portfolio shows that the variability during the five year period is 24.16 % The C.V% more than 20% shows that there is higher variability in the amount of gross loan portfolio in the study period, which means the distribution of loan amount in

the 5 year period shows much variation. The AGR is found to be 19.73 which shows that on average Gross loan portfolio are growing at the rate of 19.73%.LAGR is another growth rate expressed in terms of the units with which the observations are measured. LAGR shows the trend of the time series data .The LAGR of 11020.20 shows that the linear growth rate of Gross loan portfolio is 11020 (rounded off) which means that it is expected Gross loan portfolio will grow at the rate of 11020 every year. CAGR is the compounded annual growth rate, which explains the overall growth achieved during the five year period. The CAGR of Gross loan portfolio is 17.02%.

The micro credit portfolio in the NBFC-MFI sector have increased from 47934 cr in the year 2017-18 to 100407 crore in the year 2021-22. During this five year period, the average micro credit portfolio are found to be 73938.20, with an S.D of 19160.86 .The C.V (Coefficient of Variation in %), is a statistical term which is expressed in percent used understand about the relative variability of a data set. However, arbitrarily it can be said that a C.V% of less than 20% is normal. The C.V% for microcredit portfolio shows that the variability during the five year period is 25.91 % .The C.V% more than 20% shows that there is higher variability in the amount of gross loan portfolio in the study period, which means the distribution of loan amount in the 5 year period shows much variation. The AGR is found to be 20.93 which show that on micro credit portfolio are growing at the rate of 20.93 % .LAGR is another growth rate expressed in terms of the units with which the observations are measured. LAGR shows the trend of the time series data .The LAGR of 11848.60 shows that the linear growth rate of micro credit portfolio is 11848.60 which means that it is expected micro credit portfolio will grow at the rate of 11848.60 every year. CAGR is the compounded annual growth rate, which explains the overall growth achieved during the five year period. The CAGR of micro credit portfolio is 18.09 %.

Table No 2: Loan accounts and Loan amount disbursed

Year	Loan accounts(Rs in cr)	Loan amount disbursed (Rs in Cr)
2017-18	2.84	59629
2018-19	3.88	82928
2019-20	3.91	77072
2020-21	3.77	57891
2021-22	3.90	83354
Mean	3.66	72174.80
S.D	0.46	12510.12
C.V	12.62	17.33
AGR(%)	9.32	12.78
LAGR	0.20	2241.30
CAGR(%)	6.24	3.15

Source: Computed data

Table 2 exhibits the Loan accounts in the NBFC-MFI sector have increased from 2.84 cr in the year 2017-18 to 3.90 crore in the year 2021-22. During this five year period, the average number of Loan accounts are found to be 3.66 , with an S.D of 0.46.The C.V (Coefficient of Variation in %), is a statistical term which is expressed in percent used understand about the relative variability of

a data set. However, arbitrarily it can be said that a C.V% of less than 20% is normal. The C.V% for Loan accounts shows that the variability during the five year period is 12.62 % which can be considered as normal. The AGR is found to be 9.32 which shows that on Loan accounts are growing at the rate of 9.32%.LAGR is another growth rate expressed in terms of the units with which the observations are measured. LAGR shows the trend of the time series data .The LAGR of 0.20 shows that the linear growth rate of Loan accounts is 0.20 which means that it is expected Gross loan portfolio will grow at the rate of 0.20 every year. CAGR is the compounded annual growth rate, which explains the overall growth achieved during the five year period. The CAGR of loan accounts is 6.24%.

The Loan amount disbursed in the NBFC-MFI sector have increased from 59629 cr in the year 2017-18 to 83354 cr in the year 2021-22. During this five year period, the average Loan amount disbursed are found to be 72174.80 , with an S.D of 12510.12.The C.V (Coefficient of Variation in %), is a statistical term which is expressed in percent used understand about the relative variability of a data set. However, arbitrarily it can be said that a C.V% of less than 20% is normal. The C.V% for Loan amount disbursed shows that the variability during the five year period is 17.33 % which can be considered as normal.The AGR is found to be 12.78 which shows that on Loan amount disbursed are growing at the rate of 12.78%.LAGR is another growth rate expressed in terms of the units with which the observations are measured. LAGR shows the trend of the time series data .The LAGR of 2241.30 shows that the linear growth rate of Loan amount disbursed is 2241.30 which means that it is expected loan amount disbursed will grow at the rate of 2241.30 every year. CAGR is the compounded annual growth rate, which explains the overall growth achieved during the five year period. The CAGR of loan amount disbursed is 3.15 %.

Table No 3: Loan disbursed

Year	Loans disbursed(Rs in cr)
2017-18	2.68
2018-19	3.25
2019-20	2.78
2020-21	1.70
2021-22	2.30
Mean	2.54
S.D	0.58
C.V	22.81
AGR(%)	0.81
LAGR	-0.23
CAGR(%)	-9.10

Source:Computed data

The Loan disbursed in the NBFC-MFI sector has decreased from 2.68 cr in the year 2017-18 to 2.30 cr in the year 2021-22. During this five year period, the average Loan disbursed are found to be 2.54 , with an S.D of 0.58.The C.V (Coefficient of Variation in %), is a statistical term which is expressed in percent used understand about the relative variability of a data set. However, arbitrarily it can be said that a C.V% of less than 20% is normal. The C.V% for Gross loan portfolio shows

that the variability during the five year period is 22.81 % . The C.V% more than 20% shows that there is higher variability in the amount of loan disbursed in the study period, which means the distribution of loan amount in the 5 year period shows much variation.

The AGR is found to be 0.81 which shows that on Loan accounts are growing at the rate of 0.81%.LAGR is another growth rate expressed in terms of the units with which the observations are measured. LAGR shows the trend of the time series data, here LAGR -0.23 shows on average, the loans disbursed have been decreasing at the rate of 0.23 Cr year over year. CAGR -9.10% shows that the overall growth of loans disbursed has been negative and it has decreased overall by 9.10% during the study period.

CONCLUSION

A country's financial institutions are integral to its economic development, which is why they are considered crucial. India has excellent financial institutions and inclusion tools, but our operations and ramifications are still weak. In present scenario Microfinance serve as a primary tool to reduce poverty alleviation among the entrepreneurs and to create higher status in the society. Moreover the microcredit from NBFC-MFIs provides strong basement for entrepreneurs to obtain fund without collateral security. Sustainability of the NBFC-MFIs to manage their operating expenses and the outreach is based on their reach ability and the growth of Micro borrowers. All this made it essential to evaluate the Microcredit practices of NBFC-MFIs. In India, the NBFC-MFI s segment has a tremendous chance for growth. In view of their economic importance, these organizations receive a great deal of attention from the Government and regulators. The substantial credit gap in the social-economic group at the bottom of the pyramid is filled by NBFC-MFIs. Microfinance has been a key factor in reducing poverty and raising the economic standing of disadvantaged members of society. Many public and private sector banks have been lending funds to microfinance institutions, which work for women's empowerment and alleviation of poverty. NBFCs is an ancillary for commercial banks for microfinance and other lending practices. A special category of NBFCs –MFI was started to promote exclusively microfinance activities. And the majority of loans are disbursed to women borrowers for their self-employment. Many NBFCs are faced with many challenging problems due to poor appraisal systems, difficulties in identifying income-generating activities, ineffective corporate governance practices, Lack of technological issues and a less attention in collection strategies from borrowers etc. By providing credit to low-income people and solidarity lending groups for self-employment and wealth creation the NBFC-MFIs makes strong pillar in entrepreneurial activities. The aim is to assist economically excluded communities in creating assets and securing incomes at the household and community levels. NBFC-MFIs have proven to be a vital platform for the Microfinance Loan market.

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EFFECT OF INNOVATION ON THE ORGANIZATIONAL PERFORMANCE OF SMALL AND MEDIUM SCALE ENTERPRISES (SMEs) IN INDIA

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Abstract

Innovation is widely recognized as a primary factor influencing the growth and sustainability of companies. The objective of this research is to investigate the impact of product, process, marketing, and organizational innovation on various dimensions of firm performance, such as innovation, production, market, and financial performances. This analysis is conducted using a sample of 390 manufacturing small and medium-sized enterprises (SMEs) in India. A conceptual framework is established in order to ascertain the relationship between innovation and performance, and subsequently investigated through the application of Structured Equation Modeling (SEM). The findings indicate that diverse forms of innovation exert a favorable impact on several dimensions of organizational performance. The study additionally revealed that organizational innovation serves as the primary factor influencing the performance of small and medium-sized enterprises (SMEs).

Keywords: *Innovation types, Organizational performance, Manufacturing SMEs*

INTRODUCTION

Innovation is crucial to a company's survival in the competitive global market. According to Porter (1990) and Drew (1997), investing in innovation is essential for market competitiveness. Creativity and its impact on company performance have been widely studied (Voss, 1994; Bettis and Hitt, 1995; Helfat and Peteraf, 2003). Researchers believe innovation management is an important area of business research. Bigger companies have always driven innovation and competition (Vossen, 1998). Due to fierce competition from local and international firms, small businesses are increasingly prioritising innovation.

Several studies (Wolff and Pett, 2006; Brich, 1989; Gunday et al., 2011; Subrahmanya M B, 2011) have acknowledged the importance of innovation in SMEs. Afuah (2003) claims that SMEs innovate more than larger companies. Small and medium-sized enterprises (SMEs) are more innovative than larger companies due to their flexibility, quick decision-making, and quick reaction capabilities. Indian small and medium-sized firms (SMEs) are considered a vital part of the economy owing to their diversified and considerable influence on job generation, industrial production, exports, and GDP. The latest figures show that this sector represents for 45% of manufacturing, 40% of exports, and 17% of GDP. According to the 2016-2017 MSME Annual report, the sector has the second-most employment opportunities behind agriculture. Innovation research has investigated the relationship between innovation and Previous research has shown conflicting links between innovation and organisational efficiency. This study examines how various types of innovation affect numerous aspects of business performance in manufacturing SMEs in India. The article's following

sections cover several subjects. The next section reviews the literature and forms hypotheses. The report describes the research method in detail. Following the data presentation and analysis, the research interprets the results. Results are discussed in detail, followed by a conclusion.

REVIEW OF LITERATURE AND HYPOTHESES DEVELOPMENT

Firms vary in originality. Company innovation comprises new or better goods, processes, marketing tactics, and administrative systems. UK SMEs make incremental gains (Oke et al., 2007). SMEs in Taiwan emphasise technical and marketing innovation, according to Chen et al. (2007). In Indian manufacturing SMEs, incremental technical innovation is widespread, according to Subrahmanya (2011). Egbetokun et al. (2008) observed that developing nation SMEs choose incremental over product or process innovation.

Many studies have examined the link between innovation and organisational success, but none have proved that various types of innovation effect performance differently. Interconnected breakthroughs may happen concurrently (Walker, 2004). Many studies emphasise administrative innovation. Gunday et al. (2011) suggest organisational innovation boosts Turkish SMEs. Administrative innovation boosts innovation and manufacturing SME performance, according to Shaukat S et al. (2013). Public libraries' organisational and technological innovation are strongly associated, according to Damanpour et al. (1989). Reviews provide the following hypotheses. Product/process/marketing innovations increase with organisational innovation.

Existing literature contains product and process innovation data. Investment in process innovation helps organisations create new goods, claim Li et al. (2007). Process and product innovation were positively correlated by Gunday et al. (2011). Oke et al. (2007) indicated that organised business implementation may aid incremental product or service innovation. The research also indicated that process innovation boosts company innovation. Therefore, process innovation helps producers to generate new or enhanced goods with higher quality, cost reduction, speed, and value to meet consumer expectations. Thus, this research hypothesised:

H:2: Process innovation helps manufacturing SMEs innovate products.

Integrate product and marketing innovations. Since product development depends on consumer wants and market demand, marketing and product innovation are linked. Innovation and marketing may meet client expectations by creating unique items. Few research have examined marketing-product development relationships. Marketing innovation impacts manufacturing product innovation, according to Gunday et al. (2011). Shaukat et al. (2013) observed that better marketing led to new product launches, boosting small and medium-sized enterprises. Thus, this research hypothesised: Marketing innovation helps manufacturing SMEs innovate products.

All innovations aim to boost company performance. Innovation studies evaluate corporate performance in different ways. Innovative, production, marketing, and financial performance comprise business performance. Innovation performance includes organisational innovativeness. Gunday et al. (2011) showed that Turkish SMEs' innovation performance boosts various types of innovation. The research also indicated that innovation performance influences innovation-organizational performance. Innovation types strongly correlated with success, according to Oke et al. (2007). Pakistani SMEs innovate better when they allocate more resources to diverse innovative projects (Shaukat et al., 2013). Administrative innovation boosts inventiveness, according to the research. The research hypothesises that innovation kinds affect performance.

H:4: Innovation types help manufacturing SMEs innovate.

Numerous studies indicate that innovation performance impacts production, marketing, and finances. Han et al. (1998) say innovation enhances companies' profits and growth. Gunday et al. (2011) showed that innovation improves SME production, marketing, and finances. The research also indicated that innovation success indirectly impacts Turkish SMEs' finances. Pelham (1997) and Wang and Wei (2005) discovered that a business's ability to innovate, such as by creating new products, helps it satisfy current consumers and attract new ones. This increases market share and revenues. Quadros et al. (2001) discovered that innovation boosts product quality, cost, and market share. Studies suggest that better innovation performance improves other aspects of manufacturing SMEs' performance (H:5).

Production drives company profitability. Chenhall (1997) defines performance as cost efficiency, speed, flexibility, and quality improvements. Fullerton and McWatters (2001) discovered excellent procedures improve finances. Gunday et al. (2011) found that manufacturing enterprises' output influences their finances. Hassan et al. (2013) revealed that Pakistani SMEs benefit from better manufacturing. Fullerton and Wempe (2009) valued financial and non-financial performance metrics. Therefore, increasing manufacturing efficiency and effectiveness would enhance firm earnings. The next hypothesis is:

H:6: Output boosts manufacturing SMEs' finances.

Several studies relate marketing success to financial performance. Sales and market share growth may enhance business profitability instantly. Sales, price premiums, and marginal cost reduction may enhance profits (Buzzel and Gale, 1987; Venkatraman and Prescott, 1990, Wang and Wei, 2005). Li (2000) says consumers are key to business success. Marketing skills also impact finances. Shaikat et al. (2013) showed marketing performance increases SME profitability. Manufacturing SMEs in Turkey with strong marketing are more lucrative, according to Gunday et al. (2011). Based on previous literature evaluations, this research hypothesised:

Better marketing helps manufacturing SMEs' finances.

This study created a conceptual model to examine innovation and organisational performance in Indian manufacturing SMEs based on earlier research. Figure 3.1 shows the study's framework. Manufacturing SMEs that use many kinds of innovation boost their creativity, according to the framework. This improved creativity should help production, marketing, and finances.

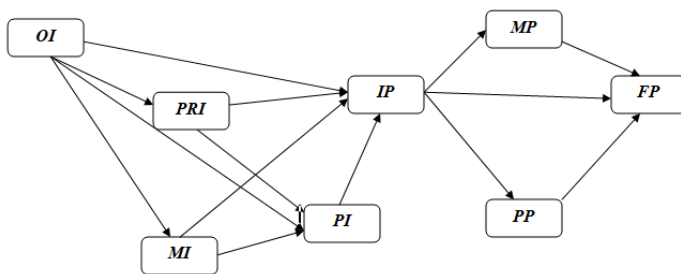


Figure 1
MODEL OF THE STUDY

RESEARCH METHODOLOGY

The research used a combination of primary and secondary data sources. The researchers acquired A standardised questionnaire was given to manufacturing SMEs' entrepreneurs. Additionally,

some published sources provided secondary data. A standardised questionnaire was used to collect data from 390 SMEs. The questionnaire has three parts. The first part examined product, process, organisational, and marketing innovation. A five-point Likert scale ranks the company's innovation over the last three years from 1 to 5. Levels 1 (Never), 2 (Rarely), 3 (Sometimes), 4 (Often), and 5 (Always). This section discusses company performance variables including innovation, production, marketing, and financial performance. A five-point Likert scale is used to compare performance measures over the last three years. This scale goes from 1 to 5, with 1 denoting "Very Unsuccessful," 2 "Unsuccessful," 3 "Neutral," 4 "Successful," and 5 "Very Successful." The study concluded with demographic data about respondents' firms. The study examined how different types of innovation affect manufacturing SMEs using Structural Equation Modelling (SEM).

DATA ANALYSIS AND INTERPRETATIONS

Correlation analysis

Table 1- Correlation analysis

	<i>PI</i>	<i>RI</i>	<i>MI</i>	<i>OI</i>	<i>IP</i>	<i>FP</i>	<i>MP</i>	<i>PP</i>
<i>PI</i>	1	0.75**	0.64**	0.68**	0.43**	0.23**	0.32**	0.19**
<i>PRI</i>		1	0.74**	0.74**	0.35**	0.21**	0.26**	0.17**
<i>MI</i>			1	0.69**	0.36**	0.22**	0.26**	0.15**
<i>OI</i>				1	0.41**	0.27**	0.28**	0.31**
<i>IP</i>					1	0.45**	0.36**	0.31**
<i>FP</i>						1	0.55**	0.54**
<i>MP</i>							1	0.41**
<i>PP</i>								1

** Significant at 5% level

(*PI*: Product innovation, *PRI*: process innovation, *MI*: marketing innovation, *OI*: organizational innovation, *IP*: innovation performance, *FP*: financial performance, *MP*: marketing performance and *PP*: production performance)

The obtained correlation results, as shown in Table 1, indicate a statistically significant association among almost all of the variables. The presence of a positive correlation between various forms of innovation and the performance of firms suggests that small and medium-sized enterprises (SMEs) with strong skills in product, process, marketing, and organizational innovation tend to see improvements in their inventive, production, marketing, and financial performance. The correlation table also suggests the presence of multicollinearity difficulties, since the link between independent variables does not exhibit significant strength.

The goodness of fit indices

Table 2-The goodness of fit indices

Indices	Value of construct
	3.495
Comparative Fit Index (CFI)	0.756
Normal Fit Index (NFI)	0.690
Relative Fit Index (RFI)	0.667
Incremental Fit Index (IFI)	0.757
Tucker_ Lewis fit Index (TLI)	0.737
Root Mean Square Error (RMSEA)	0.080

The χ^2 value of 3.495 is within the acceptable range (0 to 5), with lower χ^2 values indicating a better fit (Wheaton et al., 1977). In a similar vein, the other indices, namely CFI (Comparative Fit Index), NFI (Normal Fit Index), RFI (Relative Fit Index), IFI (Incremental Fit Index), and TLI (Tucker-Lewis Fit Index), have values approaching 0.9, indicating a reasonable level of fit for the model. Furthermore, the RMSEA (Root Mean Square Error) value of 0.080 indicates a satisfactory level of approximation error, since lower values, namely below 0.08, are considered more desirable. Therefore, it may be inferred that the variables are suitable for further statistical investigation.

REGRESSION RESULT

The effect of types of innovation on different aspects of SMEs performances is measured. Various hypotheses are developed based on previous literature. The following table displays the result of regression analysis along with the decisions regarding hypothesis acceptance.

Table 3-Regression result

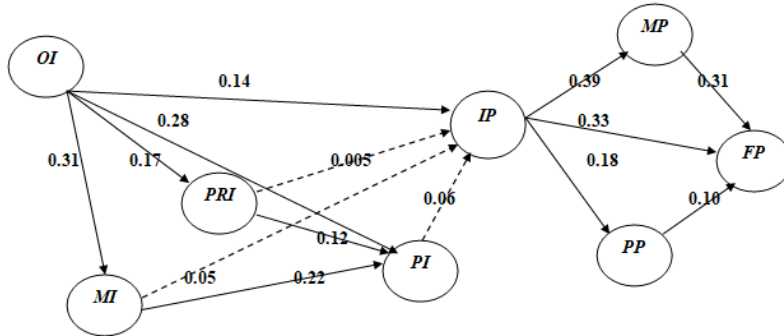
	Path	Estimate	P_ value	Sig
H1a	Organizational Innovation to Product Innovation	.280	.000	*
b	Organizational Innovation to Process Innovation	.176	.002	**
c	Organizational Innovation to Marketing Innovation	.315	.000	*
H2	Process Innovation to Product Innovation	.121	.018	**
H3	Marketing Innovation to Product Innovation	.223	.000	*
H4a	Product Innovation to Innovative Performance	.064	.342	NS
b	Process Innovation to Innovative Performance	.005	.929	NS
c	Marketing Innovation to Innovative Performance	.050	.442	NS
d	Organizational Innovation to Innovative Performance	.148	.033	**
H5a	Innovation Performance to Marketing Performance	.392	.000	*

b	Innovation Performance to Production Performance	.187	.002	**
c	Innovation performance to Financial performance	.333	.000	*
H6	Production Performance to Financial Performance	.102	0.027	**
H7	Marketing Performance to Financial Performance	.317	0.000	*

*Significant at 1 % level, ** Significant at 5% level and NS (Not Significant)

Path diagram

Figure 2



PATH MODEL RESULT

Table 3 and Figure 2 illustrate path model findings. Analysis and empirical testing of the overall model. This study investigates innovation linkages. The results show a strong link between organisational innovation and product, marketing, and process innovations. Marketing and product innovations significantly affect industrial innovation, as seen in the table. The model also analyses how various types of innovation affect innovation performance. Innovation performance is positively impacted by many kinds of innovation, with organisational innovation being the sole statistically significant influence. Innovation performance and marketing performance are more strongly correlated, according to regression study. Innovation performance indirectly affects SMEs’ financial performance via marketing and manufacturing. The graphic also shows that manufacturing and marketing affect financial success. The table shows that organisational innovation indirectly affects Indian SME output, marketing, and financial success.

DISCUSSION OF THE RESULTS

Empirical findings support the conceptual framework and innovation-performance studies. Innovation kinds are linked by data. Advanced organisational strategies may assist SMEs develop product, process, and marketing. In small and medium-sized industrial enterprises, reorganising administrative processes or legislation may foster innovation. The correlation between administrative and marketing advances is strongest. Several research found comparable findings. Administrative innovation improves product innovation (Camison and Villar-Lopez, 2012). The research shows that marketing and process innovation increase product innovation. Innovative production and marketing tactics in manufacturing SMEs may produce new goods. So H:2 and H:3 are acceptable. Gunday et al. (2011) and Hassan (2013) found a substantial correlation between process, marketing, and product innovation in small and medium-sized manufacturing firms.

Next, the research examined how innovation categories impact performance. Data suggest that diversified innovation improves performance. Empirical study shows administrative innovation drives manufacturing SMEs' performance. Every other invention is insignificant. poor SME involvement may explain innovative performance's poor effect. Previous research reported similar outcomes (Yeh-Yum & Ti-Ching, 2007; Gunday et al., 2011; Shaukat, 2013). The present study opposes Gunday et al. (2011) and Shaukat S et al. (2013) on how product, process, and marketing innovations affect SMEs' innovation performance.

Innovative performance is assessed by several organisational performance criteria. The study shows that innovation enhances production, marketing, and finances. This shows that innovative Indian manufacturing SMEs do better organizationally. Innovation boosts SME success (Gunday et al., 2011; Shaukat S, 2013). The research also reveals that marketing and manufacturing success enhances finances. SMEs with superior production and marketing do better financially. This research supports H6 and H7. Previous research has consistently demonstrated similar results. For example, Gunday et al. (2011) discovered that innovative Turkish SMEs had improved financial, marketing, and production performance. For Pakistani SMEs, Shaukat et al. (2013) observed comparable results. Technology and marketing promote financial success, according Olughor (2015). Technological and marketing breakthroughs promote financial and market success, claim Salim and Sulaiman (2011). Innovation boosts market share, productivity, and organisational efficiency, say Shefer and Frenkel (2005). The research also indicated that organisational innovation indirectly impacts Indian SMEs' production, marketing, and finances. Model says organisational innovation influences Indian manufacturing SMEs' performance. Because it prepares for future developments. Successful organisational innovation boosts production, marketing, and financial performance for Indian SMEs.

CONCLUSION

The actual findings support the theoretical framework and innovation-performance studies. A full research and findings explanation follow. The research started with innovative linkages. Many breakthrough categories are linked by the data. Advanced organisational innovations boost SME product, process, and marketing innovations. This suggests that reorganising administrative processes or norms may boost creativity in SME manufacturing enterprises. Administrative and marketing developments are more linked than others. Therefore, H:1a, H:1b, and H:1c are approved. Several research found comparable findings. Organisational innovation boosts product, process, and marketing innovation in Turkish SMEs, according to Hurley and Hult (1998), Gunday et al. (2011), and Hassan (2013). Administrative innovation enhances product innovation (Camison and Villar-Lopez, 2012). Marketing and process and product innovation were positively correlated, as predicted. Manufacturing SMEs may create new products using innovative production and marketing methods. So H:2 and H:3 are acceptable. Gunday et al. (2011) and Hassan (2013) found a substantial association between process, marketing, and product innovation in manufacturing SMEs.

Next, the research examined how innovation categories impact performance. All innovation improves innovation performance, study shows. Administrative innovation shapes manufacturing SMEs due to organisational innovation. Every other invention is insignificant. Thus, H:4d is accepted while H:4a, B, and C are refused. poor SME involvement may explain innovative performance's poor effect. Yeh-Yum and Ti-Ching (2007), Gunday et al. (2011), and Shaukat (2013) reported comparable findings. This study contradicts Gunday et al. (2011) and Shaukat S et al. (2013) by finding that product, process, and marketing innovations hurt SMEs' innovation performance.

Innovative performance is assessed by several organisational performance criteria. The study

shows that innovation enhances production, marketing, and finances. The claim implies that innovative Indian manufacturing SMEs function better organizationally. Accepting hypotheses 5a–5c. The result fits earlier research. Innovation boosts SME success (Gunday et al., 2011; Shaukat S, 2013). The research also reveals that marketing and manufacturing success enhances finances. SMEs with superior production and marketing do better financially. This research supports H6 and H7. Previous research has consistently demonstrated similar results. Gunday et al. (2011) showed that Turkish SMEs' financial, marketing, and manufacturing performance increases with innovation. Sharukat et al. (2013) found comparable results for Pakistani SMEs. Olughor (2015) says technology and marketing innovations drive financial success. Financial and commercial success depends on technology and marketing innovations, argue Salim and Sulaiman (2011). Innovation increases market share, productivity, and efficiency, say Shefer and Frenkel (2005). The research also indicated that organisational innovation indirectly impacts Indian SMEs' production, marketing, and finances. The model shows organisational innovation helps Indian SMEs. Because it prepares for future developments. Successful organisational innovation boosts production, marketing, and financial performance for Indian SMEs.

The research studied how different forms of innovation disclose Indian manufacturing SMEs' performance characteristics. Diverse innovations help SMEs, according to research. SMEs react differently to various innovations. Organisational innovation boosts SME product, process, and marketing innovations. The data show that contemporary administrative systems boost product and marketing strategies. Manufacturing SMEs' production, marketing, and finances are also affected by innovation. Therefore, companies with innovation-boosting resources may raise production, marketing, and finances. Thus, this study suggests that Indian small and medium-sized manufacturing businesses' innovation performance directly affects production, marketing, and financial results. Innovation cuts costs, introduces new goods, and generates new market segments, making SMEs more profitable and competitive. The conceptual model and empirical data suggest that SMEs should promote administrative innovation for good organisational performance. This kind of innovation explains many SMEs' innovation performance and indirectly influences their financial, marketing, and production.

The study includes limitations that enable more research. The study only covered manufacturers, therefore service firms may not benefit. This study advises studying innovation patterns and their effects on service sector performance, since they may vary. Cross-sectional research is done because data were gathered once. Time is neglected. Thus, future study on innovation adoption may explore the phenomenon throughout time.

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STRATEGIC INTEGRATION OF CORPORATE SUSTAINABILITY IN BUSINESS OPERATIONS: IMPLICATIONS FOR FINANCIAL PERFORMANCE

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ABSTRACT

The present study aims to understand the performance of Indian firms on ESG practices and how they impact on financial performance using regression analysis. Further this study explores into the causality relationship between ESG and financial performance in the Indian context through the Granger Causality Test. In this study, both ESG performance (SP) and financial performance (FP) have been used interchangeably as dependent and independent variables, means that Indian firms having good financial performance may not necessarily have high ESG performance compared to those with lower financial performance. On the other hand, the reverse effect of ESG on financial performance of the firm showed no significant relationship with any of the measures. Our general findings indicate a lack of causality relationship among most of the ESG-FP factors in one or the other direction. The findings suggest that the ESG-FP relationship is insignificant for Indian firms when FP is measured using accounting-based. In India, investments to increase sustainable performance have been happening rampantly only after the introduction of the BRR framework in 2015 since the time of the study is extremely close to this time period, it takes some time for the firms to recover from the decrease in financial performance or no impact at all. This finding seems to be closer for an explanation of the insignificant relationship of ESG-FP in the Indian context.

Key Words: *Environmental, Social and Governance (ESG), Financial Performance, Business Responsibility Report (BRR), Social Performance (SP)*

INTRODUCTION

Business is one of the most notable social inventions (Jensen & Meckling, 1976) of the modern world, consisting of firms that constitute and emerge from the society. As the world continues to evolve, so the complications of conducting a business that multiple. Business today faces high sustainability compliance pressures from stakeholders both internal and external. This has forced them to adopt suitable practices to avoid backlash from customers and the general public. This has redefined the role of the firms as extremely vital beacons for the growth of sustainable business practice and sustainable development at large. Corporations globally are beginning to realize that conducting business merely for profits is the motive of a bygone era and are beginning to understand the multidimensional roles they are required to play. In other words, firms are understanding that many things that were ignored before for success are becoming strategic but for this sustainability is the cost. The various activities of the firms have caused a strain on the eco-system and the society at large like emission of greenhouse gases, production of solid waste and other toxic gases. All of these activities have affected the biodiversity directly or indirectly accounting for a huge amount of societal cost for the firms. And it also extends to affecting the environment through industrial accidents like oil spills and factory explosions. The environmental damage hence occurred cause a huge concern for the insurance firms as they are highly focusing on climate change policies. Secondly the reason why business play a vital role in sustainable development is due to the increased dependence on the private companies as generators of wealth and globalization developments.

The term sustainability has gained a stronger and a comprehensive definition due to the circumstances of rising threats caused due to climate change which now-a-days has become a vital cost of economic development. The entire setting has since then evolved and has become more complicated but also broader in definition and scope. This has also given rise to the idea of a new philosophy. Sustainability as a concept is grounded in creating a balance between the principles of integrity (environment), equity (society) and prosperity (economy) (Bansal, 2005), this has been later identified as the Triple bottom Line (TBL) (Elkington, 2011). Due to this we are limiting the study to the ESG factors as a proxy for sustainability. However, business have always been blamed for pursuing sustainability practices as they are being driven for self-interest of the firm than the society at large which is the goal. As regulatory pressures increase and the pressure from stakeholders' firms is now being forced to adapt to ESG practices in the operations of their business and this involves a cost both to implement and to adapt to rising demands of sustainability

REVIEW OF LITERATURE

The main aim of this study is to focus on relationship between ESG factors and financial performance of Indian companies. This section discusses various literatures available in this field.

ESG AND FINANCIAL PERFORMANCE

Good ESG performance can improve a company's finance and taking ESG into consideration for risk management can have a positive outcome for investors, management, and the government (Zhao, et al., 2018). The largest previous review study analysed a fraction of existing primary studies, making findings difficult to generalize. Thus, knowledge on the financial effects of ESG criteria remains fragmented (**Friede, Busch, & Bassen, 2015**). Combined score of ESG affected WACC positively while all other ESG factors had no significant relationship with firm performance (**Atan R., Alam, Said, & Zamri, 2018**). Recent study showed ESG performance has a significant influence on financial performance measured by both accounting and market-based measures (**Dalal & Thaker, 2019**). adopting sustainable practices to enhance the long-term viability of the shareholders wealth as the financial performance of a firm has direct implications on them. Another study ESG practices have contributed to **FII inflows** by exploring relationship between the ESG INDEX and FII in India (Chopra, 2016) Foreign Institutional Investors (FII) are realising ESG factors to be a business risk thereby altering their risk tolerance while expecting financial returns both in the long and short run and also that stringent compliance with ESG rules will bring in desired levels of FII inflows. ESG issues occur due to the use of natural resources that are not in line with production activities that have an impact on environmental pollution, bribery and corruption, business ethics, etc. The magnitude of the influence of Enterprise Risk Management (ERM) on financial performance and firm value is expected to increase with the extent of ESG performance. (**Chairani & Sirenger, 2021**). The creditworthiness of a firm plays an important role in the financial performance of the firms as it gives more confidence for the lenders to lend money for a firm thereby increasing availability of debt capital. (**Bhattacharya & Sharma, 2019**)

ESG factors add value to the performance when uniquely priced (**Newell & Lee, 2012**). After the financial crisis of 2007-2008, the trust of the people in the financial industry has declined while the systematic risk has increased. (**Laeven, Igan, Classens, & Dell' Ariccia, 2010**). They investigated the conflict between financial firms looking to satisfy their shareholder in relation to accordance to agency theory on one side (**Jensen & Mecking, 1976**) and a large group of stakeholders under the stakeholder theory on the other side (Freeman, 1984) theoretical framework that shows how stakeholder theory has forced managers to be more holistic and adopt to performance metrics beyond

financial. The result concluded having with having both positive and negative impact of ESG on financial performance.

