ISSN : 3048-5320 (Online)

CSIBER International Journal - CIJ

Vol- 2, Issue No- 4, October 2024

MULTIDISCIPLIANRY
JOURNAL

MAKE IN INDIA

Published by : CSIBER Press, Central Library Building, CSIBER Campus, University Road,Kolhapur-416004, Maharashtra, India.

Find the Journal Online at
https://www.siberindia.edu.in/journals
E-mail : cij@siberindia.edu.in

ISSN: 3048-5320 (Online)

 ISSN: 3048-5320 (Online)

CSIBER International Journal – CIJ

Contents

Adapting to Change: Global Pandemic Transformed Consumer Behaviour and Retail Buying Habits in Mauritius

Dr. Havisha Vaghjee
Sr. Lecturer, School of Business Management and Finance,
University of Technology, Mauritius

Abstract
The global pandemic has reshaped the retail landscape, leading to unparalleled transformations in consumer behaviour. As consumers navigate the 'new normal,' their habits are subject to continuous evolution. From the phenomena of panic buying and stockpiling to notable shifts in expenditure patterns and the modalities of delivery, the ramifications of containment measures have been significant. This study investigates the transformations in consumer behaviour within the context of Mauritius' retail sector post-pandemic, thereby offering valuable insights for marketers who aim to realign their strategies with the shifting expectations of their customers. It presents valuable perspectives for those seeking to refine their approaches and policies to enhance alignment with customer satisfaction. To examine these changes, an online survey was conducted with a sample comprising 150 respondents drawn from various age demographics. The survey sought to evaluate the extent to which consumer behaviour was shaped by lockdowns, social distancing measures and restrictions within confined environments. Furthermore, a focus group consisting of 10 respondents was organized to probe deeper into their behavioural transformations. The findings reveal fundamental shifts in consumer behaviours during and after the pandemic, particularly in light of the gradual relaxation of containment protocols. Notably, a considerable segment of consumers within the Mauritian market has reverted to in-person shopping, as opposed to favouring online transactions and deliveries. This preference—rooted in various underlying motivations—is examined comprehensively. Furthermore, the study scrutinizes the intensified emphasis on health and safety among consumers during the pandemic, while concurrently analysing the emotional responses associated with shopping experiences. The research ultimately concludes that numerous consumers experienced a profound sense of fear and helplessness while grappling with the complexities of shopping amid the COVID-19 crisis.

Keywords: *Covid-19, Consumer Behaviour, Retail, Mauritius, Market Trends*

Introduction

The COVID-19 pandemic has caused widespread disruptions, drastically altering routines and behaviours globally (Jiang & Stylos, 2021). Individuals had to adapt to new ways of living, as activities such as outdoor recreation and casual shopping were curtailed due to lockdowns and social distancing measures. Remote working, once uncommon, became the norm for many. The retail sector, experienced significant changes as consumers perceived traditional in-store shopping as a health risk to their families. As a result, retail habits shifted, driven largely by stringent government containment measures, including lockdowns and restrictions on public gatherings. Understanding these shifts is critical for marketers and policymakers seeking to adapt strategies to the evolving needs of the post-pandemic market (Rose, Rowe & Dolega, 2023; Niewczas-Dobrowolska et al., 2024; Bandyopadhyaya & Bandyopadhyaya, 2024).

This paper has examined the existing literature concerning consumer buying behaviour, particularly within the framework of generational cohorts—namely Baby Boomers, Generation X and Millennials—and their disparate responses to the pandemic-induced transformations. The study seeks to explore the evolution of consumer purchasing habits since the pandemic's onset, with an emphasis on the retail sector in Mauritius. At the peak of the crisis, strict containment measures imposed by the Mauritian government, which included rigorous social distancing protocols in confined spaces and restrictions on public gatherings, precipitated the downfall of numerous businesses. However, while some enterprises were compelled to suspend operations, others exhibited remarkable resilience; they adapted to the new economic landscape and managed to endure the ensuing turmoil. This context accentuates the necessity of comprehending how consumer behaviour in the retail sector has evolved in response to the pandemic—a pivotal consideration for shaping future marketing strategies (Juan, Santiago, & Edyta, 2022). Despite challenges, this study highlights the dynamic nature of consumer preferences and the imperative for businesses to remain agile in the face of adversity.

The study addresses several key questions:

- What factors influenced consumer buying habits during the COVID-19 pandemic?
- How have these factors evolved post-pandemic?
- Are the behavioural changes temporary or still present?

- To what extent do consumers prioritise their health when making purchasing decisions?
- Did consumer brand loyalty endure throughout the pandemic?

For many businesses in the retail sector, survival emerged as the primary objective when the pandemic maintained its considerable influence. The economic landscape was grim, characterized by a precipitous decline in sales and the suspension of operations due to the rigorous containment measures implemented in Mauritius. However, certain businesses showcased extraordinary adaptability, evolving in tandem with the fluctuating market dynamics. One such example is the transition from traditional print newspapers to digital alternatives, which can be accessed with a mere few clicks on a smartphone or other electronic device (Chauhan and Shah, 2020). This shift underscores how consumer habits have seamlessly migrated from the public domain to a more private context. This research aims to provide valuable insights for marketers and decision-makers, enlightening the various factors that have influenced consumer behaviour and how these factors have transformed in response to the pandemic. Although the findings indicate that the pandemic has left no household unscathed, it has particularly affected consumer behaviour across all economic strata, irrespective of wealth or purchasing power.

The Impact of the COVID-19 Pandemic on the Retail Sector

The emergence of the pandemic in December 2019 (Wuhan, China) instigated a global health crisis characterized by profound economic ramifications (Blackburn et al., 2020). Subsequently, on 11 March 2020, the World Health Organization classified COVID-19 as a pandemic—this designation heralded an unparalleled economic recession, frequently likened to the Great Depression of the 1930s (Euronews, 2020). This "Black Swan Event" (Grech, 2020) irrevocably transformed the operational dynamics of numerous industries, retail being particularly affected, because governments across the globe instituted containment strategies to mitigate the virus's proliferation. In Mauritius, stringent governmental regulations, which included lockdowns and social distancing measures, exerted a considerable influence on retail enterprises (Beaunoyer et al., 2020). Although many establishments were compelled to shutter their operations, others exhibited remarkable adaptability by pivoting to digital avenues and online delivery frameworks. These transitions have emphasized the critical need to comprehend consumer behaviour within the retail domain, as it has undergone significant evolution throughout the pandemic (Sait et al., 2023).

According to McKinsey (2021), basket sizes in China were 54% smaller during the pandemic; consumers showed reluctance to enter crowded areas. The pandemic has significantly influenced consumers' behaviours and habits (Jiang and Stylos, 2021); however, this has far-reaching consequences for the economy. Although many factors contribute to this shift, the overarching impact is undeniable. Because of these changes, market dynamics are altered and businesses must adapt to survive in a transformed landscape.

Consumers' Buying Habits and Behaviour

Consumer buying behaviour, an element integral to marketing, has undergone significant transformation due to the pandemic. It has revealed unprecedented trends. Panic buying and stockpiling, triggered by early reports of COVID-19's severity, emerged as notable phenomena (Hassen et al., 2021; Islam et al., 2021; Sheth, 2020; Niewczas-Dobrowolska et al., 2024). As consumers found themselves confined to their homes, their shopping habits became increasingly oriented towards essential products, resulting in a sharp decline in non-essential purchases. Panic buying, which surfaced promptly once the pandemic's severity became evident, was driven by a desire to secure supplies in the face of uncertainty (Islam et al., 2021).

Consumer behaviour thus stands as a core aspect of marketing strategy; the COVID-19 pandemic has introduced unprecedented behaviours, such as stockpiling essential goods and panic buying (Sheth, 2020; Hassen et al., 2021). However, this shift raises questions about the long-term implications for consumer habits and market dynamics, because understanding these changes is crucial for effective marketing strategies in a post-pandemic world.