Looking at stakeholders as more than just shareholder, which is the case in free markets, has led to business adopting to more sustainable dimensions in their operations and has pushed firms to adopt “triple bottom line” practices (**Bodhanwala & Bodhanwala, 2018**). The findings concluded that business that pursue remarkable sustainable development strategies have higher profitability and relatively low gearing level proving why Indian companies must pursue sustainable practices and strategies in policy decisions as they have a positive and significant impact on the firm’s profitability in the long run and thereby supports the stakeholder theory. It suggests that business responsibility reporting should be made mandatory and that businesses which reap economical goal with societal benefits should be incentivized by regulators.

The resource-based perspective of firms suggests that firms which publish financial and non-financial information gain superior performance (**Buallay, Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector, 2019**). These resources help then gain sustainable competitive advantage by developing capabilities and competencies. (**Gaur, Vasudevan, & Gaur, 2011**). According to the anticipation theory by (**Porter, 1991**), he assumes that sustainable companies benefit from two advantages, first reduced cost with respect to future regulation cost and second, firms that give priority to regulation that to competitors become leaders thereby increasing their wealth and its stakeholders. On the negative side of ESG and firm’s performance, Friedman (**Friedman, 1962**) states that the sole purpose of a firm is to maximize its shareholders wealth and any other non-financial objectives will reduce its performance and this was also supported by (**Mackey, Mackey, & Barney, 2007**) and (**Zivin & Small, 2005**) where they argue that sustainable policy is for non-profit organizations and not firms.

RESEARCH PROBLEM

ESG practices by the corporates has been receiving greater attention worldwide. Adopting sustainable practices to enhance the long-term viability of the shareholders wealth as the financial performance of a firm has direct implications on them (**Dalal & Thaker, 2019**). Investors’ attention on companies’ practices on ESG factors getting familiar. This study aims to fill the gap lack of relevant literature that explores the relationship between social performance of the firm and its impact on financial efficiencies in the Indian context as much of the prior study has been conducted in developed countries. This research is conducted in an extended manner using the latest data available where the current study to understand the performance of Indian firms in their ESG practices and how they impact on financial performance.

Methodology

In this study, both ESG performance (SP) and financial performance (FP) have been used interchangeably as dependent and independent variables according to check the the significant relationship. For models I to V, ESG is the independent variable while FP is the dependent available and it is vice versa for models VI to X.

As the ESG, practices are both qualitative and quantitative in nature, which includes reputation rating, other externally visible measures, disclosures and other perpetual measures (Grewatsch & Kliendienst, 2017) it often becomes hard for researchers to arrive at a conclusive way to measure while conducting research. To tackle this difficulty, in this research the external scores published

by MSCI has been used as a proxy for measuring the ESG performance of the companies. MSCI ratings considers three major areas while rating the companies. These include company related ESG information (Voluntary corporate disclosures, corporate governance disclosures, disclosures not aligned with ESG frameworks), information from other sources (product risk data, macro risk data, regulatory agency data, events data) and company characteristics (product segment data, geographic segment data, other company characteristics). Measuring the firms, ESG practices using ESG scores published externally from other sources are consistent with many studies in the same area (Rahi, Akter, & Johansson, Do sustainability practices influence financial performance? Evidence from the Nordic financial industry, 2021)(Aggarwal, 2013)(Sung Kim & Oh, 2019)

HYPOTHESES:

H1: There is no significant relationship between Environmental, Social and Governance and Financial performance of companies.

H2: ESG does not have certain degree of impact on FP.

H3: FP does not have certain degree of impact on ESG.

Data Collection:

The study uses a sample data of the top 100 Indian firms based on the market capitalization listed in the Bombay Stock Exchange as on 13th April 2022 spanning across various industries. This information was collected from the official site of BSE. ESG ratings were collected from MSCI, which measures a company's resilience to long term industry material environmental, social and governance risks with the ratings ranging from leader (AAA, AA), average (A, BBB, BB) to laggard (B, CCC) with over 13 years of live track history for over 8,500 companies globally. (MSCI, 2022). The financial and firm specific information was collected from ACE Analyzer which is managed by Ace Equity that provides financial information for 40,000 Indian companies, including both listed and unlisted companies. This database consists all the information regarding Indian companies that are compiled from annual reports, audited statements and filed reports to authorities.

The sample data was collected for 5 years (2017-2021) which included 500 firm-year wise observations as MSCI provided consistent ESG ratings only for these years. The mentioned period was chosen to study the recent updates in the ESG practices of Indian firms. After compilations, missing observations was found for 1 company as it had only been recently listed and the required information was not available for both ESG ratings and financial performance and hence this had to be removed from the sample. After this the total sample aggregated to an unbalanced panel data (5 periods, 99 cross sections) of 495 firm-year observations. Panel data has been used as it helps ensure that the variations that has happened across various time periods and cross sections using a constant or random variable are captured.

DATA ANALYSIS:

All the statistical analysis were performed using the EViews 12 software. Descriptive analysis was conducted for all the variables included in the research. To test the first hypothesis, correlation analysis was performed for all the variables to understand the presence of a relationship.

As regression analysis is performed to test the second and third hypotheses, the data had to be tested for multicollinearity and heteroskedasticity as these are the two major problems in a regression analysis, which led to inefficient results (Gujarati, Porter, & Gunasekar, 1995). Therefore, to address these problems, Variance Inflation Factor (VIF) and Breusch-Pagan-Godfrey tests were con-

ducted to check multicollinearity and heteroskedasticity respectively. Another assumption of the regression analysis is the stationarity of the data, which again was tested using three tests - Levin, Lin & Chu, Im, Pasaran and Shin W-Stat and ADF-Fisher Chi-square. Then the results were obtained using panel regression, consists of three models: Pooled ordinary least square, Fixed Effect model and Random effect model. To choose the best regression model tests were run to reach a conclusion: Breusch-Pagan LM test (pooled vs RE) and Hausman Test (RE vs FE). The p-value for the LM test was less than the significance level (5%) hence the null hypothesis for the (POLS is suitable) had to be rejected. Following this the Hausman test was run, and the p-value for the test was greater than the significance level of 5% leading to the acceptance of the null hypothesis (REM is appropriate). Hence the REM estimator was used for the panel regression of all the models and this has also been used in previous research (Sekhon & Kathuria, 2019)

Granger Causality test has also been used to confirm the causality relationship between ESG and FP. GC has often been used to validate the causal relationship between two variables (Babu, 2018) (Malhotra, 2019) and it has also been used to analyse for panel data (Milind & Rangarajan, 2020) (Konya, 2006)(Cheon & An, 2017). Various steps in the GC test were adopted i.e., checking for stationarity (ADF test), checking for cointegration among variables (Johansen Cointegration test), estimating a VAR (Vector Auto Regression) based on cointegration tests, identifying the optimal lag length based on the Akaike Information Criteria (AIC) and using the optimal lag length to run the GC test for the pair of variables.

ESTIMATION MODELS

The following estimation models have been used in the research to test the hypothesis.

For H2,

Model I-V

$$FP_{ijt} = C + \beta_1 * ESG_{jt} + \beta_2 * \text{Firm leverage}_{jt} + \beta_3 * \text{Unsystematic Risk}_{jt} + \beta_4 * \text{Firm size}_{jt} + \varepsilon_{jt}$$

For H3,

Model VI-X,

$$ESG_{jt} = C + \beta_1 * FP_{ijt} + \beta_2 * \text{Firm leverage}_{jt} + \beta_3 * \text{Unsystematic Risk}_{jt} + \beta_4 * \text{Firm size}_{jt} + \varepsilon_{jt}$$

Models for the GC test

The following models have been adopted to check the bidirectional causal relationship between ESG and FP.

$$FP_{ijt} = C + \sum_{l=1}^1 \alpha_l FP_{ij}(t-l) + \sum_{l=1}^1 \gamma_l ESG_j(t-l) + \varepsilon_{jt}$$

$$ESG_{jt} = C + \sum_{l=1}^1 \alpha_l ESG_j(t-l) + \sum_{l=1}^1 \gamma_l FP_{ij}(t-l) + \varepsilon_{jt}$$

Here $i=1,2,3,4$ and 5 so that FP_1 is ROA, FP_2 is ROE, FP_3 is ROCE, FP_4 is EPS and FP_5 is NPM. FP_{ijt} represent the FP for the firm j in the time period t . ESG_{jt} measures the ESG of the firm j for the time t . C is the intercept and l indicates the lag orders. $\text{Firm leverage}_{jt}$, $\text{Unsystematic Risk}_{jt}$ and Firm size_{jt} represents the firm advantage, unsystematic risk and firm size for the firm j in the time period t respectively. ε_{jt} is the error term.

DATA ANALYSIS

DESCRIPTIVE STATISTICS:

	ESG	ROA	ROE	ROCE	EPS	NPM	FIRM SIZE	UNSYSTEMATIC RISK	FIRM LEVERAGE
MEAN	3.5616	4.84205	15.8142	20.258	-285.64	25.49527	127331	1.41196	1.531417
MEDIAN	4	6.3787	16.65	16.9237	18.305	12.794	20171.9	0.20099	0.14
MAXIMUM	6.66	72.0198	105.755	147.88	753.094	3450.768	4534430	551.724	69.82
MINIMUM	1	-81.2	-198.03	-81.2	-81706	-497.507	393.4	0	0
STD. DEV	1.33881	11.5204	22.0492	11.5204	4196.23	178.8274	421074	24.7866	4.2478
SKEWNESS	-0.0117	-0.8734	-3.7973	-0.8735	-16.254	15.34456	7.0088	22.17603	9.368075
KURTOSIS	2.13724	18.4056	39.4897	18.4056	296.743	279.4531	60.5454	492.8518	138.2628
JARQUE-BERA	15.3635	4957.92	28649.8	4957.92	1801420	1595718	72351.8	498963	384595.9
PROBABILITY	0.00046	0	0	0	0	0	0	0	0
SUM	1763	4376.82	7828.02	4376.82	-141391	12620.16	63.2905	689.922	758.0512
SUM SQ. DEV	951.871	65563.9	240167	65563.9	8.7	15797747	8.76	303503	8913.695
OBSERVATIONS	495	495	495	495	495	495	495	495	495

Table 1: Results of Descriptive Analysis

	Firm Leverage	Unsystematic Risk	EPS	ESG	Firm size	NPM	ROA	ROCE	ROE
Firm Leverage	-								
Unsystematic Risk	-0.008986	-							
EPS	0.079632	-0.000875	-						
ESG	0.004184	0.046389	-0.01923	-					
Firm size	0.493484	-0.00357	0.100475	0.053093	-				
NPM	-0.034786	-0.001186	0.000641	-0.1378	-0.02196	-			
ROA	-0.264159	-0.020826	-0.02086	0.095379	-0.17022	0.423204	-		
ROCE	0.00449	-0.002425	-0.00198	-0.04988	-0.01399	-0.00374	-0.02279	-	
ROE	-0.413672	0.011	0.011058	0.115604	-0.09009	0.312395	0.817488	-0.00936	-

Table 2: Results of Correlation Analysis

CORRELATION ANALYSIS

The correlation analysis presented in Table 4.2. ESG factor shows a negative relationship with NPM, EPS and ROCE. It indicates that lower the profitability the higher will be the ESG rating, higher expenditure is required to get a higher ESG rating but the relationship is not strong as it has a lower value (-0.1378). The negative relationship with EPS indicates that for the earning to be higher to shareholders the firm will have to compromise on its ESG rating indicates lower social performance. Similarly, ROCE also has a negative relationship with ESG, the efficiency of use of the capital employed in the business does not increase the ESG score of the firm but rather decreases it.

On the other hand, ESG has a positive relationship with ROA and ROE, these variables will lead to increase in the ESG rating of the firm and vice versa. Therefore, the firm must focus on increasing the efficiency of the assets of the firm and the use of the shareholders' funds as they will directly lead to an increase in the ESG rating of the firm also it must be noted that a decrease in any of these variables will have a negative impact on the ESG rating as ESG rating and ROA and ROE move in the same direction due to their positive relationship.

While examining the relationship of the control variables with ESG score, all the variables have a positive relationship but they are negligible, may not be really relationship with the ESG scores. In addition, while seeing the relationship between the control variables with the financial performance indicators, there are mixed results with both negative and positive relationship and some being not very significant value at times even indicating a lack of relationship.

From the analysis, the ESG factors and financial performance indicators have a both positive and negative relationship based on the indicator being considered. This has been the case with many other studies conducted (Baird, Geylani, & Roberts, 2012) (Rodrigo, Duran, & Arenas, 2016). In the case of the Indian context, the varied impacts can be caused due to the fact that the firms have been only recently adapting ESG practices and it is not integrated enough to have a uniform relationship with all the financial performance indicators. This has led to rejecting the null hypothesis of H1, and concluding that there is relationship between ESG and financial performance.

Table 3: Regression analysis- Impact of ESG on FP
Impact of ESG on Financial Performance:

Observations	495	495	495	495	495
Periods	5	5	5	5	5
Cross Sections	99	99	99	99	99
Dependent variables	Model I (ROA)	Model II (ROE)	Model III (ROCE)	Model IV (EPS)	Model V (NPM)
Independent variable	ESG				
Labels					
constant	0	0	0.1606	0.5951	0.1258
FIRM LEVERAGE	0	0	0.7909	0.4481	0.6953

UNSYSTEMATIC RISK	0.1771	0.7348	0.9992	0.9844	0.9844
ESG	0.7717	0.6765	0.2746	0.5955	0.3699
FIRM SIZE	0.2683	0.0325	0.731	0.1099	0.9708
R SQUARE	0.043056	0.38332	0.002811	0.011853	0.001999
ADJUSTED R SQUARE	0.035244	0.378286	-0.005329	0.003786	-0.006148
F-STATISTIC	5.511612	76.14451	0.345332	1.469407	0.245386
P-VALUE (F-STATISTIC)	0.00024	0	0.847283	0.210277	0.912429
DW STAT	1.989329	1.852349	1.2592	2.527006	1.362407

The panel regression was used to check the significant relationship between ESG and financial performance. The financial performance of the company is not dependent on the social performance of the firm. Whereas firm leverage has significant impact on the financial indicators ROA and ROE and this is positive while there is an insignificant relationship with ROCE, EPS and NPM. This shows that a change in firm leverage will affect ROA and ROE.

At the same time, the firm size has a significant relationship with ROE at 5% level of significance, as the p-value is 0.0325 while it has insignificant relationship with all other dependent variables of the various models. At the same time unsystematic risk also has an insignificant relationship with all the financial performance indicators. The R-square value to assess if the models are a good fit for the data, the various R-square values of the models are as follows. Generally, R-square explains how well the regression model fits the observed data. Here a higher percentage indicates a good fit of the model. In this case Model II has the highest percentage of 38% indicating a better fit of the model for the data while Model I & IV have a percentage lower than 5%. Whereas Model III & V has insignificant percentages that are less than 1. It must be noted that here the R-square value does not indicate the correctness of the regression model deployed but only measures the proportion of variance in the dependent variable that is caused due to the independent variable.

From the above analysis, it is concluded that though Model I, II & IV have significant R-square value and there is goodness of fit of the model for the data used, but it must be noted that there is no significant relationship of ESG on financial performance variables, but only control variables firm leverage and size have a significant relationship with ROA ROE & ROE respectively. Hence, the null hypothesis of H2, which states that ESG does not have a positive impact on financial perfor-

mance is accepted and the alternate hypothesis is rejected.

1. DISCUSSIONS

The overall results of the study show that ESG-FP relationship is not consistent and significant with most of the measures of financial performance measures used in this study such as ROA, ROE, ROCE, EPS and NPM. The results of the regression showed that the combined score of ESG was impacted by one financial measure that is ROCE and all other dimensions have no impact on ESG performance. Indian firms having sound financial performance may not necessarily have high ESG performance compared to those with lower financial performance. Even if there is an impact then it will be caused due to a higher ROCE. On the other hand, the reverse effect of ESG on financial performance of the firm shows no significant relationship with any of the variables. The results are aligned with the classical theory that expenditure for sustainable development even though affect the financial performance, but is not enough to cause a significance influence. The outcome of the GC tests reveals that there is no causal relationship between ESG and FP and vice versa. The results help conclude that firms with higher ESG performance should not expect their FP to grow as compared to those with a lower score. The findings are similar to previous studies conducted where the bidirectional relationship between ESG-FP which showed there is no bidirectional relational relationship (Milind & Rangarajan, 2020) or (Tuppura, Arminen, Patari, & Janutunen, 2016) where it suggested that the bidirectional relationship depends based on the financial performance indicator used in the study.

The results of the study are in accordance with that of previous ones in the same area. (Atan R. , Alam, Said, & Zamri, 2018) conducted a study in the Malaysian context to investigate the impact of ESG on financial performance showed that there is no change in the performance of firms having higher or lower ESG scores. Similarly, a study by (Lopez, Garcia , & Rodriguez, 2007) found that even though firms incurred expenditures for social performance they end up bringing a financial disadvantage at least in the short run. Another study conducted in Italy (Soana, 2011) that couldn't find any significant relationship between ESG and FP when ESG was measured based on ethical ratings and FP using financial ratios whereas a multi-geographical study conducted by (Ionescu, Firoiu, Vilag, & Pirvu, 2019) reported a weak relationship between ESG and financial performance and this was related to differences in findings to factors like FP indices, ESG measures and argued that the relationship between ESG and FP is not something to generalized. (Duque-Grisales & Aguilera-Caracuel, 2019) reported a negative relation of CSP measured as E, S, and G independently with CSP for multilatinas.

In Indian context, (Tyagi & Sharma, 2013) argued that if there were to be any relationship for ESG and FP then that relationship will be negative and he showed a neutral though modest negative relationship. Along with this for the ROA model there existed a moderate negative slope for the contribution of ESG for their relationship. Further (Aggarwal, 2013) in his study failed to establish a positive relationship between CSR and FP. By using only social models, (Rodrigo, Duran , & Arenas, 2016) showed a negative relationship between CSP and future financial performance where again the bidirectional causality relationship was also negative. An unbiased connection was proposed while utilizing composite and purely ecological model of CSP. (O'Higgins & Thevissen, 2017) observed different parts of CSP related adversely to CFP where CSP was essentially founded on social aspects and henceforth recommending that certain social speculations don't pay for specific industries

2. CONCLUSION

This paper presents a thorough investigation of the CSP-CFP relationship in the case of top 100 Indian firms. ESG factors have been considered at an aggregate level using the scores published by a third party. FP has been assessed using only accounting measures which are ROA, ROE, ROCE, EPS and NPM. The study used the Random effect panel regression technique to analyse the relationship in light of the result of the Hausman test and Granger Causality for surveying the bidirectional causality between ESG-FP factors. Our general findings indicate a lack of causality relationship among most of the ESG-FP factors in one or the other direction. The findings suggest that the ESG-FP relationship is insignificant for Indian firms when FP is measured using accounting-based. All control variables have insignificant relationship in the ESG-FP except for firm size and firm leverage with ROA and ROE and ROE respectively, and that implies that Indian firms don't get the financial advantages for higher performance in sustainability. Our discoveries with generally insignificant outcomes for this relationship likewise exhibits that organizations in different places of the social performance scale will perform similarly regarding FP. Comparable findings found for the opposite course, where the effect of CFP on CSP is seen as insignificant for most of cases except for ROC on ESG. This indicates that the utilization of capital deployed in the operations of the firm has a bearing on the ESG score. Also, the firm size has a significant relationship with ESG where it is a dependent variable and ROA, ROE and NPM are independent variables. This study showed on the reverse side of the causal relationship that organizations with higher CFP are not really experiencing high CSP, rather an expansion in CFP might prompt no changes in social performance rankings.

The outcomes are in accordance with prior discoveries for Indian firms as shrouded in discussion section. There might be various explanations behind the equivalent. In the first place, Indian firms are not uncovering all sustainability endeavours successfully and subsequently not being represented by the rating organizations. Second explanation might be that Indian firms might be burning through cash in explicit ESG aspects (Milind & Rangarajan, 2020) which are not part of the parameters adapted by third party scoring agencies. Likewise, there maybe be a misalignment between market assumptions for sustainable practices inclusion and Indian firms' endeavours on maintaining different aspects of the same. The discoveries of this study are not lined up with numerous traditional research done in developed nations that help the positive heading of the ESG-FP relationship yet is lined up with many examinations that support the unbiased or negative course of this relationship.

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“A STUDY ON THE INFLUENCE OF BRAND LOYALTY ON CONSUMER PURCHASE BEHAVIOR OF FMCG PRODUCTS IN MALABAR REGION OF KERALA, INDIA”

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INTRODUCTION

The study focuses on Fast Moving Consuming Goods (FMCG) Industry. Fast-Moving Consumer Goods (FMCG), also known as Consumer-Packaged Goods (CPG), are products that are in high demand, sold quickly, and are reasonably priced. These items are considered “Fast-Moving” because they are quick to leave the shelves of a store or supermarket because consumers use them on a regular basis. FMCG products account for a significant portion of every household’s monthly budget. The amount of money flowing through the economy as a result of FMCG products is significantly large, owing to the large number of people who buy such products. Because of low entry levels, a well-established distribution network, low operating costs, and lower per capita consumption, this sector is becoming increasingly profitable but the presence of multinational corporations, domestic corporations, and an unorganized sector, the industry is also extremely competitive.

From the FMCG sector Personal Care Products is studied. The personal Care product is divided into three types: Skin Care Products, Hair Care Products and Oral Care Products. Each of these segments exhibits its unique trends and growth patterns. The hair care market can be segmented into hair oils, shampoos, hair colorants & conditioners, and hair gels. The skin care includes all the skin and beauty related products. The oral care market can be segmented into toothpaste, tooth powder and toothbrushes. The major variables considered for the study include Demographic variables (Age, Gender, Occupation, Income), Brand Loyalty and consumer attitudes.

RELEVANCE OF THE STUDY

FMCG sector in India is fourth largest sector in the Indian economy. From 2011-2021, the revenue in the FMCG industry in India has been growing at the rate of 21.4%. Household and personal care accounts for 50% of sales in the industry. It provided employment to around 3 million people accounting for approximately 5% of the total factory employment in India (IBEF, 2023). Brand Loyalty play a major role in the sales of FMCG products, it helps a great deal in connecting consumers with various brands. Indian consumers in this era of globalization are bombarded with hundreds and hundreds of national and international brands with newer features and better quality and hence there are several factors which influence the consumer decision making towards the purchase of certain brands of products. So, it is important to create a unique image of a brand to influence their purchase decision

Kerala plays a major role in FMCG market. Of the INR 4 lakh crore consumer FMCG market in India, about 30000 crore is from Kerala. Realizing this Kerala Government initiated steps to set up an FMCG cluster in Palakkad district making it one of its kind initiatives in India. This proposed cluster looks at a 35% economic growth in the region by 2027. This will boost the FMCG industry

especially in Malabar region (Kumar, 2021). Malabar region of Kerala is among the most densely populated regions of India and Malabar region has the highest number of foreign emigrants in Kerala (Centre for Development Studies, 2019), these factors make the Malabar population traditionally more familiar with international as well as domestic FMCG brands. The demographic variables including Age, Gender, Income etc. will influence the attitude towards advertisements (Malik, 2014).

Objectives of the Study

- To measure the frequency of the purchase of FMCG products
- To understand the relationship between Brand Loyalty and the frequency of the purchase of FMCG products.

Hypothesis

- H 1 - There is a significant relationship between relationship between Brand Loyalty and frequency of Consumer Purchase Behavior

REVIEW OF LITERATURE

A study by B.V.N.G. Chandra Sekhar (2012) concluded that the rural market is predominantly influenced by robust country shops, which significantly impact the sales of diverse products in rural areas. Companies are making efforts to stimulate growth and expand their presence in these rural areas. In 2017 Ahmed Al Moolla conducted a study named A Model to Measure the Brand Loyalty for Fast Moving Consumer Goods and created a model to measure Brand Loyalty. Managers can utilize the model to assess the most crucial influences for their products or services, enabling them to pinpoint areas where brand loyalty may be lacking. This insight empowers them to make informed decisions and implement strategies to enhance brand loyalty among consumers. A study by C. Kanimozhi et.al (2019) indicates that the factors that enhance the scope of rural marketing are electronic media, efficient transportation system, changing consumption patterns and strategic marketing policies. The rural consumer is adapting his consumption habits to the changing environment. R. Vijayalakshmi et.al (2020) conducted the on brand loyalty of Nestle brand in fast moving consumer goods and reached at a conclusion that demographic variables influenced brand loyalty of nestle brand in FMCGs. The study suggests that purchasing the brand is a sign of loyalty. The findings imply that marketers should create brand loyalty as a key attribute.

The study by Nurul Aini et.al (2022) conclude that the brand should match and align with the values of consumers so that this fit will increase the appeal of the brand and make customers loyal to the brand. Also, Customer brand identification can also mediate the relationship between value congruence and brand loyalty. Suraj Verma et.al (2023) conducted a study on Consumer Decision-Making Rules for FMCG Products—Study of Rural in North India and reached at a conclusion that Consumers' decision-making rules are influenced by rural consumer's educational background and the number of family members under the age of 18 years.

METHODOLOGY

Type of Population

The consumers who purchase fast moving consumer goods are treated as the population of the study. Malabar region of Kerala is the geographical area of the present study. Malabar region of Kerala includes the following districts (Dept. of Tourism, Kerala Govt.): Thrissur, Palakkad, Malappuram, Kozhikode, Kannur, Kasargode, Wayanad

Sampling Unit

Sampling unit consist of an individual consumer who purchase fast moving consumer goods are treated as the population of the study. The sample stands as a representation which covers all the seven districts of Kerala.

Sampling Frame

The sample frame used for this study is the Malabar region of Kerala.

Size of sample

Based on the research articles which was reviewed for the study, the sample size of the study is 210.

Timeline

Two months is the duration in which the study is conducted. April 2023- May 2023 is the period of the study.

Sampling Procedure

The sample is selected through non-probability sampling. And the type of non-probability sampling used for the study is Convenience sampling.

Research Instrument

The research is conducted primarily with the help of a questionnaire and circulated it through online (Google Forms).

- Reliability test of questionnaire

Table 3.1: Reliability test of the questionnaire

Variable	N	Chronbach's Alpha
Brand Loyalty	12	0.943

Since the Chronbach's Alpha are point 0.943 the scales of the variable is reliable.

Data Analysis Tools

The data analysis tools used for the study include:

- Percentage Analysis: Percentage are used in making comparison between two or more series of data. A percentage is used to determine relationship between the series.
- Charts and Graphs: Pictorial representation of the data. The graphs used include bar charts, Pie chart and line graph.
- Descriptive Statistics: Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data. Some of the descriptive measures used in the study include Mean, Frequency and Standard Deviation.
- Pearson's Correlation: It is the test statistics that measures the statistical relationship, or association, between two continuous variables. It is known as the best method of measuring the association between variables of interest because it is based on the method of covariance. It gives information about the magnitude of the association, or correlation, as well as the direction of the relationship.
- Linear Regression: Linear regression analysis is used to predict the value of a variable based on the value of another variable. The variable you want to predict is called the dependent variable. The variable you are using to predict the other the variable value is called the independent variable.

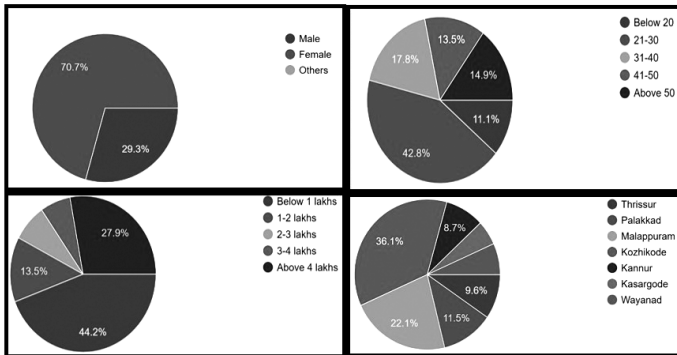
Data Analysis

Demographic details of the respondents

Table 4.1: Table Showing Demographic details of the respondents

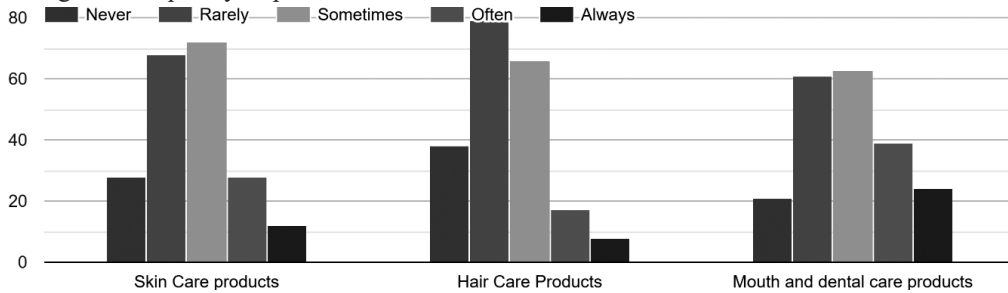
Characters	Measuring Group	Frequency	Percentage (%)
Gender	Male	62	30
	Female	148	70
	Others	0	0
	Total	210	100
District	Thrissur	20	10
	Palakkad	24	11
	Malappuram	46	22
	Kozhikode	76	36
	Kannur	18	9
	Kasargod	11	5
	Wayanad	15	7
	Total	210	100
Age	Below 20	23	11
	21-30	90	43
	31-40	38	18
	41-50	28	13
	Above 50	31	15
	Total	210	100
Income (annual)	Below 1 lakh	93	44
	1-2 lakhs	28	13
	2-3 lakhs	16	8
	3-4 lakhs	14	7
	Above 4 lakhs	59	28
	Total	210	100
Occupation	Educational field	70	33
	Medical	6	3
	Management	6	3
	Student	54	26
	Clerical	11	5
	Retired	16	8
	IT	9	4
	Technical &Engineering	12	6
	Finance & Banking	2	1
	Self Employed	2	1
	Unemployed	22	10
	Total	210	100

Fig 4.1: Pie Charts showing demographic details of respondent



LEVEL OF CONSUMER PURCHASE BEHAVIOR OF FMCG PRODUCTS

Fig 4.2: Frequency of purchase of Personal Care Products



Each of the three categories of personal care products has different uses and consumers purchase them at varying frequencies. In the case of skincare products most of the respondents purchase them 'sometimes' (34.28%) followed by 'rarely' (32.85%). Skincare products in general are mostly purchased less often by the respondents. When it comes to haircare products, most of the respondents purchase them 'rarely' (37.61%) followed by 'sometimes' (31.9%), this segment has the largest share of respondents who 'never' purchase products (18.09%). Mouth and dental care products are mostly purchased 'sometimes' (30.47%) and 'rarely' (29.04%), this segment has the least number of responses in the 'never' category (10%) and the most number of responses in the 'often' (18.57%) and 'always' (11.9%) frequencies.

Fig 4.3: Place of purchase of Personal Care products



In general, the respondents tend to purchase personal care products from supermarkets, 39.04%, 49.52%, and 44.76% of respondents in each category respectively skincare, haircare, and mouth and dental care products responded that they purchase these products from supermarkets. Retail stores are the least preferred place of purchase for personal products except for mouth and dental care products where online shopping is the least preferred (4.28%). Medical store has its largest share of purchases in the mouth and dental care products and online shopping has its largest share in skin care products.

Relationship between Brand Loyalty and consumer purchase behavior

Hypothesis 1: Relationship between brand loyalty and frequency of purchase of skin care products

H0: There is no significant relationship between brand loyalty and frequency of purchase of skin care products

H1: There is a significant relationship between brand loyalty and frequency of purchase of skincare products

Table 4.5: Correlation between brand loyalty and frequency of purchase of skin care products

		Brand Loyalty	Frequency of purchase
Brand Loyalty	Pearson Correlation	1	.312**
	Sig. (2-tailed)		<.001
	N	210	210
Frequency of purchase	Pearson Correlation	.312**	1
	Sig. (2-tailed)	<.001	
	N	210	210
**. Correlation is significant at the 0.01 level (2-tailed).			

Since the Pearson Correlation Coefficient is 0.312, there exist a positive relationship between brand loyalty and frequency of purchase of skin care products. Hence accept alternate hypothesis

LINEAR REGRESSION ANALYSIS OF BRAND LOYALTY AND FREQUENCY OF THE PURCHASE OF SKIN CARE PRODUCTS

Table 4.6: Regression model summary of brand loyalty and frequency of purchase of skincare products

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.312 ^a	.098	.093	1.014
a. Predictors: (Constant), Brand Loyalty				

Table 4.7: Coefficients of regression between brand loyalty and frequency of purchase of skin care products

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.488	.257		1.895	.059
	Brand Loyalty	.370	.078	.312	4.744	<.001

a. Dependent Variable: Frequency of Purchase of Skin Care Products

Hypothesis 2: Relationship between Brand Loyalty and frequency of purchase of Hair Care Products

H0: There is no significant relationship between brand loyalty and the frequency of purchase of hair care products

H1: There is a significant relationship between brand loyalty and the frequency of purchase of hair care products

Table 4.8: Correlation between Brand loyalty and Frequency of purchase of hair care products

		Brand loyalty	Frequency of purchase
Brand Loyalty	Pearson Correlation	1	.288**
	Sig. (2-tailed)		<.001
	N	210	210
Frequency of purchase	Pearson Correlation	.288**	1
	Sig. (2-tailed)	<.001	
	N	210	210

** . Correlation is significant at the 0.01 level (2-tailed).

Since the Pearson Correlation Coefficient is 0.288, there exists a positive relationship between brand loyalty and the frequency of purchase of hair care products. Hence the alternative hypothesis is accepted.