Factors Influencing Consumer Behaviour

Consumer purchasing decisions are shaped by a multitude of psychological, cultural, social and personal factors (Ramya & Ali, 2016). Psychological dimensions encompass consumer perceptions, motivations and attitudes; these elements are crucial drivers of purchasing decisions (Jisana, 2014). For instance, during the pandemic, heightened fear and uncertainty amplified the demand for essential goods, which in turn motivated consumers to prioritise health and safety in their purchases. Cultural influences, including social norms and traditions, also exert a significant impact on consumer preferences (Kacen & Lee, 2002). In Mauritius, the strong cultural inclination towards in-person shopping persisted, even as e-commerce gained global traction.

Social factors denote the influence exerted by family, peers and societal roles on consumer behaviour. However, the pandemic disrupted these social dynamics, leading to increased isolation among consumers who increasingly relied on online platforms for both information and shopping. Furthermore, personal factors—such as age, income and occupation—also played a pivotal role in shaping purchasing patterns, because different demographics exhibited varied responses to the crisis (Parment, 2013). This interplay of factors underscores the complex nature of consumer behaviour in times of uncertainty.

Models of Consumers' Buying Habits and Behaviour

Research shows that there are traditional and contemporary models to explain consumers buying behaviour. These models help us to understand the factors that influence an individual in the buying decision process (Madhavan and Chandrasekar, 2015).

The traditional models are:

- Economic Model;
- Learning Model;
- Psychoanalytic Model; and
- Sociological Model.

On the other hand, there are other models of consumer buying behaviour which have emerged through the years, namely:

- Howard-Sheth Model;
- Engel-Kollat-Blackwell Model;
- Nicosia Model; and
- Stimulus-Response Model.

We look at the traditional models in the first place before analysing the contemporary models thereafter.

Economic Model

This model supports the idea that a consumer's buying pattern is influenced by the utility or benefit he will derive through the consumption of a particular product while he is minimising his cost or expenditure on that product (Jisana, 2014). There are several economic indicators which help to predict behaviour such as consumers' purchasing power and prices in the market. An example which we usually experience in our daily life is when we buy a similar product at a lower price to maximise utility.

Learning Model

According to this model, consumers' behaviour is governed by the need to satisfy basic and learned needs. Basic needs are food, clothes and shelter. Learned needs include guilt and fear. For instance, someone who is hungry would buy food instead of a mobile cover. He may later decide to buy the mobile cover, after he has satisfied the food needs.

Psychoanalytic Model

This model supports the idea that consumers' behaviour is influenced by the consumers' conscious and subconscious minds. The three levels of consciousness discussed by Sigmund Freud (id, ego and superego) all work to influence one's buying decisions and behaviours. For example, a hidden symbol in a company's name or logo may affect a person's subconscious mind and eventually influence their decision to buy that product instead of a competitor's product.

Sociological Model

The sociological model primarily considers the idea that a consumer's buying pattern is based on their role and influence in society. A consumer's behaviour may also be influenced by the people they associate with and the culture that the society exhibits.

Howard-Sheth Model (1969)

This model supports the logic that there are stimuli in the form of inputs, and there are also outputs which interact with these inputs to form a purchase decision. In between these inputs and outputs, there are certain variables which are hypothetical (Madhavan and Chandrasekar, 2015). The decision-making process consists of three levels, namely; Extensive Problem Solving (EPS), Limited Problem Solving (LPS), and Habitual Response Behaviour (HRB).

 ISSN: 3048-5320 (Online)

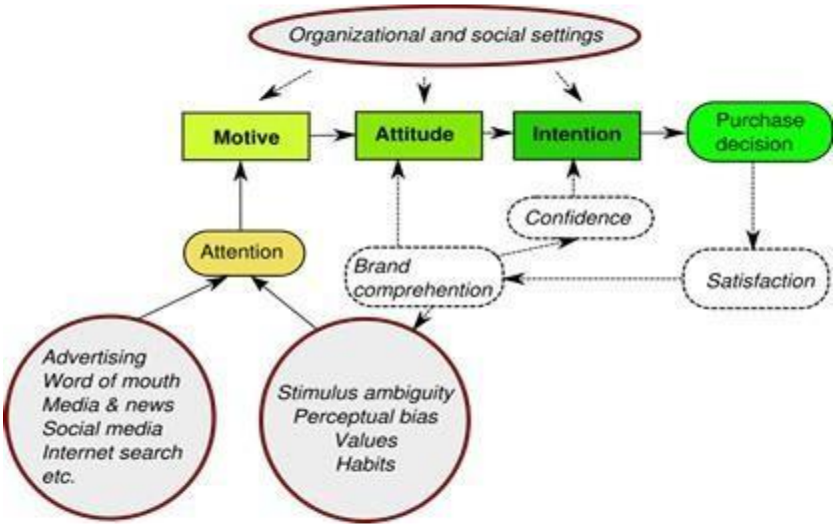
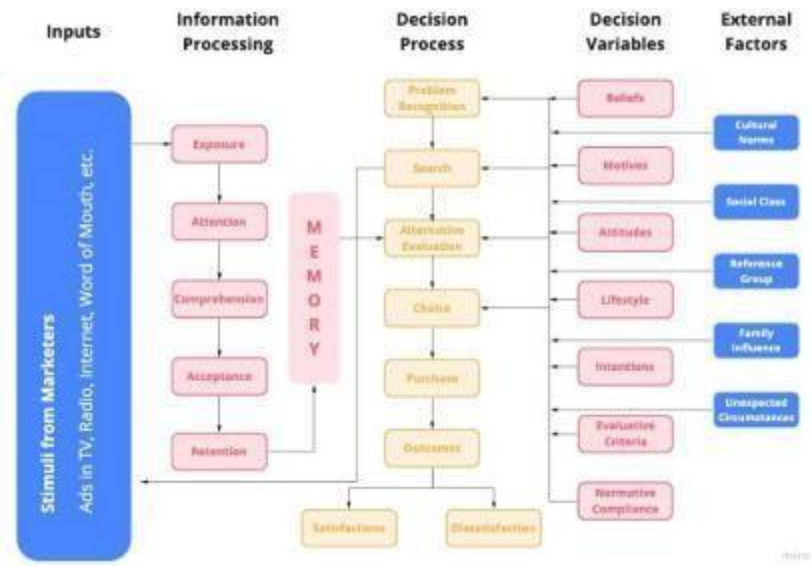


Figure 1: Howard-Sheth Model (1969)

Under the EPS stage, the consumer has no idea about the product and would gather information about all alternative brands available in the market. The LPS takes place when the consumer has been able to gather partial knowledge and beliefs about the brands, but he is still not in a position to differentiate between them. Last, HRB occurs when the knowledge and belief of the consumer on the brand and its alternative are fully established and he has a definite choice about the brands.

Engel-Kollat-Blackwell Model (1978)
This model is considered a holistic model which reflects a consumer's actual behaviour in purchasing a product. Under this model, consumers' buying decision process is made up of 5 stages, namely:

a) identification of problem
b) search of information
c) assessment of options
d) choice or purchase
e) effects of choice or outcome



 ISSN: 3048-5320 (Online)

Figure 2: Engel-Kollat Blackwell Model (1978)

The first stage is where the consumer notices a gap between the actual state of affairs and the ideal state of things to generate a need (identification of problem). Once a need is identified, the consumer starts a search for information. This may entail various sources as well as stimuli which may catch his or her attention. Furthermore, the third stage is where the consumer considers the alternative brands in the market.

The consumer then decides to buy a particular product which decision may be impacted by several factors. Finally, the purchase may lead to satisfaction or dissonance.

Nicosia Model (1966)

This model explains consumers' behaviour by focusing on the link and relationship between firms and prospective consumers. Nicosia suggested that firms would endeavour to positively influence consumers' predisposition towards their goods or services. Based on this attempt by the firms, the consumers are expected to act in certain ways towards the goods or services, for instance, consumers may search for a product or its attributes. Therefore, if the firm is successful in these steps, it may transform into buying decisions.