LINEAR REGRESSION ANALYSIS OF BRAND LOYALTY AND FREQUENCY OF THE PURCHASE OF HAIR CARE PRODUCTS

Table 4.9: Regression model summary of brand loyalty and frequency of purchase of hair care products

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.288 ^a	.083	.078	.975
a. Predictors: (Constant), Brand Loyalty				

Table 4.10: Coefficients of regression between brand loyalty and frequency of purchase of hair care products

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.397	.247		1.606	.110
	Brand Loyalty	.325	.075	.288	4.335	<.001
a. Dependent Variable: Frequency of purchase of hair care products						

HYPOTHESIS 3: RELATIONSHIP BETWEEN BRAND LOYALTY AND FREQUENCY OF PURCHASE OF MOUTH AND DENTAL CARE PRODUCTS

H₀: There is no significant relationship between brand loyalty and the frequency of purchase of mouth and dental care products

H₁: There is a significant relationship between brand loyalty and the frequency of purchase of mouth and dental care products

Table 4.11: Correlation between Brand loyalty and Frequency of purchase of mouth and dental care products

		Brand Loyalty	Frequency of purchase
Brand Loyalty	Pearson Correlation	1	.192**
	Sig. (2-tailed)		.005
	N	210	210
Frequency of purchase	Pearson Correlation	.192**	1
	Sig. (2-tailed)	.005	
	N	210	210
**. Correlation is significant at the 0.01 level (2-tailed).			

Since the Pearson Correlation Coefficient is 0.192, there exist a positive relationship between brand loyalty and frequency of purchase of mouth and dental care products. Hence the alternative hypothesis is accepted.

LINEAR REGRESSION ANALYSIS OF BRAND LOYALTY AND FREQUENCY OF THE PURCHASE OF MOUTH AND DENTAL CARE PRODUCTS

Table 4.12: Regression model summary of brand loyalty and frequency of purchase of mouth and dental care products

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.192 ^a	.037	.032	1.145
a. Predictors: (Constant), Brand Loyalty				

Table 4.13: Coefficients of regression between brand loyalty and frequency of purchase of mouth and dental care products

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.144	.290		3.940	<.001
	Brand Loyalty	.248	.088	.192	2.823	.005
a. Dependent Variable: Frequency of purchase of mouth and dental care products						

FINDINGS AND CONCLUSION

From the study below findings and conclusions are extracted:

- Maximum number of respondents purchase skin care product ‘Sometimes’, purchase hair care products ‘Rarely’ and purchase mouth and dental care products ‘Sometimes’. So it obtained that the Skin Care and Mouth & Dental Care products are purchased more frequently than Hair Care products (Fig 4.2).
- There is a difference in place of purchase and the products category (Skin, Hair, Mouth & Dental). The highest number of respondents purchase skin care products, hair care products and mouth & dental care products from Supermarkets. So supermarkets are the main place of purchase (Fig 4.3).
- There exists a positive relationship between brand loyalty and the frequency of purchase of skin care products by the application of Pearson’s Correlation Coefficient. The linear regression analysis is done between brand loyalty and frequency of purchase of skin care products and obtained 0.098 as R squared value (Hypothesis 1).
- There exists a positive relationship between brand loyalty and frequency of purchase of hair care products by the application of Pearson’s Correlation Coefficient. The linear regression analysis is done between brand loyalty and frequency of purchase of hair care products and obtained 0.083 as R squared value (Hypothesis 2).
- There exists a positive relationship between brand loyalty and frequency of purchase of mouth

and dental care products by the application of Pearson's Correlation. The linear regression analysis is done between brand loyalty and frequency of purchase of mouth and dental care products and obtained 0.037 as R squared value (Hypothesis 3).

SUGGESTIONS

The study overall analyzes the influence of Brand Loyalty on consumer purchase behavior. From the study some of suggestions can be made. The brand loyalty is directly effecting the frequency of consumer purchasing behavior. So the organization of FMCG sectors must implement best strategies to increase the brand loyalty among the consumers. The loyalty of the consumers towards a particular brand helps the consumers to choose that particular product from a set of products which are competing each other.

It is identified that as a whole large number of consumer prefer to buy the personal care products from supermarkets. So proper shelf place must be acquired by these products in the supermarket. The promotions can also done at these supermarkets to improve the brand loyalty and hence improve the consumer purchase behavior. Also, it is found that the loyal customers are intended to buy the purchase more frequently. So this shows the importance of brand loyalty and its impact on consumer purchase behavior.

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IMPACT OF INFLUENCER MARKETING ON TOURISM

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Abstract

This abstract explores, how influencer marketing has emerged as a powerful tool in the tourism industry, revolutionizing the way destinations are promoted and experienced. This comprehensive analysis explores the multifaceted impact of influencer marketing on tourism, delving into its effects on destination awareness, visitor engagement, and the evolution of traveller behavior. Through a thorough examination of case studies, trends, and statistical data, this study provides valuable insights into the role of influencers in shaping travel decisions, fostering destination sustainability, and influencing visitor perceptions. By analyzing the synergy between influencers, destinations, and their audiences, this research sheds light on the complex dynamics that underpin the evolving landscape of tourism marketing. Furthermore, it assesses the challenges and ethical considerations associated with influencer marketing in the travel sector. This study contributes to a deeper understanding of the far-reaching implications of influencer marketing in tourism and offers recommendations for businesses, destinations, and marketers seeking to harness the full potential of this influential marketing approach.

Keywords: Marketing, Challenges, Barriers, Innovation, Case studies, Success, Educators, Business Leaders, Influencer, Tourist, Landscape, Tourism, Policymakers, Policy, Intervention, Gender, Discriminations.

INTRODUCTION

In recent years, influencer marketing has become a powerful tool for promoting tourism and travel destinations. With the rise of social media platforms, influencers have gained significant influence over their followers, and their recommendations and endorsements can greatly impact the decisions of potential travelers. This has led to a shift in the way tourism businesses and destinations market themselves, as they increasingly collaborate with influencers to reach new audiences and boost their visibility. In this paper, we will explore the impact of influencer marketing on tourism and analyze its effectiveness in attracting tourists and shaping their travel experiences. We will also discuss the challenges and ethical considerations associated with influencer marketing in the tourism industry. Influencer marketing has emerged as a powerful tool for promoting destinations and attracting tourists. With the rise of social media platforms, influencers have become key players in shaping consumer behavior and influencing travel decisions. This paper aims to explore the impact of influencer marketing on tourism, examining how influencers are leveraging their platforms to showcase destinations, drive engagement, and ultimately drive tourism growth. By analyzing the strategies and effectiveness of influencer marketing in the tourism industry, this paper seeks to provide insights into the potential benefits and challenges of this marketing approach for destinations and businesses in the travel sector.

The rise of social media and the influencer culture has significantly impacted the tourism indus-

try. Influencer marketing has become a powerful tool for promoting travel destinations, hotels, and experiences to a wide audience. This form of marketing leverages the influence and reach of popular social media personalities to promote tourism products and services. The impact of influencer marketing on tourism is multifaceted, affecting consumer behavior, destination popularity, and the overall travel industry. This paper aims to explore the impact of influencer marketing on tourism and analyze its implications for the industry as a whole.

Influencer marketing has become a popular strategy in the tourism industry. With the rise of social media platforms, influencers have gained significant followings and have become powerful voices in recommending travel destinations, accommodations, and activities. As a result, tourism businesses have started collaborating with influencers to promote their offerings to a wider audience. This has led to a shift in the way tourism marketing is done, with more emphasis on digital platforms and personalized recommendations. This paper will explore the impact of influencer marketing on tourism, including its benefits and drawbacks, and its effects on consumer behavior and destination marketing.

RESEARCH METHODOLOGY

Research Design:

This research will utilize a mixed-methods approach, combining both qualitative and quantitative methods to gather data. The qualitative component will involve interviews and focus groups with tourism industry professionals, social media influencers, and travelers. The quantitative component will involve surveys and data analysis of social media engagement and travel behavior.

Sampling:

Influencer marketing has emerged as a powerful tool for promoting tourism. With the rise of social media, influencers have become key players in shaping consumer behavior and influencing travel decisions. This sampling will aim to explore the impact of influencer marketing on tourism by collecting data from both influencers and travellers.

By utilizing a combination of surveys, interviews, social media analysis, and case studies, this sampling aims to provide a comprehensive understanding of the impact of influencer marketing on tourism. The findings will contribute to the growing body of knowledge on the role of influencers in shaping the tourism industry and provide valuable insights for tourism marketers and influencers alike.

Data Collection:

Qualitative data will be collected through interviews and focus groups with tourism industry professionals, social media influencers, and travellers. Quantitative data will be collected through surveys distributed to travellers to assess the impact of influencer marketing on their travel decisions. Social media engagement data will also be analyzed to measure the reach and impact of influencer marketing campaigns.

Data Analysis:

Qualitative data will be analyzed using thematic analysis to identify key themes and patterns. Quantitative data from surveys will be analyzed using statistical methods to measure the influence of influencer marketing on traveller behavior. Social media engagement data will be analyzed to measure the reach and impact of influencer marketing campaigns.

Ethical Consideration:

The research will ensure the ethical treatment of participants, including obtaining informed consent for interviews and surveys, maintaining confidentiality of data, and adhering to ethical guidelines for research involving human subjects.

Validity and Reliability:

The impact of influencer marketing on tourism is a topic that has gained significant attention in recent years, as more and more travellers turn to social media influencers for travel inspiration and recommendations. However, when evaluating the validity and reliability of studies on this topic, it is important to consider several factors.

First, the validity of research on the impact of influencer marketing on tourism can be assessed by the soundness of the research methods used. Studies that use rigorous research methods, such as surveys, interviews, and data analysis, are more likely to produce valid results. Additionally, the use of a representative sample and clear operational definitions of key variables can enhance the validity of the findings.

Reliability, on the other hand, refers to the consistency and stability of the findings over time and across different contexts. Research on the impact of influencer marketing on tourism should be reliable, meaning that the results should be replicable and consistent with previous research findings. Studies that use standardized measures and statistical analyses to test for reliability can enhance the trustworthiness of the results.

Furthermore, the credibility of the researchers and the sources of funding for the research can also impact the validity and reliability of the findings. It is important to consider the potential for bias or conflicts of interest in studies on influencer marketing and tourism and to critically evaluate the methodology and findings in light of these factors.

The validity and reliability of research on the impact of influencer marketing on tourism can be assessed by considering the soundness of the research methods, the consistency of the findings, and the credibility of the researchers and funding sources. By critically evaluating these factors, researchers and practitioners can gain a better understanding of the true impact of influencer marketing on tourism.

Limitations:

1. Limited reach: Influencer marketing may not reach a wide audience, especially if the influencer has a niche following.

2. Authenticity concerns: Some consumers may be skeptical of influencer marketing and question the authenticity of the influencer's endorsement of a destination or experience.

3. Cost: Working with influencers can be expensive, especially if they have a large following or are well-known in the industry.

4. Dependence on the influencer: The success of influencer marketing campaigns can be heavily reliant on the influencer's content creation and engagement with their audience.

5. Difficulty in measuring impact: It can be challenging to accurately measure the impact of influencer marketing on tourism, as it may be difficult to attribute an increase in tourism to a specific

influencer campaign.

6. Lack of control: Once a destination or tourism brand partners with an influencer, they may have limited control over the content that the influencer creates and shares.

7. Saturation: The tourism industry may become oversaturated with influencer content, leading to decreased effectiveness and impact on potential tourists.

Hypothesis:

The hypothesis “Influencer marketing has a significant positive impact on tourism, leading to increased destination awareness, visitor numbers, and tourist spending.”

REVIEW OF LITERATURE

1. Schmallegger and Carson (2018), influencer marketing has a significant impact on tourism by increasing destination awareness, promoting local businesses, and driving tourist traffic. The study also found that influencer marketing is an effective way to reach younger audiences who are more likely to engage with social media.

2. Brouder et al. (2019) found that influencer marketing can enhance the authenticity and credibility of a destination, which is particularly important for millennials who value experiences and authenticity in their travel choices.

3. Khamis et al. (2017) found that influencer marketing can increase the perceived value of a destination, leading to increased visitor numbers and revenue. The study also found that influencer marketing is particularly effective in promoting niche tourism products, such as adventure tourism or eco-tourism.

Xiang et al. (2017) found that influencer marketing can lead to a lack of transparency and authenticity, as influencers may not disclose their relationships with tourism businesses or may promote destinations that they have not actually visited.

Chen and Sharma (2019) found that influencer marketing can significantly impact tourists’ decision-making process. The study revealed that influencers’ recommendations and endorsements have a strong influence on tourists’ destination choices and travel activities. This suggests that influencer marketing can effectively sway consumer behavior and drive tourism.

Kim and Kim (2018) examined the impact of influencer marketing on destination image and found that influencers play a crucial role in shaping tourists’ perceptions of a destination. The study concluded that influencer marketing can positively influence destination image and attract tourists.

Filieri and McLeay (2019) highlighted the issue of authenticity and trust in influencer marketing. The study found that consumers are becoming increasingly skeptical of influencer content and are demanding more transparency and authenticity. This suggests that influencer marketing in tourism may face credibility challenges that need to be addressed.

Gretzel et al. (2017) discussed the emergence of micro-influencers in tourism marketing. The study suggested that micro-influencers, who have a smaller but more engaged audience, could be more effective in promoting niche tourism products and experiences. This indicates that the influ-

encer marketing landscape in tourism is evolving, with new opportunities and challenges.

ANALYSIS AND INTERPRETATIONS

In recent years, influencer marketing has emerged as a powerful tool for promoting tourism destinations. Influencers are individuals with a large following on social media platforms like Instagram, YouTube, and Twitter, who are seen as experts in a particular field and are trusted by their followers. They are able to influence the opinions and decisions of their followers, and this has made them attractive to tourism businesses looking to promote their destinations.

The impact of influencer marketing on tourism can be analyzed in several ways:

1. Increased awareness and visibility: Influencers have the ability to reach a large audience and promote a destination to their followers. This can lead to increased awareness and visibility of the destination, which can result in more tourists visiting the location.

2. Improved engagement: Influencers are able to engage with their followers in a way that traditional marketing methods cannot. They are able to create content that is authentic and relatable, which can lead to increased engagement and interest in the destination.

3. Improved reputation: When an influencer promotes a destination, they are essentially endorsing it. This can improve the reputation of the destination and make it more attractive to potential visitors.

4. Increased revenue: The increased awareness and visibility of a destination can lead to increased revenue for tourism businesses in the area. This can include hotels, restaurants, and other tourist attractions.

5. Improved targeting: Influencers are able to target specific demographics and niches, which can be beneficial for tourism businesses looking to attract a specific type of tourist.

Overall, the impact of influencer marketing on tourism can be significant. It can lead to increased awareness, engagement, and revenue for tourism businesses, while also improving the reputation of the destination. As social media continues to grow and evolve, influencer marketing is likely to become an even more important tool for promoting tourism destinations.

FINDINGS OF THE STUDY

The study found that influencer marketing has a significant impact on tourism. It has the potential to reach a wide audience and influence their travel decisions. Influencers can create authentic and engaging content that resonates with their followers, leading to increased interest in travel destinations and experiences. Additionally, influencer marketing can also help in promoting lesser-known or niche tourism offerings, thereby diversifying the tourism industry. The study also found that influencer marketing can contribute to destination branding and positioning, as well as driving visitor numbers and economic growth in the tourism sector. Overall, the findings suggest that influencer marketing plays a crucial role in shaping the tourism industry and driving consumer behaviour.

1. Increased awareness and interest: Influencer marketing has been found to significantly increase awareness and interest in tourist destinations. By leveraging the reach and influence of influ-

encers, tourism boards, and businesses are able to reach a wider audience and attract more visitors.

2. **Authentic and relatable content:** Influencers are able to create authentic and relatable content that resonates with their followers, making it more likely for them to consider visiting the destination. This type of content can help to humanize the destination and showcase its unique experiences and attractions.

3. **Boost in bookings and visits:** Many studies have shown that influencer marketing can lead to a boost in bookings and visits to tourist destinations. When influencers share their positive experiences at a destination, their followers are more likely to consider visiting it themselves.

4. **Improved brand perception:** Influencer marketing can also help to improve the brand perception of a tourist destination. By partnering with reputable influencers, destinations can enhance their image and appeal to a wider audience.

5. **Long-term impact:** Influencer marketing can have a long-term impact on tourism, as the content created by influencers continues to be accessible and influential even after the initial campaign has ended.

Overall, the findings suggest that influencer marketing has a significant impact on tourism, helping to increase awareness, interest, bookings, and visits to tourist destinations. It also has the potential to improve brand perception and have a long-term impact on tourism.

CONCLUSION

The research aims to provide insights into the impact of influencer marketing on tourism, including its effectiveness in promoting destinations, influencing traveller behavior, and its overall impact on the tourism industry. The findings will contribute to the understanding of the role of influencer marketing in the tourism sector and provide valuable insights for tourism professionals and marketers.

RECOMMENDATION

1. **Collaborate with relevant influencers:** Identify and collaborate with influencers who have a strong presence in the travel and tourism industry. Look for influencers who have a genuine passion for travel and can authentically promote your destination or travel-related products.

2. **Create engaging and informative content:** Work with influencers to create engaging and informative content that showcases the unique experiences and attractions of your destination. This could include travel guides, vlogs, and social media posts that highlight the best aspects of your destination.

3. **Leverage user-generated content:** Encourage influencers to create user-generated content that showcases their personal experiences at your destination. This can help create a sense of authenticity and trust among their followers, leading to increased interest in visiting your destination.

4. **Monitor and measure the impact:** Utilize analytics and tracking tools to monitor the impact of influencer marketing on tourism. Measure key metrics such as website traffic, social media engagement, and bookings to gauge the effectiveness of your influencer marketing efforts.

5. **Build long-term relationships:** Consider building long-term relationships with influencers who have a strong impact on tourism. This can lead to ongoing promotion and advocacy for your destination, ultimately driving sustained interest and visitation.

6. Stay authentic and transparent: Ensure that influencer marketing efforts remain authentic and transparent. Disclose any sponsored content and maintain a genuine connection between the influencer and your destination to build trust with their audience.

Overall, influencer marketing can have a significant impact on tourism by reaching a wide audience and generating interest in your destination. By following these recommendations, you can effectively leverage influencer marketing to drive tourism and increase visitation to your destination.

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ROLE OF MICRO-FINANCE INSTITUTIONS FOR THE RURAL DEVELOPMENT IN INDIA

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ABSTRACT

Microfinance institutions (MFIs) have emerged as powerful agents of change in the rural development landscape of India. With a significant portion of the population residing in rural areas and grappling with financial exclusion, poverty, and limited access to formal financial services, MFIs have played a pivotal role in addressing these challenges. This abstract provides an overview of the multifaceted role of microfinance institutions in fostering rural development in India. The MFIs have brought financial inclusion to the doorstep of rural communities. By providing small loans, savings facilities, and insurance products, they have enabled the rural poor to access and utilize financial resources for income-generating activities, education, healthcare, and emergency needs. The provision of credit for micro-entrepreneurs has facilitated the creation and expansion of small businesses, which, in turn, has contributed to rural employment and income generation.

MFIs have empowered women in rural areas. Through their emphasis on women's self-help groups, MFIs have not only improved women's financial independence but have also enhanced their decision-making power within households and communities. This shift in gender dynamics has far-reaching social and economic implications, ultimately leading to improved living standards and overall rural development. They also have been instrumental in promoting financial literacy and awareness among rural populations. By offering financial education and training, they have equipped individuals with the skills and knowledge needed to make informed financial decisions, manage their resources, and escape the vicious cycle of poverty.

In conclusion, microfinance institutions have become indispensable drivers of rural development in India. Their multifaceted contributions in terms of financial inclusion, gender empowerment, financial literacy, and sustainable development have made them catalysts for inclusive progress. As India continues to work towards equitable and sustainable rural development, the role of MFIs remains pivotal in ensuring that the benefits of economic growth reach the farthest corners of the nation. Through this paper we analyze the role played by the micro finance institutions in the development of the rural areas and how it helps to achieve the goal of balanced regional development.

Keywords: Rural development, Micro finance institutions

INTRODUCTION

The nation's identity is forged in the furnace of rural India, with its vast landscapes and varied cultural fabric. Almost 65% of the people calls it home, and it continues to be the mainstay of India's social and economic structure. Nevertheless, despite its inherent value, financial exclusion, poverty, and restricted access to formal financial services have long been problems in rural communities. In a nation as vast and varied as India, promoting rural development is a difficult task that calls for creative solutions that uplift people individually and collectively while stimulating the economy. The Self-Help Group (SHG) movement in India and the Grameen Bank of Bangladesh are the origins of the notion of microfinance, which is not new. The modern wave of microfinance stands out for its inventiveness, flexibility, and broad approach that goes beyond simple financial availability. In

India, MFIs have developed into strong organisations that provide a range of financial services, such as remittances, savings accounts, insurance, and microloans. The rural poor's financial demands have been met by this development, which has also greatly raised their level of living in general. The function of microfinance institutions (MFIs) becomes apparent in this environment as a change-agent and a ray of hope. In India's rural areas, microfinance—a financial service geared towards the underprivileged—has had a revolutionary impact. It provides a lifeline to the impoverished, empowering them to take control of their own destiny and escape the bonds of poverty. MFIs are essential to this process since they serve as the channels for empowering people financially, raising living standards, and spurring economic growth. The concept of MFI's helped to create financial revolution in India By providing small loans without the stringent collateral requirements typical of traditional banks, MFIs offered the rural population a lifeline to access capital for income-generating activities, education, healthcare, and even emergency needs. This access to credit has been pivotal in breaking the cycle of poverty for many rural households, as it enables them to invest in small businesses, purchase productive assets, and weather unforeseen financial challenges. Furthermore, MFIs have introduced the concept of group lending, wherein individuals collectively guarantee each other's loans, fostering a sense of community and shared responsibility. This not only reduces the default risk but also empowers rural individuals who may lack a credit history or assets to offer as collateral. This financial revolution has far-reaching implications, as it has resulted in increased entrepreneurship and economic growth in rural areas. The rise of micro-entrepreneurs, many of them women, has been a hallmark of this transformation. These small businesses, often centered around agriculture, handicrafts, and other locally relevant activities, have become engines of rural development by generating employment opportunities, boosting income, and enhancing the overall quality of life for rural households. While access to financial services is a critical component of rural development, it is equally important to ensure that individuals have the knowledge and capability to make informed financial decisions. MFIs have recognized this need and have taken on the role of promoting financial literacy and education in rural areas. Through various initiatives, such as financial literacy workshops and training programs, MFIs equip individuals with the skills and knowledge needed to navigate the financial landscape. They teach the basics of budgeting, saving, and understanding interest rates, ensuring that borrowers understand the terms and conditions of the financial products they are accessing. Promoting financial literacy also includes raising awareness about the importance of building credit histories and managing debts responsibly. This knowledge is pivotal for individuals to move towards mainstream financial services, as a positive credit history can open doors to more substantial loans and other financial products. In this way, microfinance institutions are not only providing access to financial resources but also facilitating a deeper understanding of financial concepts and practices. This, in turn, empowers rural individuals to take control of their economic destinies and make choices that lead to long-term financial stability and growth.

In addition to fostering economic development, microfinance institutions in India have been proactive in promoting sustainable development in rural areas. This shift towards sustainability is crucial given the environmental challenges and resource constraints faced by rural communities. MFIs recognize the importance of responsible and sustainable livelihoods. They support rural entrepreneurs in adopting eco-friendly practices, which include organic farming, renewable energy utilization, and waste management. By doing so, MFIs help to preserve natural resources, reduce environmental degradation, and mitigate the negative impacts of climate change in rural areas. Overall, the role of MFIs in promoting sustainable development in rural India underscores their commitment to addressing not just the immediate financial needs of the poor but also the broader challenges associated with environmental sustainability and climate resilience.

HISTORICAL BACKGROUND OF MICRO FINANCE INSTITUTIONS IN INDIA

Microfinance, in its modern form, has a relatively short history in India, but the idea of providing financial services to low-income individuals dates back to the early 20th century. The All India Rural Credit Survey of 1951 highlighted the need for rural credit, which led to the establishment of cooperative banks and regional rural banks in the country. However, these institutions struggled to reach the poorest and most vulnerable segments of the population. The 1990s witnessed the emergence of self-help groups (SHGs) as an informal microfinance model. NGOs and government agencies began promoting SHGs to empower women in rural areas and provide them with access to credit. SHGs mobilized savings and lent money to their members, establishing a grassroots form of microfinance. This approach set the stage for the formalization of microfinance in India.

The formalization of microfinance in India can be traced back to the establishment of the National Bank for Agriculture and Rural Development (NABARD) in 1982. NABARD played a pivotal role in promoting microfinance institutions and self-help groups as a means of delivering financial services to the rural poor. The success of this model prompted the formation of specialized microfinance institutions in the 1990s, such as SKS Microfinance (now Bharat Financial Inclusion Limited), Share Microfin Limited, and others. However, in the early 2000s, the sector faced criticism for high-interest rates and aggressive lending practices. The “Andhra Pradesh microfinance crisis” of 2010 served as a turning point. Reports of borrower suicides and coercive collection tactics led to a regulatory crackdown. The Reserve Bank of India (RBI) stepped in to regulate MFIs and impose interest rate caps. This period of regulation aimed to address the excesses and protect the interests of borrowers.

Despite the regulatory challenges, the microfinance sector continued to evolve. One notable development was the emergence of Non-Banking Financial Company Microfinance Institutions (NBFC-MFIs). These institutions complied with the regulatory framework and played a significant role in expanding access to microcredit. Some well-known NBFC-MFIs include Bandhan Financial Services, Ujjivan Financial Services, and SKS Microfinance. The sector attracted capital investments from both domestic and international investors. Private equity firms, impact investors, and commercial banks recognized the social and financial potential of microfinance and began supporting MFIs. This influx of capital allowed MFIs to scale their operations and reach a wider customer base. As the microfinance sector matured, it expanded its product offerings beyond traditional microcredit. Microfinance institutions started offering a broader range of financial services, including savings accounts, insurance, and remittances. This shift towards inclusive finance was critical in promoting financial resilience and reducing vulnerability among low-income households. Technology also played a significant role in this transformation. Mobile banking, digital lending platforms, and payment gateways facilitated easier access to financial services for remote and underserved populations. The Pradhan Mantri Jan Dhan Yojana, a government initiative, encouraged the opening of no-frills bank accounts and paved the way for greater financial inclusion.

EVOLUTION OF MICROFINANCE IN THE INDIAN ECONOMY

India is one of the countries that accommodates the largest popularity of deficient people. This service has become much necessary for the ever-growing Indian population. Apart from this, poverty led to numerous issues such as incomplete education, illness, untimely deaths, women’s harassment, and many more.

All of these situations urgently required a complete system that would support penurious people. Apart from this, microfinance is quite necessary as those formal banks refuse to grant loans to those people who live below the poverty line.

By the 1980s, the Indian government finally realized that their existing policies and procedures for banking were not sufficient for catering to the needs of those inferior people. And this is the reason why these people rely on those of unorganized sectors for getting financial assistance. They often approach private agents, money lenders, and others for getting financial assistance.

After the success of the concept of Grameen Bank, NABARD (National Bank for Agriculture and Rural Development) made a recommendation for several alternative policies and procedures for making aid to those impecunious population of India that strives for making hands and also the mouth meet and also serve those from the clutches of those of moneylenders. And of this, microfinance was first introduced in numerous banking sectors. The 1980s brought a major economic crisis that also shifted from the major focus from the basic philosophy of 'no profit motive' to the fact that the system was fully commercially viable. The model was indeed highly capable of offering greater profits and also it was a fully sustainable business offering the necessary credit facilities to those needy people. It's indeed worth noting that even before the formal introduction of microfinance, which was introduced by NABARD. In those early 70s, the credit goes to none other than Mrs. Ela Bhatt who started the Self-Employed Women's Association ('SEWA') of the state of Gujarat. She formed an urban cooperative bank, which is popular as the Shri Mahila SEWA Sahakari Bank with the main objective of offering banking services to those women generally employed by those unorganized sectors in Ahmedabad, Gujarat.

In contrast to formal banking, microfinance is a shorter-duration loan and is also small in size. There is no need for collateral security and also those of lengthy procedures. The major difference between these two is that the banking system is something that is a fully commercial organization whereas the major objectives of microfinance are indeed social enhancement in nature. The main highlights of microfinance schemes are loans that are offered even without collateral security. Loans under this scheme are indeed explicitly offered to those people who are living under the poverty line.

In India, the concept of microfinance first came into existence in 1974. The credit goes to the Self-Employed Women's Association (SEWA) established in Gujarat for bringing microfinance into popularity.

After this, various banks have been offering financial services to many people who seek to grow their businesses in those rural areas. The introduction of Kerala State's Poverty Education Mission (Kudumbashree) in the year 1998 is one of the most crucial initiatives in this.

This is one of the female-owned community organizations of those Neighborhood Groups (NHGs) that bring those women from many urban and rural areas together when it comes to fighting for their rights and also help in empowering them.

With the help of these NHGs, many women work on various issues such as nutrition, health, and also agriculture. It helps them easily collect income and also seek microcredit, especially while working under this crucial scheme. These are indeed the small-scale initiatives that work best for promoting that financial independence, especially in those remote or many unprivileged areas.

There's indeed a higher necessity for offering several microfinance facilities for catering to those

of India's largest rural population. In India, the major objectives of microfinance are to promote socio-economic development at the grassroots level with the help of a community-based approach, empower women, and also increase various household incomes. Meanwhile, running any type of transformative initiative and running a microfinance program in those rural India includes numerous challenges;

- Higher interest rate
- Limited expansion in those of the poorest states
- Problem in reaching those deserving indigent
- Lower depth of outreach

PURPOSE AND ROLE OF MICRO FINANCE INSTITUTIONS

The purpose of the existence of Microfinance Institutions is to help turn the wheels of the MSME economy. Primarily, through a business model that is different from banking in general, MFIs can expand the accessibility of unbanked/underserved microfinance. The manifestation of these objectives is broadly realized in 3 types of MFI services:

1. GIVING LOANS

The main service provided by MFIs is increasing access to micro-scale funding for MSMEs. This is beneficial for people who do not have access to a bank account (unbanked) or who do not have collateral. Both of them can get access to financing through MFIs to continue their business and increase community productivity.

MFIs are encouraged to go digital in order to facilitate the process of channeling loans to MSMEs. In quantity, MFIs that have gone digital, either through their own applications or through collaboration with digital platforms, will be able to reach more MSMEs and channel more loans efficiently. Meanwhile, in terms of quality, digitalization will be able to improve the ability of MFIs to channel quality and effective loans using a good credit scoring system.

2. PROVIDING SAVINGS AND FINANCIAL MANAGEMENT SERVICES

MFIs also provide services for storing and managing funds in the form of savings and time deposits. Deposits are an investment product which has a higher rate of return when compared to savings. The refund period is 1, 3, 6 to 12 months.

The purpose of managing MSME savings is to increase people's income and welfare in order to help increase income and alternative business capital. Thus, MSMEs can upgrade their business, assist operational activities, and further become an empowered society.

3. PROVIDING BUSINESS & FINANCIAL CONSULTING SERVICES

The next service is business development consulting services related to managing business financial administration. This consultation is actually very important so that the use of funds can be operated optimally.

4. PROVIDE EDUCATION OPPORTUNITIES

Many small families in rural areas depend on farming for their income. This can make it difficult for them to invest a lot of money in the education of their children. Further, such families may require men at the farm, so their children usually work with them. In such cases, microfinance can

help families to focus on providing better education to their children.

5.OPENS POSSIBILITIES FOR FUTURE INVESTMENTS

Sometimes in rural areas, due to lack of source of income, small businesses compromise with their basic requirements. This can directly affect the profits and revenue. Microfinancing helps such businesses to meet their basic requirements, minimising the financial hindrances and helping them progress. When all the basic requirements of a small business meeting, the possibilities of future investments may also increase.

6.CREATES JOB OPPORTUNITIES

Microfinancing often provides businesses with an opportunity to create employment. Businesses can hire employees for different job roles. A business properly funded through microfinance can create local job opportunities and help in local economic growth. Entrepreneurs, when they borrow credit from microfinance institutions to start their businesses, they create employment opportunities for others. An increase in employment benefits the local economy as more money circulates through local businesses and services.

7.REDUCES FINANCIAL BURDEN

Microfinancing can help individuals and businesses in reducing monetary issues by providing them with financial services that allow them to pay their monthly bills. Businesses funded through microfinance gain motivation to focus more on offering better products and services to the target audience. Microfinance can make entrepreneurial activities less stressful and allow other community members to engage in such businesses.

When viewed from the three functions of MFIs above, digitalization of MFIs can at least help business processes and MFI customers in carrying out two main activities, namely: making deposits and paying installments. For this reason, open banking is here to improve these processes, for example the ease of deposit systems and installment payments through BRIAPI products such as virtual accounts and QRIS.

8.SIGNIFICANT ECONOMIC GAINS

The gains from partaking in microfinance programs entail access to better nutrition, higher consumption, and also consumption smoothing. Here the economic gains are not monetary but are from stability. The happiness gained from microcredits is reflected in the fact that the repayment rates are high. Hence, at the core level, microfinance almost always leaves a positive effect. Hence, microfinance has multiple advantages and is an essential tool in trying to break the cycle of poverty.

9.PROVIDES FOR THOSE WHO GO UNNOTICED

Primarily women, people with disabilities, unemployed persons, and people who need to meet the basic necessities are the ones who receive microfinance products from the microfinance institutions. It has been observed that companies with female board of directors perform better in obtaining up to 66% returns on invested capital and 42% better returns on sales than companies with only a male board of directors. Women hold significant business leadership roles and also develop others in entrepreneurial roles, even in developed countries.

FUNCTIONS OF MICRO FINANCE INSTITUTIONS

Here are some important functions of microfinancing institutions:

- Assist in the development of sustainable communities.
- Provide support to the lower sections and underdeveloped parts of the society.
- Develop effective strategies to eliminate financial shortcomings of individuals and businesses effectively.
- Offer self-employment opportunities for individuals with poor income.
- Provide training to rural entrepreneurs and individuals in different skills.
- Support self-help groups for economic development.
- Micro finance often leads to new product development.

IMPACT OF MICRO FINANCE IN POVERTY REDUCTION

The effect of microfinance on reducing poverty has been the subject of much discussion and study. Both good and negative consequences are suggested by a variety of research and experiences, and the impact is frequently dependent on the particular situation and execution. By expanding the boundaries of financial service delivery, microfinance aims to assist the underprivileged who are not catered to by traditional official financial institutions. Such financial services need to be provided via cutting-edge delivery channels and procedures. The requirements for financial services that enable individuals to manage their resources more effectively and to take advantage of possibilities. Among the numerous useful instruments available for reducing poverty, microfinance can be one. It should be utilised cautiously, though, as the relationship between microfinance and reducing poverty is not simple due to the complexity of the issue and the numerous obstacles that the impoverished face in general. This is true despite recent assertions to the contrary. It's important to comprehend when and how the poorest people can benefit from microfinance. For the impoverished, access to traditional financial services is challenging. The primary obstacle faced by the impoverished when attempting to get loans from official financial institutions is the requirement for collateral that these organizations make. Furthermore, the acquisition of a loan involves several bureaucratic processes that result in additional transaction expenses for the impoverished. They have no financial incentive to borrow money from formal institutions. Formal financial institutions tend to favour large-scale transactions over small-scale ones, loans for non-agricultural purposes over agricultural ones, and urban over rural areas. The formal institutions are not motivated to provide financial assistance to the people belong to the rural area due to various reasons, that includes systematic risk involved in agriculture activities, lack of standardized information such as financial statements or credit histories, lack of proper collateral securities. The microfinance is seen as a suitable instrument for funding small-scale projects and technical applications in rural regions due to various reasons such as Granting credit for contributions made to small-scale projects that may be of underprivileged design, give the impoverished the tools they need to believe in their own abilities, assist the underprivileged to have access to opportunities for self-employment development, offer the greatest range of benefits at the lowest cost per recipient, it charges market interest rates and works on a market basis.

Microfinance is one of the popular terms in today's time. Came into existence in the 80s, it emerged as a great solution for poverty elevation and also for empowering women. It helps women become self-dependent. Though microfinance has vast potential, this sector faces several challenges that are related in terms of its accessibility, especially in rural India. It's an important type of banking service that is meant for those people who are not capable of availing of formal financial services. The main aim of microfinance is to improve the lifestyle of those unemployed and low-income populations. In India, several institutions offer microfinance services and offer their helping hands to

improve the life and condition of the needy. Various institutions offer complete support including setting up bank accounts, lending, and also offering complete micro-insurance products. In many developing countries including India, financial services with the help of different formal channels don't match the demand of the rural need. Therefore, microfinance helps many small-scale businesses develop by offering that greater financial stability.

CONCLUSIONS

Micro Finance Institutions (LKM) on Micro, Small and Medium Enterprises (MSMEs), do have a significant impact. They played a great important role in the rural development of the country. MFIs play a role as a bridge that provides access to funding, management and consulting facilities for people with middle to lower economic status. Microfinance affects livelihood transformation in terms of poverty reduction, living standards, social well-being, empowerment and entrepreneurship. Microfinancing institutions are responsible for providing financial services to businesses and entrepreneurs to remove poverty.

Microfinance is considered as one of the most significant contributors to eradicating rural area poverty and improving the living standard of the poor people. If the focus is on rural development it requires infrastructure credit growth, movement of microloans to poor people and especially poor women.

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UNDERSTANDING THE BEHAVIOURAL INTENTION OF STUDENTS IN HIGHER EDUCATION TO USE AI-BASED SYSTEMS: AN EXTENSION OF THE TECHNOLOGY ACCEPTANCE MODEL

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ABSTRACT

Within the realm of education, a burgeoning interest has emerged in investigating the acceptance, behavioral intentions, and tangible utilization of AI-based systems and programs. A multitude of research endeavors has been undertaken to scrutinize the factors that influence the intentions of users or students concerning specific technologies and programs. Nonetheless, there has been a noticeable dearth of attention dedicated to comprehending the actual application of AI-based systems among college students. This research employs a modified Technology Acceptance Model (TAM), augmented with elements of social influence, innovation characteristics, and psychological needs, as independent variables. Additionally, prior research has infrequently delved into the mediating roles of students' learning motivation and their expectations of academic achievement.

In this context, the present study aims to elucidate the multifaceted factors that contribute to college students' concrete engagement with AI-based systems, simultaneously evaluating the impact of their learning motivations. Our empirical findings substantiate that the variables integrated into the model exert a positive influence on students' attitudes, behavioral intentions, and their eventual adoption and utilization of AI-based systems.

Keywords: *AI- Based Learning, Behavioural Intentions, Technology Acceptance Model*

1. INTRODUCTION

Technological advancements have resulted in about a transformative surge in the rapidly changing field of higher education. Artificial Intelligence (AI) is becoming a major factor in education, changing the way that learning and teaching takes place in this age of perpetual innovation. Understanding students' behavioural intentions becomes significant as educational institutions work to fully utilize AI-based systems. With an extended Technology Acceptance Model (TAM), this study sets out to examine the complicated elements of students' acceptance of AI-based systems.

The core Technology Acceptance Model (TAM) invented by Davis depends on Ajzen's theory of planned behaviour and functions as a framework to determine how well users adopt technology. Two important constructs that emerged within TAM, perceived utility (PU) and perceived ease of use (PEOU), provided insights into users' preferences toward adopting emerging technologies. TAM2 was introduced in response to the changing technological landscape and the need for a more inclusive model. This paved the way for additional adaptations, including TAM3.

This study recognizes the constant importance of PU and PEOU in predicting Behavioral Intention (BI) and requires inspiration from Aly's inquiry into internal factors influencing technology adoption. As AI-powered robots grow more and more incorporated into the educational landscape, TAM3, with its all-encompassing incorporation of technology-related constructs, becomes the pre-

ferred model for anticipating student acceptance.

This research not only analyses the TAM's ongoing relevance but also points out how the model is evolving to comply with the demands of the digital age as technology keeps shifting educational boundaries. The study of variables like perceived enjoyment and self-efficacy adds to our understanding of the complex factors affecting students' behavioural intentions.

In the ensuing segments, we traverse the past creation of TAM, investigate its modifications, and delve into specifics of TAM3. The study then looks at applying TAM3 to AI-based robots, pointing out its importance of having a complete understanding of the factors influencing students' real and aimed use of digital tools in the dynamic field of higher education.

2. LITERATURE REVIEW

Based on Ajzen's theory of planned behaviour (TPB), Davis developed the Technology Acceptance Model (TAM), which measures users' adoption of technology. Perceived usefulness (PU) along with perceived ease of use (PEOU) are these two main constructs in TAM, that evaluate users' propensity to adopt emerging technologies or not. TAM2 was developed as a result of criticisms of TAM's success in including users while promoting technology use.

The Technology Acceptance Model (TAM) had been used in Aly's (2020) study to examine the major internal factors that impact technology adoption. Perceived usefulness and ease of use were identified by the author as significant internal factors. Furthermore, the study acknowledged that, in the context of technological acceptance, infrastructure and device access were partly liable for external factors. Aly's study clarifies the complex interactions between internal and external elements in the TAM framework and offers valuable insight about the dynamics of technology adoption. This emphasizes how TAM is still important today as an accurate theoretical framework for comprehending the problems of user acceptance in today's rapidly evolving technological environment.

Venkatesh et al. (2003) strongly advocates that perceived enjoyment (PE) stands out as the most influential factor in shaping behavioural intention (BI) for the adoption of technology. Their assertion underscores the significance of the user's subjective experience and enjoyment in influencing the intention to embrace technological innovations.

Davis (1989) proposed the Technology Acceptance Model (TAM), which provides a fundamental framework to evaluate students' acceptance of various programs. Perceived utility, perceived ease of use, attitudes, and actual program behaviour or use were all correlated in Davis's original model (Davis, 1989). The traditional model has been acknowledged for its adaptability to emerging constructs, despite its aim to explain and predict technology acceptance across multiple factors (Cheung & Vogel, 2013). Following these advances, Venkatesh and Davis expanded TAM in 2000 to include social and cognitive elements like voluntariness and experience. This prompted more studies into moderating effects (Venkatesh & Bala, 2008).

Subsequent developments led to TAM 2, an extension by Venkatesh and Davis in 2000, incorporating social and cognitive factors such as experience and voluntariness. This extension encouraged further exploration of moderating effects (Venkatesh & Bala, 2008). The subsequent TAM 3, proposed by Venkatesh and Bala in 2008, synthesized 17 variables, providing a significant explanatory power (40–53%) for users' behavioural intention regarding technology use.

TAM3 is a more appropriate framework for analysing AI-based robots in education because it encompasses output quality, results demonstrability, self-efficacy, enjoyment, anxiety, and playfulness—qualities that separate it apart from alternate frameworks.

A useful framework for investigating and understanding the various conditions required for technology acceptance is the Technology Acceptance Model (TAM). Even though TAM was first established in 1989, its applications continue to expand and it is still widely used. Despite being criticized and going through several changes, TAM has remained helpful and versatile. While Venkatesh's Unified Theory of Acceptance and Use of Technology (UTAUT) is a noteworthy development, TAM continues to be used to analyse the adoption of AI, especially in the field of education. TAM is a good fit for our analysis because of its strong support in the educational field and its easy compatibility with a number of theoretical philosophies.

In the realm of technology, perceived usefulness (PU) refers to a person's perception of how specific technology can improve a task. When used in connection with AI-based technology in education, PU represents the manner in which students see opportunities for AI-based robots to create a more effective and productive learning environment. On the other hand, perceived ease of use (PEOU) refers to how simple a person holds a certain technology to be to use. PEOU stands for the view that it is simple to use AI robots to teach in the context of AI-based technology.

Self-efficacy is his belief that one has the ability of executing a particular action or task. Studies by Acar (2022), Arslan and Karameşe (2018), Bandura (1982), Gündoğdu, Dursun, and Saracaloğlu (2020), Uyar and Öztürk (2022), as well as others all support this idea.

According to Park (2009), the most influential factor in predicting the intention to use technology was found to be self-efficacy. Shen and Chuang (2010) emphasized the significance of interactivity and self-efficacy in influencing students' attitudes and behavioral intentions, along with factors like usability and perceived usefulness. The study by Alkhwaldi and Abdulmuhsin (2022) supports the idea that self-efficacy plays a crucial role in one's belief in their ability to perform specific tasks or behaviours, as highlighted by Acar (2022), Arslan and Karameşe (2018), Bandura (1982), Gündoğdu, Dursun, and Saracaloğlu (2020), and Uyar and Öztürk (2022).

Venkatesh et al. (2003) defined performance expectancy (PE) as a level at which an individual believes that a system helps to improve job performance. Venkatesh et al. (2003) state that the most important variables that influence a person's behavioral intention (BI) to adopt technology is performance expectancy.

Perceived usefulness (PU) indicates the extent to which users believe that using technological devices digital reading tools may enhance their academic performance. Users' perceptions of how simple these tools are to use for academic purposes are shown in their perceived ease of use (PEU) results. Intention to use (IU) relates to users' behavioral intentions when using digital reading tools on computers for academic tasks, while attitude (ATT) gauges users' interest in using these tools for such tasks. These ideas originate from the study findings of Davis (1989) and Cheung and Vogel (2013).

A considerable amount of research indicates the significantly positive role that perceived usefulness serves in predicting continuous intention to use digital reading tools, as showed by Wang et al. (2022a). Perceived ease of use, first introduced by Davis (1989) as an essential element of the traditional Technology Acceptance Model, indicates people's perception of the way easy it is to use

a particular system.

The definition of self-efficacy (SE) is people's confidence in their capacity to overcome hurdles and meet goals. This comprises the notion of computer and teacher self-efficacy as proposed by Schwarzer and Luszczynska (2008).

The inclusion of PEOU antecedents, that involve anxiety, playfulness, perceived enjoyment, self-efficacy, and job relevance, is an essential element of TAM3 [46, 48]. This study uses these relevant constructs, guided by TAM3, in assessing students' adoption of AI-based robots in the classroom. On the basis of inferences from various journals the hypothesis developed are:

- H1:** PU has a positive influence on students' BI to adopt AI-based robots;
- H2:** PEOU has a positive influence on students' BI to adopt AI-based robots;
- H3:** PEOU has a positive influence on PU of AI-based robots;
- H4:** OPQ of AI-based robots has a positive influence on PU;
- H5:** JR of AI-based robots has a positive influence on PU;
- H6:** Robot SE has a positive influence on PEOU;
- H7:** Robot ANX has a negative influence on PEOU;
- H8:** Robot PE has a positive influence on PEOU.

3. RESEARCH METHODOLOGY

This research utilizes a modified TAM model to evaluate Higher Education students' Behavioral Intention (BI) towards AI-based robots in educational settings. The measurement scale employed in this study was drawn from existing literature. To suit the study's context, the questionnaire was developed in English, with minor adjustments made. Education experts reviewed it to ensure its relevance to the study.

This study was conducted at Indian universities situated in the Southern Kerala, focusing on the integration of AI-based robots in education. We administered the questionnaire to students within their respective study groups. Specifically, we provided the google forms solely to students majoring in information technology, management, engineering, arts and science students, due to their deeper familiarity with AI-based robots compared to students from other departments. With a total of 32 questions, the researchers aimed to gather a maximum responses per item. A total of 310 questionnaires were distributed to full-time students, resulting in the completion of 203 questionnaires, yielding a response rate of 65.48%. The sampling method we used is Judgemental Sampling

A close - ended questionnaire with 5-point Likert scale containing questions were used to examine whether the respondents Strongly Agree or whether they Strongly Disagree by using statements that measure variables in the hypotheses of this research. Existing established measures were analysed and adopted for this study. To obtain reliable data validity and reliability tests of the measures from the survey questionnaire were conducted that can be analysed properly to reveal meaningful findings. In this study SEM, Structural Equation Modelling is used to test and evaluate the multivariate casual relationship between the independent variables and the dependent variables that taken in the study. The demographic profiles of the students and constructs and items are presented in Table below.

Table 3.1. Demographic Profile

		Frequency	Percentage
Gender	Male	85	41.87%

	Female	118	58.12%
Age	18-22	47	23.15%
	22-26	127	62.56%
	Above 26	29	14.28%
Education	Bachelors	55	27.09%
	Masters	146	71.92%
	PhD	2	0.9%
Field of Specialization	Engineering	22	10.83%
	Management	109	53.69%
	Arts and Science	49	24.13%
	Others	23	11.33%

TABLE 3.2. Constructs and Items

Perceived Ease of Use	PEOU1	The AI-based robots feature in education will be more accessible and attractive.
	PEOU2	Interacting with the AI-based robots does not require lot of mental effort.
	PEOU3	I find AI-based robots easy for learning purpose.
	PEOU4	The teaching environment will be more attractive with AI-based education robots.
Perceived Usefulness	PU1	Using AI-based robots improve my performance in education.
	PU2	Using AI-based robots enhance my effectiveness in understanding the concepts in education.
	PU3	I find AI-based robots to be useful in learning new concepts in education.
	PU4	I find AI-based robots' information accurate and helpful

Results Demonstrability	RES1	I find it easy to share the results produced by the AI-based robot with others.
	RES2	I am confident that I can effectively convey to others the implications of using AI-based robots.
	RES3	The results of the AI-based robot are clear to me.
	RES4	I would find it easy to explain the potential
Output Quality	OPQ1	The quality of the output I get using the AI-based robots is high.
	OPQ2	I rate the results from the AI-based robots to be excellent.
	OPQ3	I have no problem with the quality of the AI-Based robot's output.
Job Relevance	JR1	In my education, usage of my AI-based robot is important.
	JR2	It would be difficult to do my assignments without AI-based robot.
	JR3	Using AI-based robot is relevant to my education.
Robot Self-efficacy	SE1	I could complete the work using AI-based robot without any technical support.
	SE2	I could complete the work using AI-based robot if only one had access to the built-in facility for assistance.
	SE3	I could complete the work using AI-based robot if someone assist me using it for the first time.
Robot Anxiety	ANX1	AI-based robots scare me.
	ANX2	Working with AI-based robot makes me nervous.
	ANX3	AI-based makes me uncomfortable.
	ANX4	AI-based robot makes me feel uneasy.
Perceived Enjoyment	PE1	I find using the robot to be enjoyable.
	PE2	The actual process of using the robot is pleasant.
	PE3	I have fun using the robot.
Behavioural Intention	BI1	I will use AI-based robots in education if it would be accessible.
	BI2	I would plan to use AI-based in education.
	BI3	In the future I would use AI-based.
	BI4	I would use AI-based robots because there is a positive environment of using AI-robots in our university.

4. DATA ANALYSIS

Model Fit Indices and P Value

The model fit indices and P values for model validation are given in Table 4.1 and as seen in the table, they satisfy the acceptance criteria

Table 4.1: Model fit indices and P value

(Average path coefficient (APC) =0.216, P<0.001
Average R-squared (ARS) =0.290, P<0.001
Average adjusted R-squared (AARS) =0.280, P<0.001
Average block VIF, (AVIF) =1.432, acceptable if<=0.5
Average full collinearity VIF (AFVIF) = 1.742, acceptable if<=0.5

All the model fit indices are acceptable for further analysis

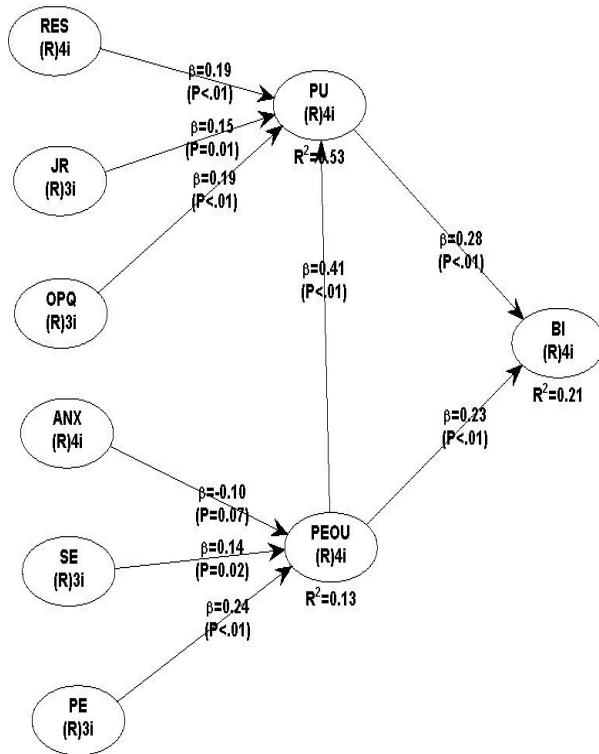
RELIABILITY FOR REFLECTIVE CONSTRUCTS

Based on the analysis, the composite reliability coefficient is considered a more appropriate measure of reliability in SEM than Cronbach's alpha. The composite reliability coefficients for all the reflective constructs in the PLS model are above 0.7 and they pass the reliability criterion. Data reliability and validity were evaluated through Cronbach's alpha (CA), composite reliability (CR), and average variance extracted (AVE) measures. presents the CA values (threshold > 0.7) and factor loadings of 0.70 .

Table 4.2: Reliability and Validity

No	Consideration	RE S	JR	OP Q	PU	ANX	SE	PE	PEO U	BI	
1	Cronbach alpha coefficient	.690	.728	.648	.639	.894	.661	.708	0.610	0.771	
2	Composite reliability	.812	.847	.810	.787	0.927	0.816	0.837	0.774	0.854	
3	Average variance extracted	.519	.648	.587	.482	0.760	0.596	0.632	0.465	0.594	
4	Convergent validity						Established as all 'p' values <0.05; loadings >0.5; cross loadings <0.5 for reflective measures				
5	Discriminant validity						Established as the square root of average variance extracted was found higher than any of the correlations involving that variable				
6	Predictive validity						Established a Q-squared coefficient of 0.532 for PU, 0.138 for PEOU, 0.218 for BI				

STRUCTURAL MODEL



BI- Behavioural Intention
PEOU- Perceived ease of use
PU- Perceived usefulness
RES- Results Demonstrability
JR- Job relevance
OPQ- Output Quality
ANX- Anxiety
SE- Self Efficacy
PE- Perceived Enjoyment

THE MODEL AND PREDICTIVE POWER

The evaluation of the fit for the inner model involved two methods: the coefficient of determination (R square) and the model's predictive relevance, assessed through the cross-validated redundancy value (Q square). The R square value gauges how much variance in endogenous constructs is accounted for by exogenous constructs. Results demonstrate that the R square values for the endogenous constructs PEOU, PU, and BI were 13%, 53.1%, and 20.9%, respectively. Following this, an assessment of cross-validated redundancy (Q square) was conducted. A Q square value above zero signifies the presence of predictive significance within the model. The Q square values for PEOU, PU, and BI were 13.8%, 53.2%, and 21.8%, respectively, indicating a moderate to high level of predictive relevance within the inner model.

STRUCTURAL MODEL

To evaluate the structural model, we adhered to the methods outlined in . Our initial steps involved examining the path coefficients and significance of the relationships. The TAM model contained 8 hypotheses. Except for one, all the proposed hypotheses were accepted.

H1: PU has a positive and significant impact on BI and is accepted.

H2: PEOU has a positive and significant impact on BI and is accepted.

H3: PEOU has a positive and significant impact on PU and is accepted.

H4: RES has a positive and significant impact on PU and is accepted.

H5: JR has a positive and significant impact on PU and is accepted.

H6: Robot SE has a positive and significant impact on PU and is accepted.

H7: Robot ANX has a negative and not significant effect on PEOU and is rejected.

H8: Robot PE has a positive and significant effect on PEOU and is accepted

DISCUSSION

The study's findings unveiled students' inclination towards embracing AI-based robots in educational settings. The acknowledged positive and substantial influence of PU (Perceived Usefulness) and PEOU (Perceived Ease of Use) on students' Behavioral Intention (BI) to adopt AI-based robots aligns with the conclusions drawn by Mohammed et.al, affirming the constructive impact of PU and PEOU on the adoption of AI-based education. Moreover, the observed positive and noteworthy influence of PEOU on PU correlates with the studies conducted by Mohammed et al. emphasizing that the perceived ease of using AI-based technologies substantially affects their usefulness in the education sector.

The study confirmed that the Relative Advantage (RES) of AI-based robots positively influences PU, consistent with the findings presented by Mohammed et al. Additionally, the results indicate that Outcome Quality (OPQ) positively influences PU, aligning with the conclusions drawn from Liu et al. study. This suggests that students perceive AI-based robots as capable of producing high-quality outcomes. However, the significant positive impact of Job Relevance (JR) on PU implies that students associate AI-based robot roles with educational activities. This significance could stem from students preferring interactive learning processes involving teachers, feeling that AI-based robots are suitable for roles

CONCLUSION

The primary aim of this study was to investigate the inclination of Indian higher education students towards adopting AI-based robots for educational purposes. Through a meticulous review of literature, this research established the relevance of TAM factors in evaluating the acceptance of AI-based robots among higher education students in India. We intentionally gathered data from students specializing in engineering, management, information technology and arts sciences at Indian universities to evaluate the applicability of the TAM model in an educational context. The study's outcomes demonstrated the high pertinence of the TAM model in predicting students' acceptance of AI-based robots for educational use. Among the 8 hypotheses proposed, 8 were validated, offering valuable insights for university administrators and policymakers to actively promote the integration of AI-based robots in education.

While the results strongly support TAM, there exists a necessity to bridge the gap between Be-

havioral Intention (BI) and the actual acceptance of AI-based robots in education. It is crucial to broaden the investigation to encompass other departments and extend its reach to different educational levels, including schools. It's important to note that this study was conducted within a developing country. As a result, future researchers should expand their scope to include developed countries to gain a more comprehensive understanding of the acceptance of AI-based robots in educational settings.

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BUILDING IMAGE THROUGH CUSTOMER ORIENTED STRATEGIES

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ABSTRACT

All organizations give much importance in formulating the marketing strategies. Marketing strategies are the immediate response to the outer environment. If marketing strategies are well formulated, implemented and evaluated it leads to better image. Image is how the public perceive an organization. It is the net result of all interactions and experiences with the company. Firms formulate efficient marketing strategies, but sometimes fail to implement it. Well formulated strategies does not attain good results, as it is not implemented correctly.. The study analyses whether customer oriented marketing strategies help in building good image of an organization. The study is conducted on private sector organizations. The researcher uses One sample t test and Analysis of variance for analysis.

Keywords - Image, Identity, Customer Orientation, Marketing Strategy.

INTRODUCTION

Marketing strategy is a long term, forward – looking approach followed by organizations with the fundamental goal of achieving a sustainable competitive advantage by understanding the needs and wants of customers. It is the integrated pattern of choices regarding products, markets and marketing activities etc. Image is the opinion people have about an organization. Image and identity are the elements of reputation. Identity is the employees perception and image is outsiders view about organization. Image is what the top management wants the stakeholders to feel about the firm.

Reputation (Fombrun,1996) is the collective judgement by outsiders about an organization's decisions and results and it is more lasting, cumulative and has global assessment. Projected image is different from corporate identity because projected image is associated with events, issues and audiences. Corporate identity include verbal, symbolic and graphic representations used by the company.

MARKETING STRATEGY

An organizations success lies on its marketing strategy. Strategy is how a firm respond to the environmental changes. Marketing managers has to develop strategies according to changing taste and demand of the customers. Firms need innovative and feasible strategies to win the market. To achieve performance, marketing managers should have strategic consensus, strategic commitment, control and autonomy. Strategic consensus means the middle and top managers should have knowledge on the fundamental principles of the organization. Consensus reduce ambiguity and helps in having clear understanding about the strategies which leads to improvements. Strategic commitment is the high level of effort taken by the managers to understand the organizational goals. Here the managers' and organization's goals are same.

Strategic planning helps organizations to sustain in the competitive market. It forms the basis of

survival and should be developed by the experienced persons. There should be link between strategy formulation, implementation and evaluation. While implementing strategies, managers have to face challenges like political interference, economic situations and lack of resources that are uncontrollable (Kabeyi). Strategy formulation decisions will make an organization think about their specific resources, products, technologies and market. Strategy formulation process enables a firm to relate and match its internal resources with external environment. External elements such as environmental factors and competitiveness become challenge for top management who formulates strategies. Resource based theory tells that successful strategy formulation process leads to high performance (David, 2011).

Barato(2014) examined how strategy formulation and balance score card affect strategy implementation. The study revealed that, there is relationship between strategy formulation and internal and external factors. Internal factors like systems, staff, skill, style, structure and values are more important than external factors like social, cultural, political, legal and technological forces. Strategy consists of formulation and planning, and strategic consensus. Structure includes cross functional coordination, resource allocation, control and communication. Behaviour is the commitment of employees and leadership of manager Brinkschroder (2014).

Strategies were managerial approaches to achieve organizational mission. Organizations were the ends and strategies were the means to achieve it. Strategy implementation involved action driven administrative task to attain the objectives. Before implementation of strategies managers should ensure that workers were motivated, work environment was conducive, policies and procedures were supportive, good reporting systems were made (Chaneta).

SIGNIFICANCE OF THE STUDY

Marketing strategy formulation is the process through which an organization chooses the most suitable course of action to achieve its desired goals. Strategy plans should be communicated to the employees to make them aware of the organizations goals, objectives and principles. Strategy formulation includes defining the organization, the strategic mission, objectives and competitive strategy, external opportunities and threats, internal strength and weakness. Image is regarded as internal conception held by insiders. Hence it is vital to study whether customer oriented marketing strategies lead to image.

OBJECTIVES OF THE STUDY

To study the Customer Oriented Marketing Strategies of an organization'

To study the Image of an organization.

RESEARCH METHODOLOGY

The study is descriptive in nature. A sample of 117 organizations is taken for the study. Organizations with more than 45 employees and 50 lakh turnover per year is used for the study. The researcher use one sample t- test and ANOVA for analysis of data. Sample is collected from Thiruvananthapuram, Ernakulam, Kozhikode, Thrissur and Palakkad. The respondents are asked to rate the statements on a five points Likert's scale where '1' indicate strongly disagree, '2' for disagree, '3' for neither agree nor disagree, '4' for agree and '5' indicate strongly agree.

Table 1

District	Firm
Thiruvananthapuram	27
Ernakulam	42
Kozhikode	14
Thrissur	22
Palakkad	12
Total	117

Table shows that the study focus on 42 firms from Ernakulam and 27 firms from Thiruvananthapuram.

MARKETING STRATEGY FORMULATION- ONE SAMPLE STATISTICS

Table 2

Variables	N	Mean	Std. Deviation	T Value	Sig.
Conducts research about customers	117	4.01	.924	11.809	.000
Analyzes the impact of strategy	117	4.00	.910	11.890	.000
Collects information about customers	117	3.97	.909	11.492	.000
Collects information about competition	117	3.87	.915	10.308	.000
Identify market opportunity	117	3.95	.964	10.650	.000
Considers the impact of market strategy on customers	117	3.97	.890	11.739	.000
When setting the objectives the organization assesses the needs of customers	117	3.96	.904	11.455	.000
Organization understands the customer's attitude	117	3.98	.938	11.340	.000
Considers negative effects of strategy on customers	117	3.85	.952	9.609	.000
Sometimes reject high growth marketing strategies	117	4.01	.886	12.317	.000
Test Value= 3					

The mean perception score of 'marketing strategy formulation' obtained by the firms are greater than the test value (3) and the calculated p values (.000) are less than the significant level of 0.05; hence there is significant difference in 'marketing strategy formulation' from the central value (3). Among the variables, 'Conduct research about customers' and 'Sometimes rejects high growth marketing' (4.01) had the highest mean score and 'Company considers negative effects of strategy on customers' had the lowest mean score (3.85).

MARKET STRATEGY IMPLEMENTATION - ONE SAMPLE STATISTICS

Table 3

Statements	N	Mean	Std. Deviation	T Value	Sig.
Truthful information while advertising	117	4.59	.709	24.254	.000
Salesmen give truthful communication	117	4.57	.735	23.150	.000
Frequent communication is priority	117	4.65	.577	30.918	.000
Marketing and public relations are co-ordinated	117	4.66	.632	28.381	.000
Makes promises about the brand that exceeds expectation	117	4.54	.826	20.155	.000
Communication considers all customers and stakeholders	117	4.56	.687	24.622	.000
Apartment try to reduce environmental impact	117	4.60	.683	25.310	.000
Services meet legal and safer requirements	117	4.63	.702	25.147	.000
Pricing policies are transparent	117	4.62	.653	26.903	.000
Evaluate pricing policies based on the value they provide	117	4.66	.709	25.294	.000
Test Value= 3					

The mean perception score of every variables of ‘market strategy implementation’ is above the test value (3) and the p value (.000) is less than the significance level 0.05. Therefore the ‘market strategy implementation’ is effective in the firm. The statements, ‘Marketing and public relation are coordinated’ and ‘ evaluate pricing policies based on value they provide’ (4.66) had the highest mean score, followed by ‘Frequent communication is of priority’ (4.65) .

MARKET STRATEGY EVALUATION - ONE SAMPLE STATISTICS

Table 4

Statements	N	Mean	Std. Deviation	T Value	Sig.
Long-term customer satisfaction is important than short term profits	117	4.46	.609	25.942	.000
Long term impact is compared with short term impact	117	4.41	.684	22.294	.000
Assess long term strategy such as relationship building	117	4.43	.686	22.497	.000
Believe that strategy has impact on organization reputation	117	4.53	.535	30.958	.000
Undertakes reviews of strategy	117	4.51	.624	26.205	.000
Test Value= 3					

Majority of the components are effective, since the mean scores of all the statements are higher than the test value (3) and the p values (.000) are lower than the significant level of 0.05.

IMAGE - ONE SAMPLE STATISTICS

Table 5

Statements	N	Mean	Std. Deviation	T Value	Sig.
The customers appreciate our organization.	117	4.49	.727	22.141	.000
The customers think it is prestigious to associate with us.	117	4.51	.715	22.900	.000
The customers think we are best in industry.	117	4.48	.714	22.389	.000
The customers look at our organization as a standard.	117	4.49	.715	22.512	.000
The customers monitor our organization's action.	117	4.49	.715	22.512	.000
The customers are proud to deal with us.	117	4.50	.715	22.767	.000
The customers think our organization has good reputation.	117	4.52	.714	23.036	.000
The customers are the best promoters of the organisation.	117	4.47	.714	22.269	.000
Test Value= 3					

The statement 'the customers think our co has good reputation (4.52)' scored the highest mean score and the variable 'the customers are the best promoters of the organisation (4.47)' scored the lowest mean score.

ANOVA

Table 6

		Mean	Std. Deviation	F Value	Sig.
Marketing Strategy Formulation	Thiruvananthapuram	3.7000	.87101	2.042	.093
	Ernakulam	3.9979	.81253		
	Kozhikode	3.6375	.56199		
	Thrissur	4.0704	.75895		
	Palakkad	4.3600	.56804		
	Total	3.9556	.77554		
Market Strategy Implementation	Thiruvananthapuram	4.4875	.46458	.723	.578
	Ernakulam	4.5917	.50941		
	Kozhikode	4.6500	.38471		
	Thrissur	4.6074	.60696		
	Palakkad	4.8200	.28983		
	Total	4.6085	.49751		

Market Strategy Evaluation	Thiruvananthapuram	4.3875	.45295	1.193	.318
	Ernakulam	4.3833	.55018		
	Kozhikode	4.4875	.52647		
	Thrissur	4.6370	.46422		
	Palakkad	4.5200	.50947		
	Total	4.4684	.51405		
Image	Thiruvananthapuram	4.5469	.72006	.733	.571
	Ernakulam	4.5130	.67153		
	Kozhikode	4.5156	.70545		
	Thrissur	4.3241	.82498		
	Palakkad	4.7375	.31978		
	Total	4.4936	.69787		

From the test of ANOVA, it is observed that the significant values of all the variables are higher than the significance level 0.05; hence accepted all the formulated hypotheses, indicating that, there is no significant difference in the mean scores of different districts with regard to the variables studied, i.e., market strategy formulation, market strategy implementation, market strategy evaluation and the image.

In market strategy formulation, Palakkad scored the highest mean score (4.3600) and Kozhikode (3.6375) scored the lowest mean score. Palakkad (4.8200) and Thiruvananthapuram (4.4875) respectively scored the highest and lowest mean scores in case of market strategy implementation. As far as market strategy evaluation is concerned, Thrissur scored the highest mean score (4.6370) and Ernakulam scored the lowest mean score (4.3833). In case of the image, Palakkad scored the highest mean score (4.7375) and Thrissur scored the lowest mean score (4.3241).

CONCLUSION

The study reveals that it is important for all organizations to focus on customer oriented marketing strategies. It gives the firm competitive advantage. Strategy formulation includes defining the organization, the strategic mission, objectives and competitive strategy, external opportunities and threats, internal strength and weakness. Marketing strategy is the pattern of organizational methods and managerial measures used to achieve organizational mission. If marketing strategies are well formulated and implemented then the firms identity and image will improve. It leads to overall enhancement of firms reputation. Sales, profit, turnover etc increase as a result of projected image. It can create huge satisfied customers.

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PRACTICE OF GREEN HRM- HOW ORGANISATIONS CAN BENEFIT?

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ABSTRACT

The main objective of this paper is to understand the Green HRM practices followed by organisations and their benefits. It involves all employees in adopting sustainable practices and enhancing awareness of eco-friendly lifestyles. Green HRM refers to the integration of environment-friendly practices with the HR policies of the organisation to attain a sustainable environment and a long-lasting future for the organisation, industry, and economy. There are various factors taken into account by organisations for going green such as increasing energy consumption, the cost associated with energy consumption, responsibilities towards the environment, and stricter regulatory and compliance regulations.

The authorities of organisations need to understand the relevance of going green regarding the policies, processes, and practices, and provide awareness to employees about environment-friendly practices, and reduction of the carbon footprint caused due to activities in the organisation. The major practices of Green HRM that can be followed by organisations are online advertisement and invitation of online application, green recruitment and selection of candidates, green orientation, green training and development, green performance appraisal, green compensation and reward system, and green safety and health. Organisations practising green HRM will enjoy a lot of benefits and have an edge over their competitors.

Keywords: Green HRM, Practices, Benefits

INTRODUCTION

The concept of Green HRM was introduced by Wehrmeyer in the year 1996 in his book titled “greening people: human resources and environmental management(as in Jackson, Renwick, Jabbour, & Muller-Camen, 2011). Green HRM is gaining very wide popularity all around the world in the current scenario. It is a very emerging concept in the field of management. It involves all employees in adopting sustainable practices and enhancing awareness of eco-friendly lifestyles. Green HRM is being implemented by many countries to achieve a sustainable competitive advantage(Aykan, 2017; Leonidou et al., 2017)through good organizational environment performance (Rawashdeh, 2018).The green colour represents the following aspects such as peace, friendliness, happiness, growth, life, and fashion.

STATEMENT OF THE PROBLEM

The present paper tries to address the important practices of Green HRM and its benefits. Mishra (2014) in his study has highlighted that there is a research gap in the area of Green HRM in public sector organisations in India.

OBJECTIVES OF THE STUDY

1. To understand the concept of Green HRM
2. To examine the practices of Green HRM followed by organisations
3. To understand the benefits of Green HRM

RESEARCH METHODOLOGY

The study is descriptive in nature. Data is collected from secondary sources such as research articles, books, magazines, newspapers, etc.

REVIEW OF GREEN HRM

Suharti and Sugiarto (2020) explained that the implementation of Green HRM in the organization helped to achieve certain benefits such as an environmentally friendly culture and work climate, an increase in the efficiency of various resources, a positive corporate image, and an increase in the economic and eco-performance.

Leonidou et al. (2017) stated that green business strategies helped companies achieve a competitive advantage leading to the enhancement of business performance.

Margaretha and Saragih (2013) in their study have found that organisations that are focussing on environmentally sustainable business practices by promoting greener corporate culture will have greater efficiencies, reduced costs, and an atmosphere of enhanced employee engagement.

Organisations need to promote technical and management skills among the employees to promote an effective corporate green management system (Daily et al., 2012; Unnikrishnan and Hedge 2007).

GREEN MANAGEMENT

“A Green organization is defined as a workplace that is environmentally receptive, resource-well-organized and socially responsible. In the environmental writing, the impression of green management for sustainable development has different definitions; all of which normally, look to clarify the requirement for balance between organizational growth for wealth design and protection of the natural environment so that the future making may succeed” (Daily and Huang, 2001).

GREEN HRM

It is very important to understand the fact that the concern for the environment started in the early 1990's. Several organisations have established initiatives towards environmental management such as the usage of less contaminated materials, reduced packaging, and efficient use of energy (K.-L. Wong et al., 2013). Hussain (2018) stated HR plays an important role in hiring skilled employees who can implement and adopt green practices in the organization and can improve environmental sustainability.

“GHRM” is the adoption of HRM practices and strategies which help in the achievement of social, financial & ecological goals, while providing a positive impact to an organization over a longer time horizon” (Wikhamn, 2019). Mampra (2013) stated that green initiatives such as electronic filing, teleconferencing, vehicle sharing, telecommuting, virtual meetings, e-learning & paperless offices will reduce the carbon footprint. P&G (Procter and Gamble) is an organisation which has changed from a paper-based office to a paperless based office.

Practices of Green HRM

(i) Online advertisement and Invitation of online application

As a result of the advancement in technology, advertisements related to job openings can be posted on job websites and company websites instead of being published in newspapers. The candidate is required to have an internet connection to get information through all these sources. This process is easy and saves a lot of time.

(ii) Green Recruitment and Selection of Candidates

“Green recruitment can be defined as the process of hiring individuals with knowledge, skills, approaches, and behaviours that identify with environmental management systems within an organization. Recruiting candidates with the green bend of mind makes it easy for firms to induct professionals who are aware of sustainable processes and are already familiar with basics like recycling and conservation”. Organizations have two options to adopt a green approach in their recruitment process. One is to develop a recruitment strategy that identifies candidates who are environmentally aware and concerned about the environment. The other is to present themselves as environmentally friendly employers to attract candidates who value environmental sustainability (Clarke, 2006). To implement green recruitment, companies can use various mediums such as email, online applications, and job portals to advertise their job openings. During the selection process, companies should include questions that assess the candidates’ environmental awareness and their willingness to maintain a sustainable workplace.

(iii) Green Orientation

The induction program designed by the organization should give the newly joined employees a feeling that serious measures are being taken for a green workplace, clean environment, healthy and clean local areas considering the health and safety of employees. This will help the employee to get a positive feeling about the workplace.

(iv) Green Training and Development

Green Training and Development help to educate employees about environmental training and development and energy awareness in the organization, reduce wastage, and solve the problems of the environment in the organization so that employees get equipped with green management skills. The trainer should try to use online course material instead of printed books and brochures to reduce the usage of paper. Green training and development incorporate knowledge and skills in the employees needed to achieve organizational goals and objectives thereby enhancing the performance of the organization (Zoogah, 2011). The various areas that can be covered in the training shall include climate change, energy, water diversity, air pollution, waste management, ozone layer depletion, deforestation, and oceans and fisheries.

(v) Green Performance Appraisal

The function of Performance management in HRM is aimed at evaluating an individual’s performance in the light of organisational goals. Green Performance Appraisal can be defined as “the extent to which certain employees engage in behaviour (actions and activities) and produce results concerning greening over a certain period” (Anton, 2016). The main aspects to be considered for the appraisal of the employee are green targets, purpose, green initiatives and responsibilities taken by the employee and green results.

(vi) Green Compensation and Reward System

The compensation and reward policy of the organization should be prepared in such a way as to

provide monetary and non-monetary benefits to employees who have taken the initiative and effort to keep the workplace clean. Green rewards can cover aspects such as carbon credit offset to free bicycles to engage people in the green agenda (Pillai and Sivathanu, 2014). R.K. Mishra et al. (2014) suggested that organisations can take necessary measures to reward employees who use bicycles to commute and practice carpooling. Phillips (2007) stated that by providing incentives and rewards, employees can focus on the potential in their workplace and do their best to achieve organisational goals.

(vii) Green Safety and Health

The major responsibility of the employer is to provide a safe and healthy environment to its workforce. According to the Society of Human Resources Management “A green workplace” is environmentally conscious, resource-efficient, and socially responsible”. Providing a green environment at the workplace will enhance the health of employees and help in the reduction of medical costs.

Some examples of Green HRM practices followed by organisations

In 2010, Wipro Infotech launched Greenware desktops that are environmentally friendly and made of materials that are free from harmful chemicals such as polyvinyl chloride (PVC) and brominated flame retardants (BFRs). These desktops provide a safe and healthy work environment for employees by eliminating exposure to carcinogenic substances. Moreover, the removal of hazardous toxins ensures the safe disposal and recycling of electronic products.

In 2008, ITC introduced a new type of eco-friendly paper known as “Paperkraft Premium Business Paper” in India. It was the first of its kind in the country and utilized “Ozone Treated Elemental-Chlorine Free” (ECF) technology to prevent the release of harmful chemicals during paper manufacturing. This technology is an upgrade over conventional methods that employ elemental chlorine.

Benefits of Green HRM

- 1. Achievement of a healthy working environment and enhancing the morale of employees**
Green HRM can help the working environment to be smoke ban, hygienic, clean, dust and gas free which helps to create a healthier working place. The presence of a green environment provides calmness and mental satisfaction to employees.
- 2. Preservation of the Natural Environment**
The green practices adopted by organisations such as paperless recruitment, online training, carpooling, and the use of solar energy help in the preservation of natural resources.
- 3. Achievement of competitive advantage through corporate social responsibility**
It is the responsibility of each organization to ensure that corporate social responsibility practices are done in the best possible way to get a competitive edge against other competitors.
- 4. Cost savings for the organisation**
The achievement of a fresh and healthy working environment helps to reduce the tiredness of employees and leads to lower absenteeism rate, lower employee turnover and finally resulting in cost savings for the organisation.
- 5. Change in the attitude of the employees**
The efforts taken by the authorities to make a greener workplace will have a positive impact on employees towards work and cultivate eco-friendly attitudes in their personal and professional lives.

CONCLUSION

The authorities of organisations have a responsibility to guide their employees on the benefits and best practices of Green HRM. Although the implementation of Green HRM might initially pose some challenges, it will ultimately help organisations achieve sustainability and competitive advantage through the promotion of corporate social responsibility. Adopting eco-friendly practices will result in fewer employee turnovers, increased labour productivity, business opportunities and sustainable use of resources. Ultimately, implementing Green HRM not only benefits the organisation but also contributes to a healthier and greener society.

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FACTORS INFLUENCING THE CHOICE OF MALTED FOOD DRINKS AMONG PARENTS IN KERALA

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ABSTRACT

In the lush coastal state of Kerala, nestled in the southern tip of India, a significant segment of parents turns to malted food drinks as a cornerstone of their children's dietary regimen. A complex interplay of cultural, economic, and nutritional factors supports this preference. This study explores the factors driving parents to adopt malted food drinks in Kerala, a state known for its cultural tapestry and distinctive dietary practices. It reveals the growing nutritional consciousness in the region and the various motivations behind their purchasing decisions. This research aims to identify factors influencing parents in Kerala to choose malted food drinks, including nutritional benefits, cultural preferences, and economic reasons, to understand their sustained popularity. Parents of children under the age of 18 years are selected to collect the data for the subject stated. Questionnaires are prepared, and reliability is checked and filled by the concerned respondents directly and via Google Forms. Through this research, we endeavour to not only enrich our understanding of consumer behaviour in this specific context but also contribute valuable insights to the broader discourse on child nutrition and dietary preferences.

Keywords: *Cultural preferences, Child Nutrition, Economic considerations, Malted food drinks, Nutritional consciousness.*

1. INTRODUCTION

In recent decades, the consumption of malted food drinks has become an integral part of the dietary habits of families worldwide (Grossbart et al.,1991). These fortified beverages, enriched with essential nutrients, have gained popularity for their convenience, taste, and perceived health benefits, especially among parents concerned about the nutritional well-being of their children (Guo et al.,2012). Kerala, a state known for its rich cultural heritage and distinctive dietary preferences, is no exception to this global trend. The selection of a suitable malted food drink for children in Kerala is influenced by a myriad of factors, including cultural practices, socioeconomic status, nutritional awareness, and advertising strategies. Understanding these determinants is crucial for both marketers in the industry and policymakers aiming to promote healthier dietary choices among families in the region. This study embarks on an exploratory journey to unravel the multifaceted factors that shape the preferences of parents when it comes to malted food drinks in Kerala. By delving into the socio-cultural and economic landscape of the state, as well as the prevailing trends in nutritional awareness, this research aims to provide valuable insights into the decision-making process of parents. Additionally, this study seeks to shed light on the impact of marketing and promotional activities conducted by manufacturers of malted food drinks, and their role in influencing consumer choices within this specific demographic.

2. STATEMENT OF THE PROBLEM

The consumption of malted food drinks among families, particularly in the state of Kerala, has witnessed a notable surge in recent years. This surge reflects a growing inclination towards fortified beverages as a means of addressing nutritional requirements, particularly for children. However, the factors governing the selection of specific malted food drinks in this region remain a subject of limited empirical investigation. Understanding the determinants that guide parental choices in malted food drinks is critical for various stakeholders, including manufacturers, marketers, health authorities, and policymakers, as it can significantly impact both the dietary practices and health outcomes of families in Kerala.

3. SCOPE OF THE STUDY

In today's fast-paced society, there is an ever-increasing demand for sustenance and energy. In the global pandemic arena, nutritional supplementation is strongly advised for children. This study is to provide an in-depth analysis and examination of consumer preferences for malted food drinks, as well as their brand preferences. This study is limited to malted food drink companies and is only conducted in Kerala. The research also sheds light on the elements that impact parents in choosing the best malt food drink brand for their children.

4. SIGNIFICANCE OF THE STUDY

The significance of this investigation lies in its potential to inform marketing strategies tailored to the unique preferences and priorities of parents in Kerala. Furthermore, it serves as a platform for stakeholders, including health authorities and policymakers, to formulate guidelines and interventions aimed at promoting healthier dietary practices among families in the region. As Kerala grapples with evolving dietary patterns amidst rapid socio-economic development, a nuanced understanding of the factors guiding parental choices in malted food drinks is indispensable for crafting effective and culturally sensitive public health initiatives.

5. OBJECTIVES OF THE STUDY

The present study has formulated objectives with the aim of accomplishing the main purpose of the study.

- ❖ To study the demographic profile of sample respondents and the consumption pattern of consumers towards malted foods.
- ❖ To assess the extent of loyalty of the parents towards malted food brands.
- ❖ To suggest a model depicting factors which contribute to parental buying decisions.

6. MATERIALS AND METHODS

6.1 Research Design

The current study is primarily based on primary data collected through the distribution of questionnaires to customers. The current study is descriptive and cross-sectional in nature, with data collected from several places around Kerala utilising a suitable random sampling procedure. The poll was designed to discover the elements that influence parents' purchasing habits when it comes to malted beverages. To determine the reliability of the questionnaire, a reliability test was run using SPSS. SPSS 22 is used to evaluate the data and run various tests. Furthermore, to understand the relationship between user brand choice and loyalty to malted beverages. Because both the dependent and independent variables are categorical, the T-test, correlation analysis and chi-square test were used.

6.2 Sampling Design

Parents whose children are under the age of 18 years are taken as the sample size for the study. A convenience sampling method was adopted for the study. A total of 78 individual consumers were selected for the current study.

7. ANALYSIS & DISCUSSIONS

Data obtained through Google Forms are critically observed and analysed with the help of the SPSS 21 version and the results are obtained. In this section, the main findings of the study are presented based on the analysis of the primary data collected from the sample respondents. Demographic factors such as age, sex, monthly income, locality, educational qualification and occupation were taken for the purpose. The appropriate statistical tools were employed for analysing the primary data.

Objective 1 - To study the demographic profile of sample respondents and the consumption pattern of consumers towards malted foods.

The major inferences with respect to the demographic profile of the respondents are presented below:

Table 1 - Demographic profile of respondents

Respondents		Frequency	Per cent
Age	Below 30	33	42.3
	31-40	21	26.9
	41-50	10	12.8
	Above 50	14	17.9
Occupation	Government	25	32.1
	Private	38	48.7
	Business	9	11.5
	Others	6	7.7
Qualification	upto12	11	14.1
	under graduate	15	19.2
	Graduate	31	39.7
	Post-graduation and above	21	26.9
Family type	Nuclear	39	50.1
	Joint family	22	28.2
	Extended family	9	11.5
	Childless Family	3	3.8
	Re-constituted Family	5	6.4

Monthly income	<10000	13	16.6
	10001-25000	26	33.3
	25001-40000	28	35.9
	40001-55000	4	5.1
	Above 55000	7	8.9
Residence	Urban	40	51.3
	semi-urban	28	35.9
	Rural	10	12.8

Source: Primary Data

Regarding age, (42.3%) respondents were below 30 years and (26.9%) respondents were aged between 31-40. As a result, the study sample is widely distributed and, samples represent a larger population. With respect to occupation, the majority of the respondents (48.7%) were employed in private firms followed by government jobs (32.1). As for the educational qualification of the respondents about (26.9%) of the respondents holds post-graduation and above degree qualification. With regard to locality, the majority of the respondents, that is 51.3 % reside in urban areas followed by the semi-urban population (35.9%). The majority of the respondents (50.1%) are from the nuclear family followed by 11.5% from joint families. Around 35.9% of the respondents have a monthly income of 25000 – 40000 followed by the income group of 40001-55000(5.1%)

Objective 2 - To assess the extent of loyalty of the parents towards malted food brands.

To assess the loyalty of parents towards the purchase of malted health drinks, monthly income, familytype, consumption pattern, purchase quantity, qualification and brand awareness are checked and analysed using SPSS.

Table 2 – Chi square test done between monthly income v/s purchase frequency

**Monthly income * purchase frequency
Cross tabulation**

Weekly	Purchase frequency				Total
	Monthly	Twice in a month	Once in two months	Usage may vary on the basis of usage	

Monthly income	<10000	0	3	1	1	2	7
	10001-25000	0	2	4	1	9	16
	25001-40000	1	4	1	3	11	20
	40001-55000	2	4	3	3	10	22
	Above 55000	2	5	1	0	5	13
Total		5	18	10	8	37	78

Source: SPSS

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.734 ^a	16	.813
Likelihood Ratio	13.246	16	.648
Linear-by-Linear Association	.410	1	.521
N of Valid Cases	78		

The key result in the Chi-Square Tests table is the Pearson Chi-Square. The value of the test statistic is 10.734. The corresponding p-value of the test statistic is $p = 0.813$. Since the p-value is greater than our chosen significance level ($\alpha = 0.05$), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between purchase frequency and monthly income. ($X^2(2) > = 10.734, p = 0.813$).

Table 3 – Chi-square done between Family type and Consumption pattern
Family type * consumption
Cross tabulation

Once in a day		consumption				Total
		Twice in a day	Alternative days	No response		
Family type	Nuclear	18	7	11	3	39
	Joint family	7	6	5	4	22
	Extended family	0	2	3	4	9
	Childless Family	2	0	0	1	3
	Re-constituted Family	1	0	3	1	5
Total		28	15	22	13	78

Source: SPSS

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.025 ^a	12	.287
Likelihood Ratio	17.915	12	.118
Linear-by-Linear Association	3.823	1	.053
N of Valid Cases	78		
a. 15 cells (75.0%) have an expected count less than 5. The minimum expected count is .33.			

The key result in the Chi-Square Tests table is the Pearson Chi-Square. The value of the test statistic is 14.025. The footnote for this statistic pertains to the expected cell count assumption (i.e., expected cell counts are all greater than 5): no cells had an expected count less than 5, so this assumption was met. The corresponding p-value of the test statistic is $p = 0.299$. Since the p-value is greater than our chosen significance level ($\alpha = 0.05$), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between family type and consumption pattern. ($\chi^2(2) > = 14.025, p = 0.287$).

Table 4 - Chi-square test done between Family Type and Quantity purchased
Family type * quantity purchased
Cross tabulation

200gm		quantity				Total
		250gm	500gm	1kg		
Family type	Nuclear	5	8	20	7	40
	Joint family	3	1	11	5	20
	Extended family	1	1	2	4	8
	Childless Family	3	0	0	0	3
	Re-constituted Family	1	0	3	3	7
Total		13	10	36	19	78

Source: SPSS

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.803 ^a	12	.001
Likelihood Ratio	26.944	12	.008
Linear-by-Linear Association	2.060	1	.151
N of Valid Cases	78		
a. 15 cells (75.0%) have an expected count of less than 5. The minimum expected count is .46.			

The key result in the Chi-Square Tests table is the Pearson Chi-Square. The value of the test statistic is 31.803. The footnote for this statistic pertains to the expected cell count assumption (i.e., expected cell counts are all greater than 5): no cells had an expected count less than 5, so this as-

sumption was met. The corresponding p-value of the test statistic is $p = 0.299$. Since the p-value is greater than our chosen significance level ($\alpha = 0.05$), we do not reject the null hypothesis. Therefore, there is no significant association between family type and the quantity purchased. ($\chi^2(2) = 31.803, p = 0.001$).

Table 5 – Chi-square test done between Qualification and Brand awareness
Qualification * brand awareness
Cross tabulation

Horlicks		Brand awareness				Total
		Horlicks	Boost	Pedia sure	Complan	
Qualification	upto12	2	0	4	0	6
	under graduate	0	5	0	1	6
	graduate	4	1	0	0	5
	Post-graduation and Above	18	28	9	6	61
Total		24	34	13	7	78

Source: SPSS

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.508 ^a	9	.001
Likelihood Ratio	26.457	9	.002
Linear-by-Linear Association	2.284	1	.131
N of Valid Cases	78		

12 cells (75.0%) have an expected count of less than 5. The minimum expected count is .32.

The key result in the Chi-Square Tests table is the Pearson Chi-Square. The value of the test statistic is 27.508. The footnotes for this statistic pertain to the expected cell count assumption (i.e., expected cell counts are all greater than 5): no cells had an expected count less than 5, so this assumption was met. The corresponding p-value of the test statistic is $p = 0.001$. Since the p-value is greater than our chosen significance level ($\alpha = 0.05$), we reject the null hypothesis. Therefore, there is a significant association between qualification and brand awareness. ($\chi^2(2) = 27.508, p = 0.001$).

Table 6 - T Test

	Test Value = 0					
	t	df	Sig. ((2-tailed)	Mean Difference	Confidence Interval of 95% the Difference	
					Lower	Upper
Variety	23.487	109	.000.	2.400	2.21	2.49
Quality	21.220	109	.000.	1.582	1.74	1.82
Taste	20.251	109	.000.	1.818	1.64	2.00
Brand Loyalty	24.329	109	.000.	1.855	1.70	2.07

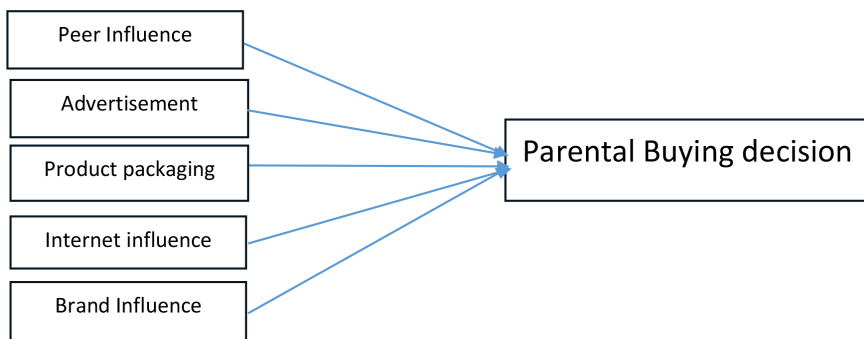
Convenience	24.177	109	000.	2.064	1.90	2.23
Advertisement	26.389	109	000.	2.145	1.98	2.41
Social Media	25.249	109	000.	2.309	2.13	2.47
Celebrity	23.267	109	000.	2.473	2.66	2.68
Gift	26.344	109	000.	3.055	2.82	3.19
Nutritionist	29.136	109	000.	2.355	2.20	2.51
Choice Of Child	24.336	109	000.	2.300	2.11	2.39
Health Consciousness	27.056	109	000.	2.664	2.17	2.86
Peer	26.831	109	000.	2.755	2.55	2.96
Packaging	26.112	109	000.	2.845	2.33	3.06
Flavour	25.248	109	000.	1.900	1.75	2.05
Best For Children	27.275	109	000.	2.555	2.37	2.74

Source: SPSS

To measure the extent of loyalty of customers towards the branded malt drinks, sixteen variables were investigated namely variety, quality, time, convenience, social media advertisements, celebrity endorsements, gifts attached, peer groups, packaging, flavour and recommendations. The result is statistically significant at a 95 per cent confidence level and the alternate null hypothesis is rejected. Taking this into consideration, we can conclude that the above factors do not have any influence on the brand loyalty of customers.

Objective 3 - To suggest a model depicting factors which contribute to parental buying decisions

From the literature reviewed, it is found that various factors such as Peer influence (Kaur and Medury (2013), Lati et al., (2017), Advertisement (Ward et al., (2016), Product packaging (Abbasi et al., 2020), Internet influence (Kaur and Singh, 2006) and brand influence (Taghavi and Seyedsalehi, 2015) have positively influenced and impacted the parental buying decision process. A conceptual model is depicted below:



Model Source: Compiled by the researcher

CONCLUSION AND MANAGERIAL IMPLICATIONS

The exploration into the factors influencing the choice of malted food drinks among parents in Kerala has provided valuable insights into the complex interplay of socio-cultural, economic, nutritional, and marketing influences. Through a comprehensive analysis of these determinants, several key findings have emerged. This study provides a comprehensive understanding of the multifaceted factors influencing parental choices of malted food drinks in Kerala. The insights gleaned from this research have implications for various stakeholders, including manufacturers, marketers, health authorities, and policymakers. It is imperative that strategies are developed with a nuanced understanding of the unique socio-cultural context of Kerala, taking into account the diverse factors that guide parental decision-making.

Moving forward, recommendations stemming from this study can inform the development of culturally sensitive marketing strategies and targeted public health interventions aimed at promoting healthier dietary practices among families in Kerala. By addressing the specific needs and preferences of parents in this region, we can contribute to the overall well-being and nutritional health of the population.

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INDIVIDUAL READINESS TOWARDS REVERSE MENTORING: A DUAL-PERSPECTIVE STUDY

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ABSTRACT

Reverse mentoring is an innovative approach to mentoring, wherein a younger, less experienced member of an organization takes on the role of mentor to an older veteran executive of the organization. The mutual flow of skills and wisdom involved in a reverse mentoring program would enable the senior members to adapt to modern digital tools and strategies and empower the younger employees to transfigure into competent and successful leaders of tomorrow. Individual readiness of the potential mentors and potential mentees is one of the crucial factors influencing the effective implementation of reverse mentoring programs since the decision to adopt or oppose a change lies with the people of the organization. This paper is a dual-perspective study that explores the individual readiness of potential mentees and potential mentors toward a reverse mentoring program. The data is collected from two groups of samples– 50 senior executives who could be potential mentees and 50 younger employees who could be potential mentors– currently employed in the Thrissur district of Kerala. The contributions of the study would enhance the current literature on this concept, especially in the Indian context, and help HR professionals interested in leveraging the potential of a multi-generational workforce.

Keywords: reverse mentoring, individual readiness, perceived value

1. INTRODUCTION

Mentoring is an age-old concept of intellectual partnership between individuals wherein a senior is partnered with a junior to impart their knowledge, skills, and experiences, aiming for the junior's career and personality development. Reverse mentoring is a relatively new theory in the domain of education and management, bringing a unique twist to traditional mentoring practices. This approach involves a younger employee mentoring an experienced older colleague, fostering a collaborative relationship that bridges intergenerational gaps. Reverse mentoring is especially relevant in this intensely technology-driven world, enabling the older generations to adapt to modern digital tools and strategies. The reciprocal cognitive transfer achieved through reverse mentoring is a great instrument to empower the less experienced employees to become competent and successful leaders of tomorrow. Hence, the two-way flow of wisdom, skills, and expertise will help in guiding employees across generations to be fit to sprint in the intense global competition.

2. STATEMENT OF THE PROBLEM

The concept of reverse mentoring overturns the traditional idea of mentoring and operates beyond the conventional hierarchy in an organization (Scott, 2023). Therefore, the implementation of reverse mentoring involves bringing a *change* to the organizational culture and practices. Successful execution of organizational change is largely dependent on the *readiness for change*. According to Holt, Armenakis, Feild, and Harris, readiness for change is defined as “the extent to which an

individual or individuals are cognitively and emotionally inclined to accept, embrace, and adopt a particular plan to purposefully alter the status quo". People of the organization are "the real source and vehicle for change" as they are the ones who will determine whether to adopt or oppose change. Hence, assessing the individual readiness of the members is crucial before the administration of any change (Rafferty et al., 2013). A study conducted by Chaudhuri et al., in 2022, identified readiness as one of the important factors concerning the practice of formal and informal reverse mentoring. Also, according to the authors, readiness to reverse mentoring varies across national boundaries and encourages further research on how reverse mentoring practices are looked upon in different cultures.

Therefore, this paper seeks to study the individual readiness towards reverse mentoring from the perspectives of both potential mentors and potential mentees working in organizations located in Thrissur district of the Indian state of Kerala.

3. REVIEW OF LITERATURE

Chaudhuri et al. (2022) found that reverse mentoring can be practiced both formally and informally if aligned with the cultural preferences of the organization. The study highlights that expertise is one of the most valued criteria in a reverse mentoring program, unlike its traditional counterpart where experience is given more weightage than expertise. Experienced protégé would be willing to enter into reverse mentoring relationships only if they believe that the mentors could offer special expertise in any domain the mentee needs improvement in.

Raju et al., (2022) conducted a mixed methods feasibility study in a clinical setting of NHS, UK. Prior to the mentoring program, participants expressed concerns regarding risk to relationships with superiors and hierarchical differences which may hamper proper mentoring. However, both the mentors and mentees found the experience to be highly enlightening; mentors were able to elevate their level of confidence and senior mentees felt they could gain significant insights to enhance their clinical practice.

Ian Browne (2021) showed the relevance of reverse mentoring as an effective method to inculcate generational diversity, especially in the present context where four generations are present in a professional setting – since 2020. Through a narrative methodology, it highlights how the effective implementation of a reverse mentoring program provides a personal learning environment for older executives without any external burden, catering to the older leaders' intrinsic love for learning. On the other hand, younger employees would benefit enormously from the intellectual enrichment involved and also develop a sense of accomplishment by working meaningfully with their mentees.

4. THEORETICAL FRAMEWORK

This section lays down the theoretical framework for the study by discussing the following interrelated concepts concerning the implementation of reverse mentoring programs: (1) role reversal (2) power distance (3) organizational age theory (4) social exchange theory "Role reversal" which occurs in a reverse mentoring program is, according to Murphy (2012), one of the key antecedents for reverse mentoring. Accustomed to being behind the reins for years, it might be challenging for the senior employees to come to terms with being in the position of a mentee.

The concept of reverse mentoring operates beyond the conventional hierarchy in an organization. Gündüz & Akşit in 2018 found that it was hard to apply reverse mentoring in Türkiye due to high power distance. The Indian management structure is also characterized by high power distance

(De Gersem, 2020) and superiority is given importance in the Indian culture. Indian employees often encounter difficulties in disagreeing with their superiors. Therole reversal along with the hierarchical imbalance may serve as a barrier to the proper implementation of reverse mentoring from the perspective of young mentors who have never taken the lead in dealings with their superiors nor been in a “mentoring relationship in a professional context” (Murphy, 2012).

Another hurdle closely related to role reversal is the prejudices related to age norms as propounded in the “organizational age theory” (Lawrence, 1988). Age norms are “stereotypical impressions about which age suits which role in a relationship and the organisation”. These age norms will be overstepped if young employee accomplishes something that is supposed to be achieved further in age. In this context, reverse mentoring will violate the established age norms as it flips the dynamics of traditional mentorship. Accordingly, the older protégé may feel insecure about being in a mentoring relationship withthe younger generation “as they may feel behind the schedule” (Chaudhuri Sanghamitra & Ghosh, 2012). A study found that older workforce from Asian countries were only comfortable participating in reverse mentoring programs conducted in formal settings and only for technology-based skills which are widely accepted as the domain of younger folk. They believed that certain skills and abilities were associated with seniority and henceyounger mentors would not be capable of handling those (Chaudhuri et al., 2022). This is a clear example of organizational age theory and age norms which will have a great impact on the attitude of the senior executives.

Finally, reverse mentoring has been frequently associated with the social exchange theory. “Social exchange theory is a concept based on the notion that a relationship between two people is created through a process of cost-benefit analysis” (Tulane School of Social Work). In the context of reverse mentoring, participants evaluate the perceived value of their participation. When the participants perceive that their involvement would result in increased benefits in the form of skill enrichment or insights from other generations, they are more inclined to participate in the program. (Murphy, 2012) Therefore, the value attributed by the participants to the program or the perceived value significantly influences their readiness to participate.This paper studies the individual readiness of people who could be mentors and mentees within their respective organizations based on the conceptual model (see Fig. 1) developed from the theories and concepts discussed above. The model illustrates the factors that could influence individual readiness from the perspectives of both potential mentees and potential mentors.

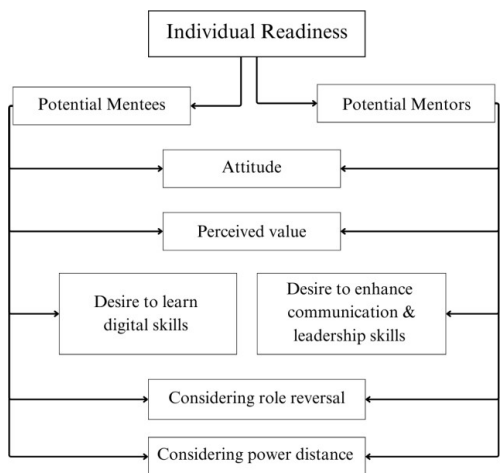


Figure 1: Dual-Perspective Conceptual Model of Factors Influencing Individual Readiness

5. OBJECTIVES

The main objectives of this study are as follows:

1. To determine the individual readiness of potential mentees.
2. To ascertain the individual readiness of potential mentors.
3. To analyze the difference in the individual readiness of potential mentors and potential mentees.

6. METHODOLOGY

The study follows an analytical research design to explore the individual readiness of potential participants in a reverse mentoring program. The individual readiness of potential mentees and potential mentors is examined on the basis of the conceptual model (see Fig. 1).

Data Collection: Data was collected from both secondary and primary sources. Secondary sources include websites and research articles from various sources which are detailed in the references section. Primary sources are explained below:

A purposive sampling technique was administered and data was gathered from people employed in organizations located in the Thrissur district of Kerala. To collect data, two groups of samples were identified and were given two different structured questionnaires consisting of nine questions each. These two groups include people majority of whom had never been part of any reverse mentoring programs.

Group 1 (Potential Mentees): This group consists of 50 people who could become mentees if a reverse mentoring program is implemented in their respective organizations. Data was collected from people who belonged to the generations– Baby Boomers and Generation X, holding a managerial level job (including all levels of management) in their organization.

Table 1: Demographic Profile of Group 1 (Potential Mentees)

Features		Frequency	Percentage (%)
Year-ofbirth	Baby Boomers (1946-1964)	7	14.0%
	Generation X (1965-1979)	43	86.0%
	Total	50	100.0%
Gender	Female	13	26.0%
	Male	37	74.0%
	Total	50	100.0%

Group 2 (Potential Mentors): This group includes 50 people who could take on the roles of mentors if a reverse mentoring program is carried out in their respective organizations. Data was gathered from individuals of the generations– Millennial and Generation Z, not employed in a managerial level job in their organization.

Table 2: Demographic Profile of Group 2 (Potential Mentors)

Features		Frequency	Percentage (%)
Year-of birth	Millennial (1980-1994)	39	22.0%
	Generation Z (1995-2012)	11	78.0%
	Total	50	100.0%
Gender	Female	36	72.0%
	Male	14	28.0%
	Total	50	100.0%

Data Analysis: For determining the individual readiness of potential mentees and mentors over-all mean scores and correlation were calculated using SPSS. In order to ascertain the significance of difference in the individual readiness of both groups, an independent sample z-test was calculated.

7. ANALYSIS

The data collected is analyzed in alignment with the established objectives:

I. INDIVIDUAL READINESS OF POTENTIAL MENTEES:

The individual readiness of potential mentees is studied from the data collected from Group 1. For the study, a scale was developed to measure individual readiness based on the conceptual model. The scale consisted of factors that are likely to influence the individual readiness of potential mentees and measured what is their readiness after considering those factors. Cronbach's Alpha for the six items on the scale is 0.857, indicating good internal consistency and reliability.

Table 3: Individual readiness of potential mentees toward reverse mentoring program

Factors Influencing Individual Readiness	1		2		3		4		5		Total	Mean	Individual Readiness
	F	%	F	%	F	%	F	%	F	%			
Attitude	1	2.0	0	0.0	1	2.0	11	22.0	37	74.0	50	4.66	Positive
Perceived value	0	0.0	2	4.0	1	2.0	25	50.0	22	44.0	50	4.34	Positive
Desire to learn digital skills	1	2.0	0	0.0	4	8.0	13	26.0	32	64.0	50	4.50	Positive
Desire to close generational gap	0	0.0	0	0.0	5	10.0	20	40.0	25	50.0	50	4.40	Positive
Considering role reversal	1	2.0	1	2.0	4	8.0	17	34.0	27	54.0	50	4.36	Positive
Considering power distance	1	2.0	1	2.0	7	14.0	14	28.0	27	54.0	50	4.30	Positive
Overall Mean Score												4.43	Positive

1.0-2.4 (negative), 2.5-3.4 (neutral), 3.5-5.0 (positive)

From the table, it can be concluded that the individual readiness of Group 1 (potentialmentees) is positive with an overall mean score of 4.43. When asked how excited they wereto learn fresh perspectives from young mentors, a high mean score of 4.66 was recorded which indicated a high level of positive attitude towards reverse mentoring programs. Comparatively, lowest mean score was recorded for their readiness considering power distance– however it was positive nonetheless. In short, senior executives working in the Thrissur district exhibited a high degree of positive individual readiness toward the potential implementation of reverse mentoring programs in their respective organizations.

However, the study also found that there is a moderate degree of positive correlation of 0.486 between individual readiness and the skill qualifications of mentors. Older mentees would be ready to participate in a reverse mentoring program only if they are sufficiently satisfied that the young mentors are capable of imparting knowledge in the areas required. Therefore, skill qualifications can be concluded as a condition for the individual readiness of senior employees toward reverse mentoring programs, thereby reaffirming the finding of Chaudhuri et al.

II. INDIVIDUAL READINESS OF POTENTIAL MENTORS:

The individual readiness of potential mentors is studied from the data gathered from Group 2.A different scale is developed for studying the individual readiness of potential mentors, having only a small variation from that of the previous scale. Cronbach’s Alpha for the six items on the scale is 0.779, indicating good internal consistency and reliability.

Table 4: Individual readiness of potential mentors towards reverse mentoring program

Factors Influencing Individual Readiness	1		2		3		4		5		Total	Mean	Individual Readiness
	F	%	F	%	F	%	F	%	F	%			
Attitude	1	2.0	5	10.0	13	26.0	14	28.0	17	34.0	50	3.82	Positive
Perceived value	0	0.0	3	6.0	17	34.0	9	18.0	21	42.0	50	3.96	Positive
Desire to enhance communication and leadership skills	0	0.0	6	12.0	9	18.0	16	32.0	19	38.0	50	3.96	Positive
Desire to close generational gap	2	4.0	5	10.0	12	24.0	21	42.0	10	20.0	50	3.64	Positive
Considering role reversal	1	2.0	0	0.0	18	36.0	20	40.0	11	22.0	50	3.80	Positive
Considering power distance	0	0.0	4	8.0	11	22.0	26	52.0	9	18.0	50	3.80	Positive
Overall Mean Score												3.83	Positive

1.0-2.4 (negative), 2.5-3.4 (neutral), 3.5-5.0 (positive)

Based on the table it is evident that the individual readiness of the potential mentors is positive with an overall mean score of 3.83. It can be concluded that the cost-benefit analysis conducted by the potential mentors indicated a high perceived value for the reverse mentoring program complemented by their great desire to enhance communication and leadership skills. The lowest

mean score was recorded for the young employees’ desire to close generation gap in workplace. In summary, young employees of Thrissur district demonstrated significant readiness for the potential adoption of reverse mentoring programs within their organizations, showcasing a strong positive inclination.

III. DIFFERENCE IN THE INDIVIDUAL READINESS OF POTENTIAL MENTEES AND POTENTIAL MENTORS The mean scores of data gathered from Group 1 and Group 2 are compared to analyze if there is any significant difference in the level of individual readiness showcased by both the group towards the future participation in a reverse mentoring program. The following hypotheses are determined to achieve the objective:

- H_0 : There is no significant difference in the individual readiness of potential mentees and potential mentors.
- H_1 : There is significant difference in the individual readiness of potential mentees and potential mentors.

Table 5: Difference in the Individual Readiness of Potential Mentees and Potential Mentors

Sl. No.	Factors Influencing Individual Readiness	Potential Mentees(Group 1)	Potential Mentors(Group 2)
		MEAN	MEAN
1.	Attitude	4.66	3.82
2.	Perceived value	4.34	3.96
3.	Desire to learn digital skills	4.50	nil
	Desire to enhance communication and leadership skills	nil	3.96
4.	Desire to close generational gap	4.40	3.64
5.	Considering role reversal	4.36	3.80
6.	Considering power distance	4.30	3.80
OVERALL MEAN SCORE		4.43	3.83
STANDARD DEVIATION		0.60531	0.67553
Z-SCORE		4.650897	
P-VALUE (TWO-TAILED)		0.000003	

It can be inferred from the table given above (see Table 5) that the overall mean score of Group 1 is greater than that of Group 2. The significance of the difference in the mean scores of both groups is tested using a z-test. The p-value arrived at by doing the z-test is 0.000003, which is less than the significance level of 0.05. Hence, the null hypothesis is rejected and the alternate hypothesis is accepted. i.e., there is a significant difference in the individual readiness of potential mentees and potential mentors.

Therefore, it can be concluded that the individual readiness of both groups is significantly different, with potential mentees showing more positive readiness compared to the potential mentor group.

8. LIMITATIONS OF THE STUDY

The findings of this study need to be considered within the context of the following limitations:

- The sample size of the population is $50 + 50 = 100$ to represent the whole of the Thrissur district which has an estimated working population of more than 1 lakh (Census India, 2011).
- This study is solely based on the scale developed based on the theoretical framework and review of the literature. There may be other factors that influence the individual readiness towards reverse mentoring too.
- The findings of the study rely exclusively on a particular geographic region, thereby susceptible to the cultural factors specific to that area. Consequently, they may not be applicable for making broad generalizations.

9. FINDINGS

The main findings of the study are as follows:

- The individual readiness of senior executives towards the future implementation of a reverse mentoring program in their respective places of work is found to be positive. They showed a highly positive attitude towards learning from young mentors to improve their skills and expand their horizons.
- However, it was found that the individual readiness of senior executives to participate as a mentee depends on the skill qualifications of their younger mentors. Therefore, the conceptual model can be modified to include the skill qualifications of their future mentors as a condition that influences the overall individual readiness of potential mentees (see Fig. 2)

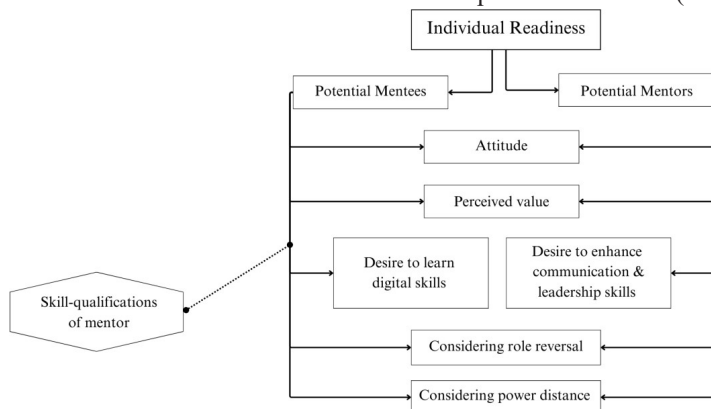


Figure 2: Dual-Perspective Conceptual Model of Factors Influencing Individual Readiness (Modified)

- Young employees also expressed positive individual readiness towards reverse mentoring programs. They exhibited a strong desire to enhance their communication and leadership skills through this program and believed that initiative would be highly valuable for them.
- Individual readiness of both the groups was found to be positive even after considering the role reversal and power distances involved in a reverse mentoring program into consideration.

- It was also found that the individual readiness of both groups differed significantly. Compared to potential mentors, a highly positive state of individual readiness was exhibited by the potential mentees towards this initiative. This shows a heightened enthusiasm on the part of senior executives and a subtle reluctance on the part of younger employees to engage in reverse mentoring initiatives.

10. CONCLUSION

Reverse mentoring is a tool that has the strength to anchor the associated intergenerational collaboration towards the overall increase in organizational productivity, serving as a powerful catalyst for innovation and the development of a more inclusive and dynamic workplace. The HR departments should undertake measures to implement this initiative as a part of their skill development programs, with efficient planning and most importantly, proper mentor-mentee matches. By actually partaking in reverse mentoring programs, the slight hesitancy of the younger generation towards this concept would fade away for they would undoubtedly gain much more than just honing their communication skills.

Future research may focus on the three other levels of readiness as propounded by Chaudhuri et al., (2022)–dyadic, organizational, and national-cultural. Further studies can also explore the causes of hesitation among the young workforce towards reverse mentoring and how reverse mentoring can be used as an effective tool to ensure their engagement.

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A STUDY ON THE RECRUITMENT PROCESS IN A RECRUITMENT CONSULTING FIRMS

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ABSTRACT

This study aimed to examine the recruitment process in a recruitment consulting firm and identify the critical factors that influence its success. The study employed a descriptive research design and incorporated both primary and secondary data sources. The consulting firm sources and screens candidates effectively using a variety of recruitment tools, including social media platforms, job boards, and applicant tracking systems. The consultants can conduct virtual interviews thanks to the use of technology, which also saves time and money. The study also discovered that the success of the hiring process is greatly influenced by the skills and knowledge of the consultants. The study identified several challenges faced by the consulting firm in the recruitment process, such as the shortage of suitable candidates in specific industries and regions. The consultants must adopt innovative sourcing strategies and explore untapped talent pools to overcome this challenge. In conclusion, the recruitment process in a recruitment consulting firm involves several stages and factors that influence its success. The study found that the quality of the job description, the use of technology, and the consultants' skills and expertise are critical factors in the success of the recruitment process. The study's conclusions can be applied to enhance the consulting company's hiring procedure and offer guidance to other hiring consulting firms.

Keywords: recruitment, consulting firms, recruitment tools, innovative sourcing

INTRODUCTION

Recruitment process is a critical aspect of any organization that aims to hire skilled and competent employees. A recruitment consulting firm plays a vital role in this process by assisting companies to find the right candidates for various positions. The recruitment process is not just about posting job openings and reviewing resumes; it is a comprehensive process that involves sourcing, screening, and selecting the right candidates. In this study, we delve into the recruitment process of a recruitment consulting firm, analyzing its various components and evaluating its effectiveness. By examining the firm's recruitment process, we aim to provide insights into best practices and identify areas for improvement. This report will be beneficial to recruitment consulting firms, HR professionals, and organizations looking to improve their recruitment process.

REVIEW OF LITERATURE

Adeku Salihu OHIANI and Oluyemi Theophilus Adeosun (2020)¹. The purpose of the study is to investigate the firm's perspective on hiring and what they hope to achieve during the selection and hiring processes. All things considered, employers have high standards for applicants looking to fill open positions at different times. This study revealed that companies can use job security, salary,

brand recognition, and referrals as key differentiators in luring and hiring top talent. One of the main components thought to be essential for drawing in and hiring top talent is digitization. Techniques like using traditional and social media as well as online and in-person interviews have shown to be helpful in choosing talented candidates. It appears that the study discovered a connection between the respondent's opinions and the network theory, which provides an overview of interactions within an organization. Many human resources managers use their connections with coworkers and social media to their advantage in an effort to draw in top talent. Findings that support the equity theory also show that attracting and keeping talented workers depends on factors like employee compensation and fairness.

J Entrepren Organiz Manag, Chungyalpa and Karishma (2016)². This essay looks at the current trends in hiring and selecting as well as the hiring and selection process itself. There are three sections in the paper. The recruitment and selection procedure is explained in its entirety in the first section. It looks at and defines the different stages and substages that make up hiring and choosing. The best practices related to the hiring and selection process are examined in the second section. The most recent trends in hiring and choosing are included in the concluding section. Selecting and hiring the best and most qualified talent becomes even more crucial as firm competition rises. In the past, employers have mostly relied on potential employees to locate the company; however, head hunting is now a proactive HR department function. Employers must not only find new hires but also keep their current workforce.

¹Oluoyemi Theophilus Adeosun & Adeku Salihu OHIANI (2020). Attracting and recruiting quality talent: firm perspectives, <https://www.emerald.com/insight/2633-0091.html>

²Chungyalpa and Karishma & J Entrepren Organiz Manag (2016), Best Practices and Emerging Trends in Recruitment and Selection, *Journal of Entrepreneurship & Organization Management*

Kanchana V, S. Vasantha (2013)³ By identifying the real candidate screening process, the study focuses on the screening process in consulting firms. The primary goal of the study is to determine the effectiveness of the screening process used by recruitment consulting firms and to offer recommendations for future job seekers and the firm to improve their chances of being selected. This article helps the businesses improve their screening procedures. An assessment of the screening procedure that has been carried out aids the companies in identifying high caliber candidates who precisely meet the job specifications provided by clients.

³ Kanchana V & S. Vasantha (2013). Recruitment- screening process, with special reference to HR Consulting firms, Chennai. *International Journal of Human Resource Management and Research (IJHRMR)* ISSN 2249-6874 Vol. 3, Issue 4, Oct 2013, 41-48

⁴ Neeraj Kumari (2012). A Study of the Recruitment and Selection Process: SMC Global, Industrial Engineering Letters www.iiste.org ISSN 2224-6096 (print) ISSN 2225-0581 (online) Vol 2, No.1, 2012.

⁵ Valery Yakubovich (2006), Stages of the Recruitment Process and the Referrer's Performance Effect published by University of Pennsylvania

Neeraj Kumari (2012)⁴ Finding common recruitment and selection procedures used by companies as well as analyzing the impact of these procedures on organizational results are the key goals. According to the study, obtaining references through networking and references is the most effective

way to find candidates among the different methods available. In this industry, hiring is a continuous process, so in order to keep up with demand, new and creative approaches must be developed. The company ought to prioritize consistent long-term performance over sporadic results.

Valery Yakubovich (2006)⁵ This study aims to predict that an applicant's chances of getting hired increase with the performance of the person who referred them, and that a referral's chances of getting hired increase with the job because the company treats high-performing and non-high-performing worker referrals equally, but rejects low-performing worker referrals at a higher rate than it does non-referrals. It is discussed how the study adds to the body of knowledge on social networks in labor markets.

Roselius, Kleiner (2000)⁶ has found that a significant amount of effort is put into finding candidates by both talent management and management provides advisors to help recruit staff, especially the right people for the right positions. This offers the best recommendation for selecting the best candidate and also helps to involve the technique in an extremely systematic way.

⁶ Roselius, W., Kleiner, B.H., 2000. How to hire employees effectively. *Management Research News* 23, 17–23.

⁷ Flippo, E.B., 1966. *Principles of personnel management*.

Flippo (1966)⁷ To put it another way, selection and recruiting are two independent processes that cannot exist separately. The recruitment process, according to him, is “a process of searching for prospective employees and encouraging and encouraging them to apply for jobs in an organization.” They are significant members of the organization and differ greatly from one another. Finding out how applicants fit the true or anticipated requirements for open positions in an organization is helpful. It serves as a conduit for job seekers and employers.

OBJECTIVES OF THE STUDY

Primary Objective:

This project's main goal is to research the hiring process in order to identify the best methods for sourcing and screening candidates for the recruitment consulting business.

Secondary Objective:

- To study about the modern sources of recruitment process.
- To research crucial screening methods used by recruitment advisory firms.
- To ascertain which methods of hiring and choosing are most successful.

RESEARCH METHODOLOGY

Primary and secondary data collection is the project's research methodology. Questions on the primary data are gathered through these means. Websites are used to gather the study's secondary data.

1. RESEARCH DESIGN

The following research design is used for analysis of the data collected from the respondents

- **Exploratory research design**
- **Survey research design**

1. Exploratory research design

The experimental research design is particularly advantageous in examining the impact of various factors on a given situation, rendering it a highly versatile design type. The experimental research design employs the scientific method, encompassing various components such as:

The hypothesis in a research study is a declarative statement that articulates the anticipated findings or outcomes of the investigation.

The null hypothesis is a statistical proposition that posits the absence of any difference between certain attributes of a population or the process generating the data.

2. Survey research design:

Survey research designs are also widely used by researchers. Surveys are a useful tool for directly collecting data from your sample population. Among the survey kinds are:

Instruments used for information gathering or collection are known as research instruments. The following are the study's instruments:

- Direct questions
- Close end questions
- Dichotomous questions
- Multiple choice questions

Direct questions

Simply put, direct questions are what their names suggest. They request the desired information directly. But how a response is interpreted is also related to how direct the question is.

Close end questions

These types of questions are also known as fixed alternatives questions because they involve providing the respondent with a limited set of options from which to choose the one that most closely expresses their viewpoint or attitude.

Dichotomous questions

A dichotomous question distills the problem down to its most basic form and gives the respondent a choice between only two options. The fixed alternatives include those that are true or false, agree or disagree, and yes/no.

Multiple choice questions

A question that offers more than one possible answer is referred to as multiple choice. It is therefore a compromise between dichotomous questions and free answers.

Charts

Charts are a visual representation of data that make relative positions easy to understand, something that isn't always possible with words or numbers alone.

The following charts are frequently used when presenting business data:

- Bar charts
- Pie charts

Data collection Method:

Data collection methodology covers the supply chain management of the research. Determine how data should be collected. If there will be multiple data collection source, the methodology should describe each source and the methods of making the end result. The data collection may be classified as follows:

➤ **Primary data:** This data is collected directly from the company with the help of a survey in the form of a questionnaire given and circulate among the employees on objectives to know the current status to be studied. Those data are collected by the researcher his/her are original data are to be taken as primary data. It gives us respondents opinions and attitudes.

➤ **Secondary data :** As a reference for the data analysis to explain the relationship between variables, it refers to the information already gathered from sources from research gate, google scholar, and the Shodhganga website where articles were found related to topic and objectives reported by scholars published in other sources related to this study. A literature review has been used to explain this data in the upcoming chapter.

2. SAMPLING DESIGN:

1. Sampling

Here the target population defined clearly by the researcher. Researcher should get the samples in logic and judgement. The study should set the population based of objectives. Sometimes, if total population is less than the expected one then research person have rights to take total population this type is also known as census study. But here the data was gathered on the one quadrant of the population

Usually, the population is average for the researcher to do a survey but the members chosen are minimum because of this chosen sample characterize the population.

2. Sampling method

This theory relates to Quota sampling from finite populations, the sampling probability of each member of the population becoming part of the sample during the drawing of a single sample.

Quota sampling: In this sampling technique, quota sampling, selection is done according to a predetermined standard. In this instance, the sample that is created will have the same characteristics as the entire population because it is based on certain attributes. It is a quick way to gather samples.

3. Population

Here, the researcher made to select the limited population from the overall population.

4. Sample size

Considering the type and scope of the research. A sample of fifty-two workers from different recruitment consulting firms were also subject to time constraints.

5. Sample Members

Those respondents are employees of various recruitment consulting firms.

3. SOURCE OF DATA AND DATA COLLECTION METHOD:

To carry out the research of the project, some information related to the problem considered in the project is essential and the important data collected is used for further analysis. Primary data

source and secondary data source are two ways to collect the data needed for the project.

4. TOOL FOR ANALYSIS

Here we use the SPSS Stool, Chi-square test and weighted average method for analysis from primary data collected through questionnaire by applying each one and calculating in from graphs to set hypothesis.

SPSS

IBM created SPSS Statistics, a statistical software suite for business intelligence, multivariate analysis, advanced analytics, data management, and criminal investigations. Produced for a long time by SPSS Inc., IBM purchased it in 2009. IBM SPSS Statistics is the brand name for the most recent versions (till 2015).

Uses

1. The statistical package for the social sciences is known as SPSS.
2. A variety of researchers employ it for intricate statistical data analysis.
3. The statistical analysis and management of social science data are the two main uses for the SPSS software package.

Features

1. SPSS provides users with extensive statistical tools for precise result analysis.
2. It facilitates easy access to the editing tools and data management system.
3. One tool that can assist you in designing, building, reporting, and presenting functions more visually is SPSS.
4. SPSS is simple to use, understand, and apply.

CHI-SQUARE ANALYSIS

CHI-SQUARE DEFINITION:

The chi-square test was applied in this project. This is a technique analysis that looked at the project's stated data. Analysis of the study's computed and presumptive data. Among the various significant tests created by statistics, the Chi-square test is a crucial one. Chi-square is a statistical measure used in sampling analysis to compare a variance to a theoretical variance. It is symbolically written as χ^2 (pronounced Ki-Spare).

FORMULA:

$$\chi^2 = \frac{(O - E)^2}{E^2}$$

E²

O – Observed frequency

E - Expected frequency

ANALYSIS THE CONNECTION BETWEEN USING SOCIAL MEDIA FOR RECRUITMENT AND WORK EXPERIENCE:

NULL HYPOTHESIS

H0: The use of social media for recruitment and work experience do not significantly correlate.

ALTERNATE HYPOTHESIS

H1: Utilizing social media for recruitment and work experience are significantly related.

Work Experience * Using social media for recruitment

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.408 ^a	12	.668
Likelihood Ratio	11.030	12	.526
N of Valid Cases	50		

Result:

The null hypothesis (H0) is accepted and the alternative hypothesis (H1) is rejected because the computed values are greater than the tabulated value of 0.05. It is implied that using social media for recruitment and work experience are not significantly related.

ANALYSIS THE RELATIONSHIP BETWEEN WORK INDUSTRY AND USING BEHAVIORAL INTERVIEW FOR RECRUITMENT:

NULL HYPOTHESIS

H0: The use of behavioral interviews in the hiring process and the work industry are not significantly correlated.

ALTERNATE HYPOTHESIS

H1: Work Industry and the use of behavioral interviews in hiring have a strong correlation.

Work Industry * Using behavioral interview for recruitment

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.578 ^a	24	.721
Likelihood Ratio	19.898	24	.703
N of Valid Cases	50		

Result:

The null hypothesis (H0) is accepted and the alternative hypothesis (H1) is rejected because

the computed values are greater than the tabulated value of 0.05. It is implied that using behavioral interviews for hiring has little bearing on the type of work industry.

ANALYSIS THE RELATIONSHIP BETWEEN GENDER AND PREFERRINGEMPLOYEE REFERRAL FOR RECRUITMENT:

NULL HYPOTHESIS

H0: Gender and the preference for employee referrals for hiring do not significantly correlate.

ALTERNATE HYPOTHESIS

H1: Gender and the preference for employee referrals for hiring have a substantial correlation.

Gender * Preferring Employee Referral

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.304 ^a	4	.680
Likelihood Ratio	2.676	4	.613
N of Valid Cases	50		

Result:

The null hypothesis (H0) is accepted and the alternative hypothesis (H1) is rejected because the computed values are greater than the tabulated value of 0.05. It can be deduced that there is no statistically significant correlation between gender and the preference for employee referrals for hiring.

ANALYSIS THE RELATIONSHIP BETWEEN EDUCATIONAL QUALIFICATIONAND USING PSYCHOMETRIC TESTS:

NULL HYPOTHESIS

H0: The use of psychometric tests for hiring and educational qualifications do not significantly correlate.

ALTERNATE HYPOTHESIS

H1: The use of psychometric tests in recruitment and educational qualifications are significantly correlated.

Educational Qualification * Using Psychometric Tests

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.949 ^a	8	.347
Likelihood Ratio	9.286	8	.319
N of Valid Cases	50		

Result:

The null hypothesis (H0) is accepted and the alternative hypothesis (H1) is rejected because the computed values are greater than the tabulated value of 0.05. It is implied that there is no meaningful connection between hiring practices that use psychometric tests and educational qualifications.

CONCLUSION

After completing this research, it is concluded that:

The goal of the study was to examine efficient screening methods used by consulting firms. While there is a significant amount of research on recruitment screening, it is necessary to conduct similar research periodically to understand the changing needs and effectiveness of screening processes. According to the study, consultancies continue to use conventional screening methods. Consultant recruiters draw in client companies and young talent through networking and marketing strategies. It can be difficult to determine an applicant's actual skill level and potential, but it is possible. Consultants must make an effort to challenge candidates and bring out their potential, which can lead to significant improvements in the recruitment process, ensuring that companies find the right person for the job.

Finally, some topics can be suggested for future works:

1. The impact of technology on the recruitment process: How has the use of AI, machine learning, and other technological advancements affected the recruitment process in consulting firms? What are the benefits and challenges associated with these technologies?
2. The importance of diversity and inclusion in recruitment: How do consulting firms prioritize diversity and inclusion in their recruitment efforts? What steps can firms take to ensure they are attracting and hiring a diverse pool of candidates?
3. The impact of candidate experience on recruitment: How does the candidate experience impact the recruitment process in consulting firms? What steps can firms take to ensure candidates have a positive experience throughout the recruitment process?

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GREEN HRM: A NEED FOR 21ST CENTURY

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ABSTRACT

Green HRM is the emerging topic in current scenario. Green HRM is the use of Human Resource Management policies to promote sustainable use of resources within business organizations and more generally, promote the cause of environment Sustainability. The Green HRM Consist of two essential elements they are environment friendly HR practices and preservation of knowledge capital. The objectives of the study is to explore Green Human Resource Management practices of organizations based on the existing literature especially from the secondary data of 92 employees working with selected IT Companies in White Field , Bangalore, and finding some possible green initiatives by HR Department. The major areas of the study include understanding of Green HR , practices and strategic implementation of Green HR in the organization and finally the paper suggest Some potential HR initiatives for green organizations. The present study highlights the implications of Green HRM practices on organizational effectiveness.

Keywords: *Green HRM, Environment sustainability, Employee satisfaction*

INTRODUCTION

Green Human Resource Management(Green HRM) is a recent research field that include all aspects and practices of HRM that persue the goal of environmental sustainability. The main aim of Green HRM to reconcile the goal of companies and society without compromising company goals .Green HRM can be defined as a set of policies ,practices and systems that stimulate the green behaviour of company's employee in order to create an environmentally sensitive,resource-efficient and socially responsible organization. The main focus of Green HRM practices banking industry while initiating innovative practices is optimum utilization of resources with saving time and other factors of production resulting in cost effectiveness

Green HRM consists of two essential elements environmentally friendly HR practices and presentation of knowledge capital. It entitles undertaking environment friendly initiative resulting in greater efficiency. Lower cost and better employee engagement and retention which in turn help organization. Practices and policies of Green HRM includes recruitment and job analysis, selection methods, HR operations and the performance management and learning and development.

Green HRM takes an environmental approach and aims to create a green working environment that encourage workers to perform their jobs in the most environmentally responsible manner . According to current HRM guidelines and procedures such as top management involves inspiring employee responsibility towards the environment and team spirit in this region and hiring,satisfying, inspiring self improvement and mentoring individuals in accordance with the institution aims .

THEORETICAL BACKGROUND OF GREEN HRM

Green HRM means bringing economic changes and raising the efficiency both ecological and economic while ensuring that the cost of natural resources exploitation is within the acceptable range in HRM practices. Green human resource management targets human resources to bear an environmental responsibility in their tasks, to turn them into employees who are able to develop

positive behaviors with other co-workers, to present new ideas and recommendations, and thus to enable the implementation of environmental programs. The basic target actually is to motivate employees, to turn them into environment-conscious individuals, and to improve environmental performance of the organizations.

PRACTICES OF GREEN HRM IN PRESENT SCENARIO

- Paperless office
- Turn off lights, Computer and Printer after work and on weekends.
- Mail communication.

Electronic filing.

- Encouraging use of laptop instead of desktop.
- Waste Management.
- Online recruitment.
- Video conferencing meeting.
- Paper less training.
- Performance management on basis of green practices.
- Car pooling
- Job sharing

Green Human Resource Management Practices of Organizations

Cherian and Jacob (2012) identified in their study that there are certain factors which contribute specific role in employee implementation of green principles these factors are recruitment, training, motivation and green pay/rewards in order to make sure that the organization get right employee green input and right employee green performance of job.

In this part of the paper, we briefly describe functions of HRM which are generally considered as traditional and there can be a variety of green practices under each function. The green HRM process i.e. Green recruitment, performance management and appraisal, training and development, employee relation, pay and reward and employee exit. We summaries of the existing and certain new green HRM practices under each function of green HRM.

1. Green Job Design and Analysis;

In general, job descriptions can be used to specify a number of environmental protection related task, duties and responsibilities. These days, some companies have incorporated environmental and social tasks, duties and responsibilities as far as possible in each job in order to protect the environment. In some companies, each job description includes at least one duty related to environmental protection and also specifically includes environmental responsibilities whenever and wherever applicable. Nowadays many companies have designed environmental concerned new jobs or positions in order to focus exclusively on environmental management aspects of the organizations. From the perspective of HRM, it is really a valuable initiation and practice to protect the environment. Moreover, some companies have involved in designing their existing jobs in a more environmentally friendly manner by incorporating environmental centered duties and responsibilities. These are some of the best green HRM practices which can figure out under the functions called green job design and green job analysis.

2. Green Human Resource Planning

At present, some companies engage in forecasting number of employees and types of employ-

ees, needed to implement corporate environmental management initiatives/programs/activities (e.g. ISO 14001, cleaner production, responsible care etc.). These are good practices some leading companies have adopted to manage their environmental issues. The corporate environmental management initiatives demand some new job positions and specific set of skills. Green Human Resource Planning gets required in this context. In addition these companies engage in deciding strategies to meet the forecast demand for environmental works (e.g. appointing consultants/experts to perform energy or environmental audits) and sometimes they are outsourcing. As far as existing literature is concerned, it did not clearly specify the practices under the function of Green Human Resource Planning. However, based on the observations of the industries and organizations, it is possible to identify certain Green Human Resource Planning Practices.

3. Green Recruitment

Induction for new recruits is seen to be needed to ensure they understand and approach their corporate environmental culture in a serious way. Green recruitment is process of recruiting new talent who are aware of sustainable process, environmental system and familiar with words of conservation and sustainable environment. Green recruitment make it sure that new talent are familiar with the green practices and environmental system that will support the effective environmental management within the organization (Wehrmeyer, 1996) because In the race of attracting most creative and innovative employees, companies increase their recruiting potential, hiring quality staff is the very crucial challenge in the war of talent (Renwick et al., 2013) and even companies are also know the fact that being a employer is an effective way to attract new talent. Google is a very good example of a company who adopted green recruitment few other companies are Timberland, and yes.

4. Green Selection

In the selection context, when making selection for the job vacancies some companies consider candidates considering environmental concern and interest as selection criteria. When interviewing candidates or evaluating them for selection, environmental-related questions are asked by those companies. Really, these are some of the good green selection practices. Any organization can adopt to select environmental friendly people in addition to the normal selection criteria relating to the specific duties of the job being concerned.

5. Green Training and Development

Employee training and development programs should include social and environmental issues at all levels, from technical health and safety considerations on the shop floor, to strategic sustainability issues at executive management and board level (Mandip, 2012). Green orientation programs for the newly higher employees should be an integral part of the training and development process. To sustain in the race market it is very necessary to each and every organization to change themselves with the change in the scenario and it is more important for every organization to resist that change and that resistance to change will be done by training and development. Training and development is a practice that directing a great deal of attention on development of employee skills and knowledge that relate to specific useful competencies, environmental training also prevent decline of environmental management skill, knowledge and attitudes (Zoogah 2011). Numbers of companies are providing environment training to their employees The Land Rover Group is one the example that company. The Land Rover Group provides environment training to their employees according to their job. They take regular briefings and circulate newsletters to communicate with their staff about environmental issues. They displayed Environmental sustainable development policy, key objectives and environmental practice boards at all sites. They encourage employees to come up with new ideas that reduce the cause of environmental degradation.

6. Green Performance Management

Performance management (PM) is the process by which employees are prompted to enhance their professional skills that help to achieve the organizational goals and objectives in a better way. The recognition of the corporate strategy culminates into the PM. Green performance management plays very important role in the effectiveness of green management work over passage of time because they guide employee performance to the environmental performances need by the organization (Jabbour and Santos, 2008). Firms like Tata Group of Companies have installed corporate-wide environmental performance standards (which cover on-site use, waste management, environmental audits and the reduction of waste) to measure environmental performance standards and developing green information systems and audits.

7. Green Reward Management

Compensation and reward are the major elements of HRM process, this element is the most important for maintaining employee interest to that of the organization. The reward policies are focused on attracting, retaining and motivating the employee which lead to the achievement of organizational goal (Teixeira et al., 2013) and improve the organizational commitment (Daily and Hang, 2001). Green reward management is another key function of green HRM. The sustainability of organization's environmental performance is highly dependent on the green reward management practices of the organizations. To motivate managers and non-managerial employees on corporate environmental management initiatives, green reward management has significant contributions. Organizations can practice it in two ways such as financial and non-financial. In some companies employees are financially (e.g. incentives, bonuses, cash) rewarded for their good environmental performance. In some other companies, employees are non-financially rewarded (awards/special recognitions/honors/prizes) for their good environmental performance. Dow chemical is a very good example of reward and compensation; employees were motivated and given rewards when they came up with innovative waste reduction idea.

8. Green employee Discipline Management

In this context, some companies have as a tool to self realized "discipline management" regulate employees in environmental protection activities of the organization. These companies have developed a clear set of rules and regulations which imposes/regulates employees to be concerned with environmental protection in line with environmental policy of the organizations. In such companies, if an employee violates environmental rules and regulations, disciplinary actions (warning, fining, suspension, etc.) are taken against him/her. Wehrmeyer (1996) stated explicitly that green discipline management is a pre-requisite in corporate environmental management. In ensuring green employee behavior in the workplace, organizations may need green discipline management practices to achieve the environmental management objectives and strategies of the organization.

REVIEW OF LITERATURE

Marhatta and Adhikari, (2013) and Zoogah, (2011) refer its use of HRM policies and Practices for sustainable use of resources within business organizations and generally promotes the cause of environmentalism.

Opatha and Arulrajah (2014) refers that Green HRM is the use of policies, practices, and systems in the organization that make green employees for the benefit of the individual, team, society, natural environment, and the organization. Different researchers describe Green HRM in different ways, but somehow their intentions are same for sustainability of Human resources and their environment.

Wei & Yazdanifard, (2014) Individual motivation is said to be the key driver for employees to actively engage and conduct in-role and extra-role behaviors, and as such it is expected that individual motivations for each of these types of behaviors is likely to be discordant.

Xinhua, (2015) To tackle increasing levels of both pollution and Chinese citizens' discontent with decaying air quality and polluted land and water systems, the Chinese government has embarked upon a range of reforms to address these issues. These reforms have shifted from merely responding to pollution levels to policies that seek to prevent pollution. While these initiatives being applied by the Chinese Government are commendable, they are insufficient to fully address the growing levels of harmful air, water and ground pollutants that are affecting the daily lives of the Chinese people.

Yusliza, Ramayah & Othaman, (2015) The human resource is the most important assets of an organization that plays an important role in managing the employees. The modern human resource managers have been assigned with additional responsibility of incorporating the green human resource philosophy in corporate mission statement along with human resource policies. Green human resource efforts have resulted in increased efficiencies, cost reduction, employee retention and improved productivity and also other tangible benefits. The green HR policies and practices involved in environment, social and economic balance.

OBJECTIVES OF THE STUDY

- To study the concept of Green HRM in more comprehensive manner.
- To explore Green HRM practices of organizations.
- To study the effectiveness of Green HRM practices in selected IT Companies in Whitefield , Bangalore.

RESEARCH METHODOLOGY

This study is totally based on secondary data collected from different sources. The data are generated by responsible authorities of the departments and published research by various researchers provided on their site/reports. Apart from these, data has been taken from different books , journals, research papers and other print media . By using the following keywords: Green HRM, Sustainability, Human Resource Management following these 15 articles related to the keyword search was identified. The researcher autonomously extracted data using standardized data extraction forms. The present study was undertaken to understand the practices and strategic implementation of Green HRM in the organizations.

SCOPE OF THE STUDY

To review extensive literature in the field of Green HRM to identify gap and scopes for further study . To develop a process model of green HRM from entry to exit. The purpose of going Green is to use products and methods that would not negatively impact the environment through pollution or depleting natural resources. In addition effectively efficiently while keeping the environment free from harmful products. Strategic HRM researchers argued that to achieve HR effectiveness, HR should be practiced as a whole and must be aligned with the business strategic goals, the primary means by which firms can influence and shape the skills, attitude and behaviour of individuals to do their work and thus achieve organizational goals.

LIMITATIONS OF THE STUDY

- The major constrain of the study was lack of time.
- The study was conducted only by using secondary data from the various sources
- The result of the study cannot be generalized because the data only from the small representation of entire population.

DATA ANALYSIS AND INTERPRETATION

1.Implementation of green practices in the sense of social responsibility.

The table showing implementation of green practices in the organization in the sense of social responsibility:

RESPONSE	PERCENTAGE
YES	48%
NO	52%
TOTAL	100%

While carryout this survey , we found out only few (48%) companies implemented green practices strictly within their campus as sense of responsibility towards environment. Majority responded it was helping reducing cost of the organization and so it was their driver in the following green practices.

Impact of Green HRM practices in organizational environment

RESPONSES	PERCENTAGE
EMPLOYEE MORALITY	78%
PRESERVS NATURAL RESOURCES	69%
IMPROVE RELATIONSHIP	92%
REDUCE OVERALL COSTS	88%
INCREASING COMPANY IMAGE	79%
INNOVATION AND GROWTH	83%

78% responded Green HRM practices increases employee morally.69% responded it preserves the natural resources.92% expressed it improves the relationship between stake holder, customer, supplier, employees and the media. 88% of companies said it reduces the overall cost. Majority 79% of respondents said it increases the company's image .83% responded it motivates innovation and growth and provides competitive advantage.

Activities and facilities management undertake to promote green practices.

RESPONSES	PERCENTAGE
GREEN WORKING ENVIRONMENT	52%
ENVIRONMENT FRIENDLY WORK ENVIRONMENT	61%
COMFORTABLE SPACE	54%
CAMPAINGNS	66%

52% Of employees responded their management provides green working environment. 61%, 54% responded environmental friendly working environment, comfortable space for having tea and lunch respectively. 66% responded organization is conducting green campaigns for employee and society awareness regarding company green practices.

Barriers for effective green practices.

RESPONSES	PERCENTAGES
LACK OF SUPPORT BY EMPLOYEES	19%
IMPLEMENTATION COST	32%
LACK OF SUPPORT FROM MANAGEMENT	28%
LACK OF SUPPORT FROM GOVERNMENT	18%

19% feels that lack of support by employees is the biggest barrier for effective green practices. 32% feels cost implementing the programme is a major barrier for effective green practices. 28% and 18% feels lack of support from management and government respectively for effective green practices

Organizational initiatives:

- **Green rewards and incentives:** About 21% of employees reveals that organization provides green rewards and incentives for employees.
- **Green commuting habits:** 22%, 39% responded for video conferencing, telecommunicating as green commuting habits.

FINDINGS

- The managers and employers are take much initiatives to implement Green HRM in their organizations.
- Green HR initiatives results higher productivity and build a developmental climate for business it would add value to their brand image.
- Unions and employees are more free in their working environment .adopting Green HRM policies and practices that help, safeguard and enhance worker health and well -being.
- Less than 50% of companies implementing Green practices as sense of responsibility towards environment.
- Green HRM practices strengthen the relationship among the co-workers.
- The main barrier of implementing Green HRM is lack of support from the top management and government.

SUGGESTION

- Use centralize document storage system within the organization (paper use can be reduced by 20% or more in most offices)
- Recognise and giving rewards to those employees who make good relationship within the organization.
- Offer employee training and development opportunities with updated skills. That make them more confident and dedicated.
- Improve your employee recruitment and selection process and ask feedback from candidates on your recruitment process and implement their suggestions for improvement.
- Government should take initiatives to ensure the well-being of the private enterprise employees.

CONCLUSION

The aim of this paper is to provide a knowledge how Green HRM can help or affects the employee and their organization practices and behavior against environment. Green HRM encompasses all activities aimed at helping an organization carry out its agenda for environment management to reduce its carbon footprint in areas concerns on boarding and acquisition of human resources, their induction, performance appraisal & management, training and development and pay and reward management. This is only possible by the effective implementation of green HRM within the organization. It makes intuitive sense that offering Green HRM practices would attract individuals to an organization and by implementing these practices would result in improving employee attitudes and behaviors within the organization. Future research needs to provide empirical evidence while the Green HRM deliver the positive outcomes. Future research needs to provide empirical evidence while the Green HRM deliver the positive outcomes. Green HRM can enhance corporate image and brand. Green HR will play an important role in making the employees aware of and concerned for preservation of natural resources and contribute in pollution control, waste management and manufacture of eco-friendly products. The proposed process model will help the practicing managers and future researchers follow green HRM techniques. The present study also proposes future researchers to fill the gap in the existing literatures by conducting empirical studies such as Green HRM practices in the manufacturing or service organizations.

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ATTITUDES AND PRACTICES OF HOUSEHOLDS TOWARDS WASTE MANAGEMENT

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ABSTRACT

Proper waste management is a major concern of public health. It is necessary to create positive behavioural changes towards waste management among public in order to control diseases. Waste lying in public places and houses it create issues for everyone mentally and physically. Wastes are generated in different types. It includes municipal solid waste(MSW), industrial waste, agricultural waste and hazardous waste. The purpose of this study is to determine the attitude and practices of households towards domestic waste management. The study is undertaken in Malappuram district in Kerala. Both primary and secondary data are used. Secondary data collected from various secondary sources i.e. published articles, journals, reports, books and websites, Primary data collected with the help of interview schedule among rural households. Organic wastes use for utilizing nutrient's, Conservation of energy, reduction of fertilizers cost, reduction of soil pollution and sustainability of plant growth. And the all other wastes are mainly controlling doing with "Reduce, Reuse, Recycle, Rethink, Redefine ".The uncontrolled of the wastes is making prosperity poorly. Rapped economic growth far to create inadequate waste collect infrastructure rapped urbanization trends are the hardly in the all area. In house hold wastes are completely spoiling the reason is improper waste separation facilities. The proper infrastructure that would be facilities recycling people are willing to invest more time than can be purely by saving on waste management in household.

Key words: waste management, municipal solid waste, organic waste

INTRODUCTION

Waste management is the process of collecting, transporting, processing or disposing, managing and monitoring of waste materials. The term usually relates to materials produced by human activity and the process is generally undertaken to reduce their effect on health, and the environment. Waste should be properly stored before disposal. Storage is the action of accumulating rubbish before disposal. There are different kinds of wastes like kitchen waste, garden waste, leather, rubber, glass, plastics, electronic waste, etc. E-waste is a common terminology used for electronic equipment such as TV, refrigerators, telephones, air conditioners, computers, mobile phones etc that is not in use now by the current user. Hazardous wastes are those wastes which can cause a hazard to the ecological or environmental balance.

Waste management stands at the forefront of contemporary environmental challenges, with profound implications for the health of our planet and future generations. As urbanization accelerates and consumerism burgeons, the volume of household waste generated has reached unprecedented levels. Within this context, understanding the attitudes and practices of households towards waste management becomes paramount in crafting sustainable solutions. At the nexus of environmental science, sociology, and public policy lies the intricate relationship between individuals and the waste they produce. The attitudes held by households play a pivotal role in shaping waste management

practices, influencing choices that ripple through communities and reverberate globally. This study aims on attitude and practices of households towards waste management.

REVIEW OF LITERATURE

E.O. Longe and O.O. Longe, E.F.Ukpebor (2009) have studied on People's perception on household solid waste management in ojo local government area in Nigeria delves into household solid waste management in Ojo Local Government Area, Lagos State, Nigeria. It scrutinizes waste management structures, perceptions, attitudes, and behaviors among residents, emphasizing socio-economic strata differences. It highlights the challenges faced by local authorities in waste management due to financial constraints, inadequate infrastructure, and ineffective collection systems. It suggests improvements like better monitoring of service providers, sustainable environmental education, and the need for a professional approach to waste management.

J. Momoh and D.H. Oladebeye have studied assessment of awareness, attitude and willingness of people to participate in household solid waste recycling programme in ado-ekiti, nigeria (2010). The study focuses on the assessment of awareness, attitudes, and willingness of individuals to participate in a household solid waste recycling program (APBWRI) in Ado-Ekiti. It points out that despite the evident problems caused by poor waste management practices, awareness of recycling initiatives among residents remains notably low. It highlights the importance of educating and engaging the public to foster a culture of recycling and responsible waste management. The study's findings reveal that while there is a positive attitude toward recycling among respondents, the willingness to actively participate in the recycling program is not solely determined by socio-demographic or socio-economic factors. Middle-aged individuals and households of medium size showed more willingness to participate.

VidyaViswanath ,Aneeb K Jose and Dr. Manoj P K have studied on Scientific approach to waste management: A case study of Ernakulam city in Kerala .The mainly too appraise in general the growing need for proper SWM in India with special reference to Kerala State and that too with a focus on Ernakulam city. The study is conducted to assess the SWM practices in Ernakulam. It involves the evaluation of facilities connected with collection, transportation, storage and disposal of solid wastes in different parts of Ernakulum District . It aims at finding the Manpower needs for collection, transportation and routing Of vehicles for disposal of solid wastes in the city.The optimum waste collection infrastructure aims at Establishing the required level of services for collection and transportation of solid waste in the city.

Vasiliki Aitsidou and Anastasios Michailidis(2019) have studied on Household food Waste management: Socio-ecological dimensions “In this paper delves into the socio-ecological dimensions of household food waste (HFW) management, primarily focusing on respondents' socio-ecological consciousness (SEC) regarding HFW. The study highlights the critical role of SEC in understanding and addressing HFW, emphasizing its multi-dimensional nature influenced by socio-demographic factors like age, education, household structure, and past rural experiences. Moreover, it emphasizes the discrepancy between existing knowledge and problematic perceptions among respondents regarding HFW, suggesting a disconnect between their awareness of the issue and their actual behaviors and attitudes

RESEARCH PROBLEM

Despite increasing awareness about the environmental impact of improper waste disposal, there

exists a significant gap between the positive attitudes expressed by households towards responsible waste management and the actual practices observed in daily life. This disconnection raises a critical research problem: What factors contribute to the misalignment between stated attitudes and observed practices among households in waste management?.

OBJECTIVES OF THE STUDY

- ❖ To assessing the level of awareness among households regarding waste management practices.
- ❖ To understanding the attitudes and perceptions of households towards waste management
- ❖ To analyzing the common waste disposal practices adopted by households.
- ❖ To identifying the barriers that influence household behaviours related to waste management.

HYPOTHESIS

- ❖ There is no significant difference in the awareness among households regarding waste management practices with regard to area wise.
- ❖ There is no significant difference in the awareness among households regarding waste management practices with regard to qualification

RESEARCH METHODOLOGY

The study was conducted in a descriptive style using both secondary and primary data. Secondary data collected from various secondary sources i.e. published articles, journals, reports, books and websites, Primary data collected with the help of interview schedule conducted among the households. Area of the study is confined to Malappuram District. 120 respondents are selected by using convenience sampling. The data which were collected from the respondents were analyzed by using mean, standard deviation, independent sample t test and one way ANOVA.

ANALYSIS AND RESULTS

Demographic Profile of the Respondents

The profile of the sample respondents explaining demographic features is presented in the following table:

Table 1-Demographic Profile of the Respondents

Variable	Classifications	Frequency	Percentage
Gender	Male	40	33.33
	Female	80	66.67
	Total	120	100
Area	Rural	60	50
	Urban	60	50
	Total	120	100
Age	Less than 30	20	16.66
	31-50	60	50
	Above 51	40	33.37
	Total	120	100

Education	Secondary	46	38.33
	Higher secondary	37	30.83
	Degree	15	12.5
	Postgraduate	12	10
	Professional	10	8.34
	Total	120	100
Occupation	Government employee	12	10
	Private employee	24	20
	Business	11	9.16
	Professional	10	8.34
	Self employed	30	25
	House wife	33	27.5
	Total	120	100

Source: Survey data

Above table shows that most of the respondents are female (66.67).50% were in the age group of 30 to 50years of age and only 20% was in the age group of more than 51 years. Out of the total respondents 38.83% of the respondents were qualified up to SSLC and only 8.34% are professional.

Table 2-Awareness on waste management practices

Waste management practices	Min	Max	Mean	S.D
Collection	1.00	5.00	4.08	0.861
Separation	1.00	5.00	3.51	0.916
Recycling	1.00	5.00	3.03	1.104
Composting	1.00	5.00	3.27	0.906
Landfill disposal	1.00	5.00	3.19	.914
Hazardous waste disposal	1.00	5.00	2.51	1.093
Electronic waste disposal	1.00	5.00	2.82	1.140

Most of the respondents are aware on collection (4.08),separation (3.51), composting (3.27) and landfill disposal(3.19).

For the purpose of comparing the awareness with regard to area, the following hypotheses are formulated:

- There is no significant difference in the awareness among households regarding waste management practices with regard to area wise.

The Independent sample t-test was used for testing the hypothesis and the result is presented in following table.

Table 3-Area wise Comparison of Awareness on Waste management practices

Area	N	Mean	S.D	t value	p value
Rural	60	3.2619	.95939	3.498	.001*
Urban	60	3.8393	.94395		

Source: Survey data

* Significant at 0.05 levels

Above table shows that t value and p-value of awareness are 3.498 and .001. Hence there is a significant difference in the awareness among rural and urban respondents about waste management practices. The null hypothesis, there is no significant difference in the awareness among households regarding waste management practices with regard to area wise was rejected at 5 percent level of significance. The mean score of awareness in urban area is 3.8393 with standard deviation .94395, which is more than rural respondents' awareness mean score 3.2619 with standard deviation .95939. Therefore, urban respondents are highly aware on waste management practices than rural respondents.

One Way ANOVA test was used and following hypotheses have been formulated to test whether this difference is statistically significant or not.

- ❖ There is no significant difference in the awareness among households regarding waste management practices with regard to qualification

Table 4-Education wise Comparison of Awareness on Waste management practices

Education	N	Mean	S.D	F value	p value
Secondary	46	3.36	.942	3.374	.002*
Higher Secondary	37	3.62	.964		
Degree	15	3.40	.984		
Post Graduate	12	3.99	1.016		
Professional	10	4.12	.938		

Source: Survey data

* Significant at 0.05 levels

It is also seen that there is significant difference in the awareness among respondents having different educational qualifications. The result of ANOVA test shows that F value (3.374) and pvalue (.002) are significant at 5 percent level. The mean score of awareness on the bases of educational qualification shows that the mean score of professional (4.12) and post graduate (3.99) which are higher than the other educational qualifications. It reveals that the respondents of higher educational qualification are highly aware on waste management practices and respondents of lower educational qualification are less aware..

Table 5-Sources are influenced to get information on Waste management practices

Sources	Mean	Std. Deviation
Local government resources	3.7417	.97443
Online sources/websites	2.8667	1.02024
Social media	3.2167	.88102
Community events	3.4333	1.12072
Educational institutions	3.2750	1.06086

Source: Survey data

From the table, it shows that the local government resources (3.7417) and community events (3.4333) are more influenced among respondents to get information on waste management practices

Table 6-Attitudes of households towards waste management

	Min	Max	Mean	S.D
Solid waste management				
waste management awareness class should be held in community	1.00	5.00	3.51	0.916
Environmental education should be taught in school	1.00	5.00	3.03	1.104
Household should be clean and free of waste	1.00	5.00	3.28	1.005
I should play an important role in reducing household waste generation	1.00	5.00	2.51	1.093
The purchase decision I make can increase or decrease the amount of garbage my household must get rid off	1.00	5.00	2.82	1.140
I don't think that burning garbage can be bad for my health and others health	1.00	5.00	2.75	1.066
people throw garbage in streets as they have no other means of getting rid of garbage	1.00	5.00	3.27	0.906
Regular collection of garbage is only solution to garbage problem	1.00	5.00	4.08	0.861
Generated waste can be managed at source/household itself	1.00	5.00	4.14	0.815
Willingness to Participate				
composting	1.00	5.00	4.08	0.861
recycling	1.00	5.00	3.99	1.016
Willingness to segregate materials for collection	1.00	5.00	3.36	.942
Willingness to pay for pick up for recyclable materials	1.00	5.00	3.28	1.005
willingness to give away plastic bottles for recycling	1.00	5.00	3.40	.984
willingness to buy lesser amount of throw away products	1.00	5.00	3.42	.969
willingness to gather more information on reduction of garbage	1.00	5.00	3.23	.771
Composting				
takes up a lot of time	1.00	5.00	4.14	.815
takes a lot of effort	1.00	5.00	3.19	.914
demand high degree of technical knowledge	1.00	5.00	2.82	.903
requires lot of space	1.00	5.00	2.53	.961
not worthwhile unless there is lot of waste	1.00	5.00	2.74	.954

Considering the table, it is observed that respondents attitude towards waste management, Most of the respondents attitude on solid waste management are regular collection of garbage is only solution to garbage problem (4.08) and generated waste can be managed at source/household itself (4.14). More respondents are willingness to participate in composting (4.08) and recycling (3.99) for household waste management. Attitude of respondents on composting that takes up a lot of time (4.14) and takes a lot of effort (3.19)

Table 7-Waste disposal methods currently adopt at home

Methods	Frequency	Percentage
Trash bin	80	66.66
Recycling bin	60	50
Composting	40	33.33
Donating	10	8.33
Hazardous waste disposal	0	0
Electronic waste disposal	8	6.67

Most of the respondents are currently adopted waste disposal methods are trash bin (66.66), recycling bin(50) and composting(33.33).Only 6.67 percent of respondents are using electronic waste disposal and no one using hazardous waste disposal.

Table 8-Barriers that prevent from adopting more effective waste management practices at home

Barriers	Mean	S.D	Rank
Lack of awareness	2.8000	.88498	4
Limited access to recycling facilities	4.2417	.99575	1
Time constraints	3.8333	.91057	2
Inconvenience	3.3583	.96837	3
Lack of motivation	2.6167	.88102	5

Source: Survey data

Table 8 shows that, limited access to recycling facilities and time constraints are major barriers faced by respondents in adopting more effective waste management practices at home.

CONCLUSION

The study on attitudes and practices of households towards waste management provides a comprehensive understanding of the current dynamics in this crucial area. Most of the respondents are aware on collection, separation, composting and landfill disposal. The study also emphasizes the role of education and awareness in waste management practices. Most of the respondents attitude on solid waste management that regular collection of garbage is only solution to garbage problem and generated waste can be managed at source/household itself. More respondents are willingness to participate in composting and recycling for household waste management. Attitude of respondents on composting that takes up a lot of time and takes a lot of effort. Increasing public knowledge about the environmental impact of improper waste disposal and promoting the benefits of sustainable practices can be instrumental in fostering a collective sense of responsibility. This suggests that alongside individual efforts, there is a critical need for governmental and institutional interventions, including the development of efficient waste collection systems, recycling facilities, and the implementation of regulations that incentivize responsible waste management.

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BEHAVIOURAL FINANCE PERSPECTIVE: EFFECT OF ANCHORING BIAS ON THE RATIONALITY OF INVESTORS

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ABSTRACT

Investors were assumed to be rational in the conventional finance theories. But in reality, investors behave normally and would find investments by trial-and-error method. They are guided by emotions and past instincts which leads to discrepancies between market price and fundamental values. In order to understand the change in world of investments, it is essential to examine the new phenomenon from behavioural finance perspective. When people tend to make illogical decisions not based on true information and analysis, errors are occurred and it results in major losses. The purpose of this study is to analyze the impact of behavioural bias, specifically anchoring bias on the rationality of first-time and experienced investors. When anchoring, people base decisions or estimates on events or values known to them, even though these facts may have no bearing on the actual event or value. The study is descriptive in nature and is limited to this bias with respect to investors who invest for the first time and those who are have done investments several times. The study investigates how the bias interact and amplify each other, creating a complex web of irrational behaviours within financial markets. The findings and suggestions are helpful to the financial analysts, investors and the policymakers to make targeted interventions and educational efforts to promote greater awareness and resilience against these pervasive biases in the realm of investment.

Keywords: Behavioural finance, anchoring bias, rationality

INTRODUCTION

The foundation base of traditional finance is efficient market hypothesis. As per this hypothesis, investors have access to market information and prices of assets and also investors considered to be rational. Even though the discipline of modern finance has grown progressively, it is still difficult to explain on the scientific grounds that why people behave non- rationally while dealing in money. While traditional finance assumes people rationalize and enhance their financial decisions, behaviour finance includes the relevance of what investors should do and blend the basics of traditional finance with what people do in terms of their investment decisions. The behavioural finance approach replaces the traditional rationality hypothesis and asserting that behavioural biases influence individuals.

Behavioural finance is a study of investor market behaviour that derives from psychological principles of decision making, rather than rational and objective behaviour of an investor based on the utility theory. Utility theory postulates that investors would try to maximize the returns and minimize the risks to maximize their utility value from investing. But many observations of market movements have shown that this type of rational behaviour does not fully explain the movement of prices, and the selling and buying of shares as actually observed. Behavioural finance lays emphasis on investor behavioural biases, thus making financial decisions less than fully rational. This leads to various market anomalies. Behavioural finance promises to make economic models better at explaining (nonidiosyncratic) investor decisions, taking into consideration their emotions and cognitive errors. Many psychologists have documented and cataloged the various types of behavioural

biases to which the human mind are prone, and which leads to distortion of judgement in making investment decisions. Here in this paper we analyze the anchoring bias which is considered to be of significant relevance and is sometimes regarded as '*mother of biases*'. This is the most important and impactful heuristic and cognitive biases in making decisions under uncertainty and is related to almost all biases indirectly. Daniel Kahneman and Amos Tversky(1974) argue that when forming estimates people often start with some initial, possibly arbitrary value and then adjust away from it. Put differently, people “anchor” too much on the initial value.

REVIEW OF LITERATURE

Rolf J Daxhammer, Máté Facsaret al.(2023) conducted an in-depth research about the traditional finance theories, neoclassical theories and modern theories with respect to the rationality of investors. His book is titled Behavioral finance: limited rationality in financial markets. For students and practitioners alike, this book aims at opening the door to another perspective on financial markets: a behavioral perspective based on a Homo Oeconomicus Humanus. This agent acts with limited rationality when making decisions. He/she uses heuristics and shortcuts and is prone to the influence of emotions. This sounds familiar in real life and can be transferred to what happens in financial markets, too.

Dr. Chabi Gupta (2019) attempts to establish the existence of fundamental issues, driven by various psychological factors of portfolio investors in investment decision-making. The primary analysis was focused on determining whether behavioural factors affect the investors' decision to buy, sell or hold stocks.

Satish Kumar and Nisha Goyal (2016) stated the objective of investigating the relationship between rational decision-making and behavioural biases among individual investors in India and to examine the influence of demographic variables on rational decision-making process. In their research titled “Evidence on Rationality and Behavioural Biases in Investment Decision-making”, the findings show that the structural path model closely fit the sample data, indicating investors follow a rational decision-making process while investing. However, behavioural biases also arise in different stages of the decision-making process. It further explores that gender and income have a significant difference with respect to rational decision-making process.

Salma Zaiane (2015) investigates the presence of anchoring bias in the financial decision making of individual investors. A survey study was conducted to find out how the studied bias affects the Tunisian Stock Market and concluded that Tunisian investors do not suffer from the anchoring bias.

Dolreen Kaimuri Murithi (2014) studied a detailed study about the anchoring bias on the individual investors of Kenya. According to the study, some investors did not have tangible information on traditional models of finance on the characteristic of securities and could therefore not base their investment decisions on the characteristic of the security but their sole aim was rather based on the ability to make maximum gains.

Abdulahi Dakane Athur (2013) in his research project named “Effect of Behavioural Biases on investment decisions of Individual Investors in Kenya” showed that the dimensions of behavioural factors influence individual investor decisions. He has observed an apparent lack of consensus among financial scholars concerning the validity of behavioural finance theory in his literature.

STATEMENT OF PROBLEM

The research problem in this study is to investigate the impact of anchoring bias with regard to rationality of individual portfolio investors. Almost all the studies analyses almost four or more biases in a single study. But this bias, namely, anchoring bias are more significant in the investment choices and it highly impacts the overall market trends. This research aims to analyze the effect of anchoring bias in choosing investments for the first time and subsequent times.

OBJECTIVES OF STUDY:

- To analyze the impact of anchoring bias on individual portfolio investors.
- To examine the effect of anchoring bias in choosing investment for the first time and subsequent times.
- To suggest certain recommendations to achieve optimal investment decisions.

RESEARCH METHODOLOGY

The research design deployed for the study is descriptive and analytical. The data is collected from both primary and secondary sources. The sample number for study is 102 within the limited time. The secondary sources of data included various books, reports, periodicals, websites, etc. Structured questionnaire was sent to the respondents using convenience sampling. The study was processed and analyzed using SPSS software.

ANALYSIS AND FINDINGS

Demographic statistics:

Gender	Male	71%
	Female	29%
Age	Below 20	8%
	21-30	13%
	31-40	36%
	41-50	31%
	Above 51	14%
Education	Higher sec. education	14%
	Undergraduates	46%
	Postgraduates	35%
	Other courses	5%
Experience in investment	1-3 years	10.8%
	4-7 years	18.0%
	7-10 years	53%
	More than 10years	17.6%

From the above summarized demographic table, it can be said that there are more male investors than the females and mostly investment is done by investors who age between 41 and 50. As we analyze the anchoring bias with regard to their frequencies of investment, ie, with regard to first time and subsequent times, we divide the investors as young investors and experienced.

DESCRIPTIVE STATISTICS

The respondents were asked to scale some of these research statements to find their rationality and anchoring bias

- I consider the past performance of investments before investing in it
- I fix a target price for buying/selling in advance.
- When I hear views from experts/media that conflicts with my opinion, I would change my reference immediately.
- I stop when there are losses and wouldn't hold it long.
- When there is loss and the experts says to anticipate future highs, I would hold the investment expecting the recent increase in its value.

Inorder to analyze whether the investors as young and experienced showed anchoring effect on their investment designs, weighted scoring was conducted.

Investor group	Weighted score	Mean	Refer-ence score	Result
Young	70	20	15.3	Anchoring bias
Experienced	32	15.3	15.3	No anchoring
	102	17.67	15.3	Overall anchoring

CORRELATION ANALYSIS

In order to analyze the relationship between anchoring and investment choices, Karl Pearson's Correlation coefficient was used.

About past info	Pearson correlation	1	0.600*	0.598
		102	102	102

About target price/anchored price	Pearson correlation	0.600*	1	0.701*
		102	102	102
About expert opinions	Pearson correlation	0.589*	0.621**	1
		102	102	102

*sig 0.05

**sig 0.01

Thus there is a positive relationship between the investment decision and anchoring bias of the individual portfolio investors.

Regression Analysis

R	R ²	Adjusted R ²	Standard Error of estimate
0.978b	0.957	0.936	0.0041719

The determination coefficient as measured by the adjusted R-square presents a strong positive relationship between dependent and independent variables given a value of 0.936. This depicts that the factors account for 93.6% of the total variations in investors choices.

INTERPRETATION AND FINDINGS

Out of the sample, two sub-samples of 51 investors each were created: experienced investors – those aged above 30 with at least 7 years of investing experience and Young investors – those aged 30 or below with less than 7 years of experience. According to the analysis of the findings it is evident that majority (71%) of investors are male while only the remaining 29% are female investors. Therefore it can be inferred that most respondents are male investors and women are not active investors in the securities due to lack of information or financial capacity.

The investment decisions are related and impacted by biases. Here anchoring bias is analyzed on the basis of correlation. The sample respondents have strong positive relationship with regard to investment decision and anchoring bias. The *anchor* prices may be past data or pre assumed target price ranges or others' opinions or any other reference point or first hand information. Anchoring is the independent variable (a variable that a researcher manipulates in order to determine its effect or influence on another variable and it predict the amount of variation that occurs in another variable) and the investment choices made by the individual portfolio investors is the dependent variable in the study. Individuals anchor on a readily accessible and adjust to estimate the true value while subjects in the anchored condition first judge whether a specified number (the anchor) is higher or lower. Other control variables in the study were level of education and experience, investor beliefs about the security, type of industry, and the price of a security. A multi linear regression model was used in the data analysis. The model is of the form:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + \dots + b_iX_i + e$$

Where, Y - the dependent variable (investment decision)

X₁ - the Independent variable (anchoring bias)

X₂, X₃ - are control variables

a is the constant and b Slope/intercept and e Margin of error.

The multi linear regression value shows that the independent variable anchoring bias effects more than 90% of the investment decisions.

CONCLUSION AND SUGGESTIONS

Investment decisions are nowadays based on spontaneous or emotional or any other factors. The conventional assumption of 'rationality' is not being followed always. Investors behave normally or irrationally. The study aimed to analyze the rationality with respect to one of the influential bias, namely, anchoring bias. The data is interpreted with regard to the frequency of investment decisions. The pop young or fresh investors were less biased in contrary to the more experienced. This is because the investors who invest for the first time will be attracted generally by *going with the trend or herding behaviour* while those investing for more than 7 years or those who actively monitor their investments may conduct market research and analysis or may take expert opinions to anticipate future gains or losses. Accordingly the experienced investors fix certain reference ranges to buy or sell investments. This is the psychological heuristic that influence the way people intuit probabilities. Regardless of the *anchor values*, they tend to adjust their anchors insufficiently and produce end approximations that are consequently, biased.

Even if anchoring bias is considered to be irrational, the study does not show any heavy losses due to the same to any investor groups. However this particular anchoring bias has indirect impact on other heuristics like herding effect, adjustment bias, loss aversion bias or overconfidence bias.

In short, the presence of anchoring bias must be carefully considered and proper awareness and knowledge must be imparted to the investors. This study can be further studied for making policies and researches to take proper actions regarding the same.

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A STUDY ON EMPLOYEE RETENTION BY USING VARIOUS EMPLOYEE ENGAGEMENT ACTIVITIES IN IT ORGANISATION

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ABSTRACT

The study examines the impact of different employee engagement initiatives on employee retention in IT companies is the goal of this research report. An introduction to the idea of employee engagement and its importance in businesses opens the report. A thorough literature review on staff engagement and retention is included, along with the research questions and objectives. A survey questionnaire was used to gather data from a sample of 54 employees from various IT organizations as part of the quantitative approach-based research methodology. The purpose of the questionnaire is to evaluate employee engagement and retention as well as the success of various engagement initiatives that their companies have put in place. The results of the study suggest that employee engagement activities have a significant impact positive relation between on employee retention in IT organizations. Engagement activities such as training and development programs, recognition and rewards, and communication and feedback mechanisms are the most effective in improving employee retention.

Keywords: *employee engagement, employee retention, recognition, rewards.*

INTRODUCTION

Employee engagement and retention are critical factors for the success of any project or organization. Employee engagement refers to the level of commitment and enthusiasm employees have towards their work and the organization they work for. It involves creating an environment where employees feel motivated, supported, and valued. On the other hand, employee retention refers to the ability of an organization to retain its employees over a period of time. This is essential for the stability and growth of the organization as it helps to reduce turnover costs, maintain confidential details, and build a positive employer brand. Both employee engagement and retention are interdependent, and organizations that focus on improving employee engagement often see an increase in employee retention rates. By fostering a culture of engagement, organizations can build a loyal and committed workforce that is motivated to contribute towards the success of the organization. When employees are engaged and motivated, they are more likely to be productive, innovative, and collaborate effectively with team members. This leads to better project outcomes, increased client satisfaction, and a positive reputation towards the organization. Therefore, it is important for project managers and leaders to prioritize employee engagement and retention strategies as part of their project management plan. This may include regular feedback and recognition, opportunities for learning and development, competitive compensation and benefits, and a supportive work culture that promotes work-life balance and well-being.

REVIEW OF LITERATURE

Munish and Rachna Agarwal (2017) 1 In this article, the main aim is to investigate the crucial factors that can impact the level of employee retention and engagement. The researchers conducted a comprehensive literature review and examined 30 relevant research papers and literature on concepts and practices related to employee retention and engagement. The study revealed that effective training and development, fair compensation structures, autonomy, quality of work life, and favorable work policies and arrangements are key determinants that can lead managers and organizations towards a holistic approach in improving employee retention and

engagement. By integrating key employee engagement and retention strategies with the well-being of employees' psychological state, organizations can achieve significant success. Existing studies have identified various aspects of employee engagement and retention. After analyzing several research papers, a definition of an engaged and retained employee emerged, describing them as motivated, dedicated, ambitious, striving for excellence, setting an example for others, and aligning their goals with those of the organization. Research suggests that factors such as job nature, communication ease, leadership styles, trust level, job autonomy, motivation, work involvement, support from the organization, performance appraisal, quality of work life, involvement in decision making, and growth opportunities are the strongest drivers of employee engagement. Furthermore, studies on employee retention indicate that factors such as training and development facilities, organizational culture, leadership quality, feedback, and compensation structures determine the tenure of talented employees, thereby affecting their dedication. To effectively engage and retain a talented workforce for a longer period, HR professionals should apply a mix-and-match of employee retention and engagement strategies. This study recommends further research to establish the significance of HRM practices and strategically align them for employee engagement and retention, providing a competitive edge for organizations.

1 Munish and Rachna Agarwal (2017), EMPLOYEE ENGAGEMENT & RETENTION, International Journal of BRIC Business Research (IJBBR) Volume 6, Number 1

Dr. Saima Tabasum, and Abdul Rehman Shaikh (2012) 2 Entrepreneurial behavior is evaluated through a formal study that examines the impact of various approaches and perspectives. In today's competitive business environment, entrepreneurs play a crucial role in expanding their enterprises by keeping up with the latest technological developments. Researchers used structured equation modeling (SEM), a statistical method that quantifies and analyzes the connections between observable and latent variables, to determine the relationship between independent, mediating, moderating, and dependent variables in the study. Using a questionnaire, data was collected from a random population sample employing the SEM approach, and Smart PLS software was used to analyze and test the collected information. The results of the study suggest that entrepreneurship is significantly influenced by inspiring motivators, innovativeness, and responsiveness. These factors should urge managers to involve employees in formulating strategic visions to encourage them to launch new creative projects. Furthermore, managers should develop training programs that enhance employee creativity and enthusiasm, enabling them to think creatively and act in a self-renewing manner. The aim of this study was to investigate the proposed connection between employee engagement factors as the predictor variable, turnover intent as the outcome variable, and job satisfaction as the mediator variable (as illustrated in Figure 1). By understanding the impact of employee engagement factors on turnover intent via job satisfaction, organizations can make improvements to the work environment that can enhance overall organizational performance. This article provides an overview of the literature on the relationship between employee engagement, job satisfaction, and turnover intent,

drawing on selected HRD-related journals.

2 Dr. Saima Tabasum, and Abdul Rehman Shaikh (2012), Impact of Employee Engagement on Employee Performance with Mediating Effect of Employee Retention, *International Journal of Social Sciences and Entrepreneurship (IJSSE)* Vol 2, Issue 2 ISSN (Online): 2790-7716 , ISSN (Print): 2790-7724

Felicia Tete Washington (2020), 3 The retention of high talent employees is vital to the success of any organization. Organization leaders who lack effective strategies to retain high talent employees are at risk for business performance failure. A lack of managerial strategies to motivate employees and a lack of understanding of employees' needs lead to increased employee turnover rate in organizations. Grounded in Herzberg's two-factor theory, the purpose of this qualitative multiple case study was to explore strategies information technology (IT) small business leaders use to retain high talent employees. Data were collected from phone semi structured interviews and review of the organizations' employee handbook, policies, and internal records relating to employee retention strategies. Data were analyzed by using coding techniques to identify keywords, phrases, and concepts. The process led to the following 3 themes: compensation and benefits, conducive work environment, and training and development. Member checking and methodological triangulation increased the validity and reliability of the study. A key recommendation includes communicating compensation strategy with employees in alignment with productivity, organizational goals, and performance. The implications for social change include the potential to reduce turnover by improving the employee work experience and retaining talent by building a positive work environment. Implementing retention strategies may result in improving employee-employer relationships and organizational profitability.

3 Felicia Tete Washington (2020), Employee Retention Strategies within Information Technology Small Businesses, Walden University

Zahid Halim, Maria, Muhammad Waqas, Cedric A. Edwin, and Ahsan Shah (2020),⁴ In today's competitive business environment, employee retention is a challenge faced by many industries. This study aims to identify the factors that influence employee retention using employees' feedback and various computational techniques. The researchers conducted a survey across multiple sectors to collect data, which was divided into two parts: demographic information and job satisfaction questions based on theories such as Herzberg's duality theory, expectancy theory, social cognitive theory, and sociocultural theory. The survey questions were also linked with factors such as motivation, recognition and reward, bullying, and work harassment. Frequent items mining technique was utilized to identify the key retention aspects from the employee perspective. The data reliability was tested and found to be 87%. The k Direct Count and Intersect (kDCI) method was found to be four times quicker in identifying the key retention aspects from the data. The researchers used the analysis of variance (ANOVA) and exploratory factor analysis (EFA) tests to find the factors crucial for retaining employees. The results identified work environment, reward and recognition, work performance, supervisory support, and income as having a high impact on employee retention.

4 Zahid Halim, Maria, Muhammad Waqas, Cedric A. Edwin, and Ahsan Shah (2020), Identifying factors for employee retention using computational techniques: an approach to assist the decision-making process C.Balakrishnan, Dr.D.Masthan, and Dr.V.ChandraEmployee (2013), 5 Increasing employee engagement can result in higher commitment and psychological attachment to the company, ultimately leading to lower attrition rates. In order to enhance engagement levels, it is important to identify the drivers of engagement and work on them.

This study aimed to identify these drivers and formulate hypotheses, then examine the relationship between engagement and retention through separate questionnaires completed by 185 randomly sampled employees. The results indicate that non-financial drivers of engagement are crucial in improving employee retention. This study suggests that organizations can improve retention rates without significant financial expenditures by implementing practices that address these non-financial drivers of engagement. This is particularly useful in times of economic constraints when financial resources may be limited. By doing so, companies can retain their highly skilled and specialized human resources without incurring a substantial financial burden.

5 C.Balakrishnan, Dr.D.Masthan, and Dr.V.ChandraEmployee (2013), Retention Through Employee Engagement - A Study At An Indian International Airport

Gibbet Magaisa (2020), 6 The paper focused on establishing factors that can be used to retain employees at the Christian Council of Zimbabwe (CCOZ). Empirical evidence supported the notion that staff turnover is prevalent at the CCOZ, hence the need to carry out a study to remedy the current problem that is affecting the organization. The research methodology applied in this paper was the quantitative research methodology. The sample size of the study was 100 respondents, and a simple random sampling technique was applied in conducting the study. The study recommended that employee engagement needs to be applied in the organization in order to increase organizational performance and retain skilled and talented employees in the organization.

6 Gibbet Magaisa (2020), Effects of Employee Engagement on Employee Retention Strategies at the Christian Council of Zimbabwe

OBJECTIVES OF THE STUDY

The primary and secondary objective of the study are described below,

PRIMARY OBJECTIVE:

A Study on Employee Retention by Implementing Various Employee Engagement Activities in IT organization.

SECONDARY OBJECTIVE:

- To study on various reasons for employee Attrition Rate
- To study the various employee retention strategies
- To study whether the employee engagement activities help to retain employees.

RESEARCH METHODOLOGY

- **Exploratory research design**
- **Survey research design**

The research methodology of the project consists of **collection of primary and secondary data**. The primary data is collected through questionnaires. The secondary data of the study is collected through websites.

RESEARCH DESIGN

The following research design is used for analysis of the data collected from the respondents.

EXPLORATORY RESEARCH DESIGN

The experimental research design is especially useful when you want to test how different factors affect a situation, making this design type very versatile. The experimental research design uses the scientific method, which includes elements like:

Hypothesis: A research hypothesis is a statement that describes what you predict your research to reveal.

Null Hypothesis: A null hypothesis is a statistical conjecture that states that no difference exists between specific characteristics of a population or data-generating activity.

SURVEY RESEARCH DESIGN:

Researchers also use the survey research design frequently. You can use surveys to gather information directly from your sample population. Some types of surveys include:

Research instruments are the instruments which is used for gathering or collecting information. The instruments used in the study are:

1. Direct questions
2. Close end questions
3. Dichotomous questions
4. Multiple choice questions

DIRECT QUESTIONS

Direct questions are just what their names indicate. They explicitly ask for the desired data. However, the directness of the question also relates to the way a response is interpreted.

CLOSE END QUESTIONS

Such questions are also called fixed alternatives questions where they refer to those questions in which the respondent is given a limited number of alternative response frame which is to select on that most closely matches their opinion or attitude.

DICHOTOMOUS QUESTIONS

A dichotomous question refers to one which offers the respondent a choice between only two alternatives and reduces the issue to its simple terms. The fixed alternatives are of the type, yes/no, agree/disagree, true /false etc.

MULTIPLE CHOICE QUESTIONS

A multiple choice question refers to one which provides several alternatives for its answers. Thus it is a middle ground between free answers and dichotomous question.

CHARTS

Charts are graphic display of data for easy understanding of relative positions that is not always possible with descriptive words or numbers.

The charts commonly used in business data presentation are

- Bar Charts
- Pie Charts

DATA COLLECTION METHOD:

Data collection methodology covers the supply chain management of the research. Determine how data should be collected. If there will be multiple data collection source, the methodology should describe each source and the methods of making the end result. The data collection may be classified as follows:

Primary data: This data is collected directly from the company with the help of a survey in the form of a questionnaire given and circulate among the employees on objectives to know the current status to be studied. Those data are collected by the researcher his/her are original data are to be taken as primary data. It gives us respondents opinions and attitudes.

Secondary data: It refers to the information already collected from sources from research gate, google scholar, shodhganga website where articles were found related to topic and objectives reported by scholars published in other sources related to this study as taken as reference for the data analysis to explain the relationship between variables. This data has been explained in the next chapter in the form of a literature review.

STATISTICAL TOOLS:

CHI-SQUARE ANALYSIS CHI-SQUARE DEFINITION:

In this project chi-square test was used. This is an analysis of technique which analyzed the stated data in the project. Its analysis the assumed data and calculated in the study. The Chi- square test is an important test amongst the several tests of significant developed by statistical. Chi-square, symbolically written as χ^2 (Pronounce as Ki-Spare), is a statistical measure used in the context of sampling analysis for comparing a variance to a theoretical variance.

FORMULA:

$$X^2 = \frac{(O - E)^2}{E^2}$$

E²

O – Observed frequency E – Expected frequency

ANALYSIS THE RELATIONSHIP BETWEEN ORGANIZATION MOTIVATION TOWARDS EMPLOYEE TO WORK EFFECTIVELY AND ORGANISATION CULTURE

NULL HYPOTHESIS

H0: There is no significant relationship between organization motivation towards employee to work effectively and organization culture

ALTERNATE HYPOTHESIS

H1: There is a significant relationship between organization motivation towards employee to work effectively and organization culture

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	24.978 ^a	12	.015
Likelihood Ratio	27.037	12	.008
Linear-by-Linear Association	.003	1	.954
N of valid cases	54		

RESULT:

Since the calculated values are lesser than the tabulated value 0.05 hence Null hypothesis [H0] is rejected and alternate hypothesis [H1] is accepted. It is inferred that there is a significant relationship between organization motivation towards employee to work effectively and organization culture

ANALYSIS THE RELATIONSHIP BETWEEN EMPLOYEE APPRECIATION AND REWARDS AND RECOGNITION

NULL HYPOTHESIS

H0: There is no significant relationship between employee appreciation and rewards and recognition.

ALTERNATE HYPOTHESIS

H1: There is a significant relationship between employee appreciation and rewards and recognition.

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.834 ^a	12	.039
Likelihood Ratio	16.908	12	.153
Linear-by-Linear Association	.196	1	.658
N of Valid Cases	54		

RESULT:

Since the calculated values are lesser than the tabulated value 0.05 hence Null hypothesis [H0] is rejected and alternate hypothesis [H1] is accepted. It is inferred that there is a significant relationship between employee appreciation and rewards and recognition.

ANALYSIS THE RELATIONSHIP BETWEEN AN EMPLOYEE'S CURRENT COMPENSATION PACKAGE AND THEIR SATISFACTION WITH THEIR PAY

NULL HYPOTHESIS

H0: There is no significant relationship between an employee's current compensation package and their satisfaction with their pay

ALTERNATE HYPOTHESIS

H1: There is a significant relationship between an employee's current compensation package and their satisfaction with their pay

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	28.374 ^a	16	.029
Likelihood Ratio	21.250	16	.169
N of Valid Cases	54		

RESULT:

Since the calculated values are lesser than the tabulated value 0.05 hence Null hypothesis [H0] is rejected and alternate hypothesis [H1] is accepted. It is inferred that there is a significant relationship between employee's current compensation package and their satisfaction with their pay.

ANALYSIS THE RELATIONSHIP BETWEEN RELATIONSHIP WITH YOUR MANAGER AND CAREER PROGRESSION OPPORTUNITIES

NULL HYPOTHESIS

H0: There is no significant relationship between relationship with your manager and career pro-

gression opportunities

ALTERNATE HYPOTHESIS

H1: There is a significant relationship between relationship with your manager and career progression opportunities

RESULT:

Since the calculated values are lesser than the tabulated value 0.05 hence Null hypothesis [H0] is rejected and alternate hypothesis [H1] is accepted. It is inferred that there is a significant relationship between relationship with your manager and career progression opportunities.

ANALYSIS THE RELATIONSHIP BETWEEN ORGANIZATION'S CULTURE AND EMPLOYEE REFERRAL

NULL HYPOTHESIS

H0: There is no significant relationship between organization's culture and employee referral

ALTERNATE HYPOTHESIS

H1: There is a significant relationship between organization's culture and employee referral

CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	49.269 ^a	16	.012
Likelihood Ratio	51.896	16	.015
Linear-by-Linear Association	17.429	1	.000
N of Valid Cases	54		

RESULT:

Since the calculated values are lesser than the tabulated value 0.05 hence Null hypothesis [H0] is rejected and alternate hypothesis [H1] is accepted. It is inferred that there is a significant relationship between organization's culture and employee referral.

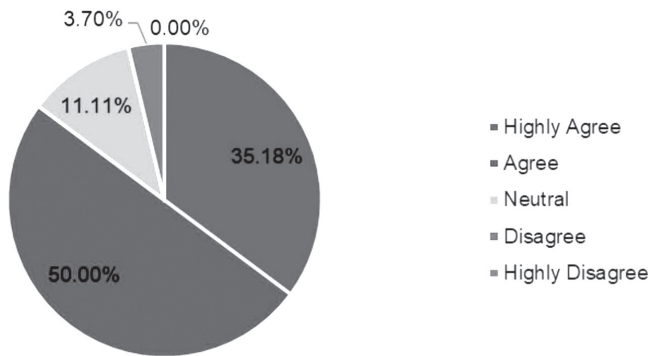
ALLOWANCE, MEMBERSHIPS AND ON-SITE OPPORTUNITY WILL HELP EMPLOYEES TO STAY LONGER IN THE ORGANIZATION

Table 1

Allowance, Memberships and On-site opportunity will help employees to stay longer in the organization	Respondents	Percentage
Highly Agree	19	35.18%
Agree	27	50.00%
Neutral	6	11.11%
Disagree	2	3.70%
Highly Disagree	0	0.00%
Grand Total	54	100%

Chart 1

Allowance, Memberships and On-site opportunity will help employees to stay longer in the organization



INTERPRETATION: From Table 1, clearly portraits out of 54 respondents, 35.18% of the respondents are Highly Agree, 50.00% of the respondents are Agree, 11.11% of the respondents are Neutral, 3.70% of the respondents are Disagree, 0% of the respondents are Highly Disagree.

CONCLUSION

After completing this research, it is concluded that:

The study aims employee retention is a critical aspect of any organization, especially in the highly competitive IT industry. By providing a positive work environment, offering opportunities for growth and development, and fostering a sense of community and inclusion, employees are more likely to stay with an organization for the long-term. Furthermore, the implementation of employee engagement activities can also improve productivity, job satisfaction, and overall organizational performance. Therefore, it is recommended that IT organizations invest in various employee engagement activities to retain their valuable talent and enhance their competitiveness in the market.

ROLE OF BUSINESS PROCESS INNOVATIONS IN ENTREPRENEURSHIP.

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ABSTRACT

This paper aims to focus on how Business Process Innovations affect Entrepreneurship. Research interest in the topic of Business Model Innovation (BMI) is growing. The current study attempts to contribute to the growing body of knowledge about new trends in business model design in the entrepreneurship domain. This subject is getting more and more attention in the top management literature. Further, researchers studying management are looking into the manner in which Business Process Innovations influence entrepreneurship and what part it plays in fostering management, competitiveness, and knowledge transfer. Business process innovation, as a strategic device, has emerged as a cornerstone for entrepreneurial success. The paper also explores how innovative processes empower startups to adapt and scale effectively in response to shifting market dynamics, with a particular focus on technology-driven advancements.

This review paper presents an in-depth analysis of the critical role that business process innovation plays in the realm of entrepreneurship. Entrepreneurship is characterized by its dynamic and competitive nature, with startups continually seeking to establish their presence in the market. Business process innovation, as a strategic device, has emerged as a cornerstone for entrepreneurial success. The findings presented here underscore the pivotal role of innovative processes in empowering startups to navigate the complexities of the entrepreneurial landscape, ultimately contributing to their resilience and sustained success.

Keywords: Business Process Innovations, Entrepreneurship, Startups, Technology, Market.

INTRODUCTION

In the dynamic landscape of entrepreneurship, staying ahead of the curve is not just an ambition but a necessity. Innovations in business processes have become essential to the success of entrepreneurs as they offer a path toward productivity, flexibility, and long-term expansion. This in-depth analysis explores how business process breakthroughs reshape the entrepreneurial landscape and catalyse success, delving into the revolutionary effects of these innovations on entrepreneurship.

As entrepreneurs navigate the complexities of a competitive market, the strategic redesign and optimization of internal processes emerge as a strategic imperative. Business process innovations serve as a compass, guiding businesses toward operational excellence, customer-centricity, and the ability to seize opportunities in an ever-shifting landscape.

DEFINING BUSINESS PROCESS INNOVATIONS:

Business process innovations refer to the introduction of new methods, strategies, or technologies in the way an organization carries out its operations or tasks. These innovations aim to improve efficiency, productivity, and overall performance by streamlining processes, reducing costs, and enhancing the quality of products or services.

Business process innovations can involve both incremental changes and radical transformations. Incremental changes may include small adjustments to existing processes, while radical transformations entail a complete overhaul of how tasks are performed. These innovations can be driven by advancements in technology, changes in customer demands, market competition, or internal process optimization initiatives.

Examples of business process innovations include:

Automation: Incorporating automation technologies, such as robotic process automation (RPA) or artificial intelligence (AI), to replace manual tasks and improve efficiency.

Workflow redesign: Redesigning workflows to remove unnecessary steps, eliminate bottlenecks, and improve the flow of work within and between departments.

Digitization: Digitizing paper-based processes, such as document management or invoicing, to reduce errors, speed up processing time, and enhance data accessibility.

Outsourcing: Outsourcing non-core processes or functions to specialized third-party providers to achieve cost savings and increased focus on core competencies.

Lean Six Sigma: Applying Lean Six Sigma methodologies to identify and eliminate process inefficiencies, reduce defects, and improve overall quality and customer satisfaction.

Business process reengineering: Revisioning and redesigning business processes from scratch to achieve radical improvements in performance, often involving changes to organizational structure, technology adoption, and employee roles.

Continuous improvement: Implementing a culture of continuous improvement, such as Kaizen or Lean Manufacturing, where employees are encouraged to identify and suggest improvements to existing processes on an ongoing basis.

Successful business process innovations can result in increased productivity, cost savings, enhanced customer satisfaction, and a competitive advantage in the marketplace. However, implementing these innovations may require careful planning, stakeholder involvement, and organizational change management to ensure smooth adoption and integration into the existing business environment.

LITERATURE REVIEWS OF THE ROLE OF BUSINESS PROCESS INNOVATIONS IN ENTREPRENEURSHIP

A literature review by Battistella et al. (2017) focuses on the impact of business process innovations on entrepreneurship. This review highlights the importance of process innovation for startups and discusses how it can enable them to efficiently deliver their innovative products or services to the market. The review also examines the different types of process innovations that entrepreneurs can adopt and discusses their potential benefits and challenges.

In a literature review by Santarelli and Vivarelli (2002), the role of business process innovations in entrepreneurship is explored in the context of firm dynamics and economic growth. The review discusses how process innovations can contribute to the survival and growth of new firms by improving their efficiency and competitiveness. Additionally, it highlights how process innovations

can have spillover effects and foster entrepreneurial activities in the broader economy.

A literature review by Seifert et al. (2011) examines the relationship between business process innovations and the performance of small and medium-sized enterprises (SMEs) in the context of entrepreneurship. The review discusses the potential benefits of process innovations for SMEs, including cost reductions, improved quality, and increased customer satisfaction. It also highlights the importance of organizational factors, such as a supportive entrepreneurial culture and effective knowledge management, in enabling SMEs to implement and reap the benefits of process innovations successfully.

In a literature review by Vasiliadis and Oude Lansink (2010), the role of business process innovations in sustainability-oriented entrepreneurship is explored. The review discusses how process innovations can help entrepreneurs develop more sustainable business models, reduce environmental impacts, and meet the demands of environmentally conscious consumers. It also discusses the challenges and barriers that entrepreneurs may face in implementing sustainable process innovations and suggests strategies to overcome them.

A review by Dechant and Jensen (2016) focuses on the role of business process innovations in social entrepreneurship. The review discusses how process innovations can enable social entrepreneurs to deliver social and environmental value in an efficient and sustainable manner. It also highlights the importance of collaboration, knowledge sharing, and learning in fostering process innovations in the context of social entrepreneurship.

Overall, these literature reviews highlight the significant role of business process innovations in entrepreneurship. They discuss how process innovations can drive the survival, growth, and sustainability of entrepreneurial ventures and provide insights into the different types of process innovations, their benefits, and challenges. The reviews also emphasize the importance of organizational factors, collaboration, and knowledge sharing in enabling entrepreneurs to implement and leverage process innovations successfully.

LITERATURE REVIEWS OF THE ROLE OF BUSINESS PROCESS INNOVATIONS IN STARTUPS

The role of business process innovations in startups has been a topic of interest in academic literature. Numerous studies have explored the impact of these innovations on the success and growth of startups. Here are some literature reviews that summarize the findings from these studies:

Popp et al. (2015) conducted a comprehensive review of the literature on business process innovations in startups. They found that startups that implemented innovative business processes were more likely to achieve superior performance and sustainable competitive advantage. Additionally, these startups were better equipped to adapt to evolving market conditions and exploit new business opportunities.

Delgado-García et al. (2017) reviewed several studies that examined the specific mechanisms through which business process innovations influence startup success. They found that these innovations enhance operational efficiency, reduce costs, and improve overall performance. Moreover, startups that prioritize continuous process improvement and foster a culture of innovation tend to achieve higher levels of process innovation.

Chalmers et al. (2015) conducted a systematic literature review to identify the factors that influence the adoption and implementation of business process innovations in startups. They found that factors such as founder characteristics, organizational culture, and resource availability play a significant role in shaping the adoption and success of these innovations. Startups with visionary and proactive founders, an open and supportive culture, and access to adequate resources are more likely to embrace and benefit from business process innovations.

Roper et al. (2016) conducted a review of the literature on the impact of business process innovations on the long-term survival and growth of startups. They found that startups that implemented process innovations early on had higher survival rates and were more likely to achieve sustained growth. Additionally, they observed that startups that actively sought and embraced customer feedback during the process innovation phase were more successful in developing products and services that meet customer needs.

Foss and Saebi (2017) reviewed the literature on the relationship between business model innovation, which may include business process innovations and startup performance. They found that startups with more innovative business models, including process innovations, tend to outperform their competitors. Business model innovation allows startups to create value for customers in novel ways and establish a unique competitive advantage.

These literature reviews collectively emphasize the crucial role of business process innovations in startups. These innovations have been consistently shown to enhance performance, improve efficiency, foster an innovation culture, and contribute to long-term survival and growth.

DISCUSSION

The discussion of this matter revolves around the significant role of business process innovations in entrepreneurship and startups. The literature reviews cited in the study provide valuable insights into how these innovations contribute to the success, growth, and sustainability of entrepreneurial ventures.

One key finding is the importance of process innovations in enabling startups to efficiently deliver their innovative products or services to the market. Business process innovations streamline operations, reduce costs, and enhance the quality of products or services, ultimately improving efficiency and competitiveness. This aligns with the dynamic and competitive nature of entrepreneurship, where startups continually seek to establish their presence in the market.

Moreover, these process innovations contribute to the survival and growth of new firms by improving their efficiency and competitiveness. By implementing process innovations, startups can achieve cost reductions, improved quality, and increased customer satisfaction. This not only benefits individual firms but also has spillover effects and fosters entrepreneurial activities in the broader economy.

There is also a clear link between process innovations and sustainability-oriented entrepreneurship. Process innovations help entrepreneurs develop more sustainable business models, reduce environmental impacts, and meet the demands of environmentally conscious consumers. This demonstrates the potential for process innovations to contribute to both economic and environmental sustainability.

In terms of startups specifically, numerous studies have shown that implementing innovative business processes leads to superior performance, sustainable competitive advantage, and adaptability to evolving market conditions. Startups that prioritize continuous process improvement and foster a culture of innovation tend to achieve higher levels of process innovation, which directly correlates with their success and growth.

The adoption and implementation of business process innovations in startups are influenced by various factors, including founder characteristics, organizational culture, and resource availability. Visionary and proactive founders, an open and supportive culture, and access to adequate resources are crucial in shaping the adoption and success of these innovations. Therefore, it is essential for startups to create an environment that supports and encourages innovation.

Finally, business model innovation, which may include business process innovations, has been found to be strongly associated with startup performance. Startups with more innovative business models tend to outperform their competitors, as they can create value for customers in novel ways and establish a unique competitive advantage.

In conclusion, the discussion highlights the vital role of business process innovations in entrepreneurship and startups. These innovations are crucial for startups to navigate the complexities of the entrepreneurial landscape, achieve operational excellence, and seize opportunities in a dynamic market. By improving efficiency, reducing costs, and enhancing overall performance, process innovations contribute to the success, growth, and sustainability of entrepreneurial ventures. Startups that embrace and prioritize continuous process improvement and foster a culture of innovation are more likely to achieve long-term success and outperform their competitors.

CONCLUSIONS

In conclusion, this study provides valuable insights into the role of business process innovations in entrepreneurship and startups. The findings highlight the significant impact of innovative processes on the success, growth, and sustainability of entrepreneurial ventures. Process innovations improve efficiency, reduce costs, enhance quality, and foster adaptability, ultimately contributing to superior performance and sustainable competitive advantage.

The literature reviews demonstrate that startups can benefit from various types of process innovations, including automation, workflow redesign, digitization, outsourcing, Lean Six Sigma, business process reengineering, and continuous improvement. These innovations can be driven by technological advancements, changes in customer demands, market competition, or internal process optimization initiatives.

Implementing process innovations may require careful planning, stakeholder involvement, and organizational change management. Startups need to create an environment that supports and encourages innovation, with visionary and proactive founders, an open and supportive culture, and access to adequate resources.

Furthermore, these process innovations are not limited to improving internal operations but also contribute to sustainability-oriented entrepreneurship. By developing more sustainable business models, reducing environmental impacts, and meeting the demands of environmentally conscious consumers, startups can address economic and environmental sustainability simultaneously.

Overall, this study underscores the pivotal role of business process innovations in empowering

startups to adapt, compete, and thrive in the dynamic landscape of entrepreneurship. It highlights the need for startups to embrace continuous process improvement, foster a culture of innovation, and leverage technological advancements to stay ahead of the curve. By doing so, startups can establish a unique competitive advantage, achieve long-term success, and contribute to the broader economy and sustainable development.

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