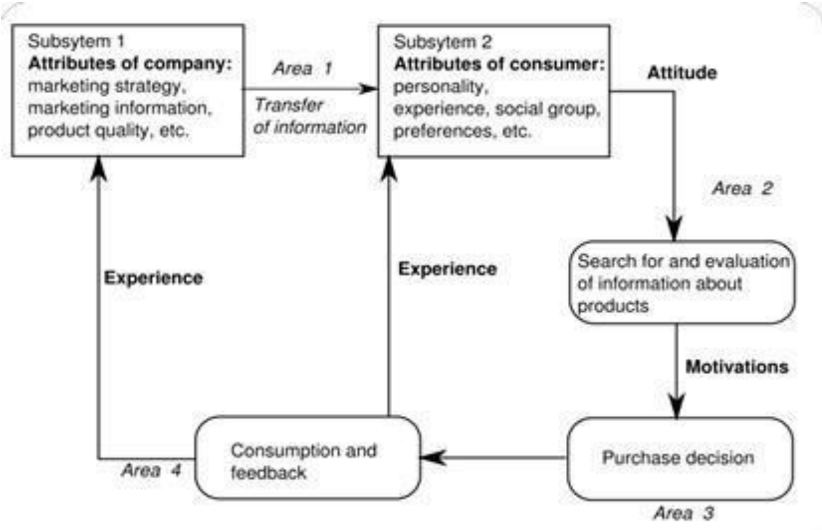


Figure 3: Nicosia Model (1966)

Stimulus-Response Model

In this model, the decision makers find out what is going on in the customer's "black box" and it is the goal of marketing management. The first step to understanding consumers' buying behaviour is to focus on the elements that affect the "black box" (Sandhusen, 2000). The "black box" is hereby referred to as the cognitivism of the human mind, which is how we receive, organize and store information in our mind. There are various marketing stimuli such as the 4Ps; Price, Product, Place and Promotion, as well as other forces such as political, economic, social, technological, environmental and legal. The buyer's attributes affect how he or she interprets the stimuli and the decision-making process decides what purchasing behavior is engaged in. All these factors enter the buyer's mind and the black box where they are then turned into buyer responses such as product choice, brand choice, dealer choice, purchase amount and other decisions.

 ISSN: 3048-5320 (Online)

Figure 4: Stimulus-Response Model

Generational Response to the Pandemic

According to McKinney et al.(2004), market segmentation represents another way to study and understand consumers' buying behaviour. For Parment (2013), segmentation based on generational cohorts provides the homogeneity which exists within a particular generation as well as the heterogeneity which is present between the different generations. Furthermore, consumers forming part of a generational cohort tend to have similar factors which affect their buying decisions such as core values, attitudes, beliefs, and preferences among others which ultimately shape their buying behaviour (Marjanen et al., 2019). As such, a generational identity has an important bearing on the purchase patterns and shopping behaviour of consumers (Lissitsa and Kol, 2016). More particularly, this study makes a comparison between the three significant cohorts: Baby Boomers, Generation X and Generation Y. The generations are briefly detailed below.

- **Baby Boomers (born 1945-1964)**

This generation is also known as the digital immigrants since they were not born into a digital world. They prefer traditional in store shopping and were slower to adopt to digital shopping platforms. This generation usually prioritize products that offer reliability and value for money (Williams and Page, 2011).

- **Generation X (born 1965-1982)**

This generation when compared with baby boomers are more comfortable with digital communication and online shopping, yet they remain sceptical of mass marketing efforts (Brosdahl and Carpenter, 2011). They value convenience and personalised marketing strategies tailored to their specific needs.

- **Generation Y (born 1983-2000)**

Generation Y, are also known as Millenials or digital natives, are highly adept at using online platforms for shopping and more likely to base purchasing decisions on digital research and reviews (Lissitsa and Kol, 2016). Thus, this survey examines the changes in shopping habits, behaviour and needs within the framework of generational cohort theory. Understanding consumer buying behavior during and after this pandemic will help retailers and marketers as well as businesses and public policy makers to retain existing consumers and attract new ones.

Methodology

A structured online survey was conducted among 150 respondents, drawn from diverse age groups in Mauritius. The survey, developed based on existing literature (Eger, Ludvik et al., 2021), aimed to assess how consumer behaviour shifted in response to pandemic-related restrictions, with a focus on in-store versus online shopping preferences. Reliability was confirmed through Cronbach's alpha testing, which yielded an acceptable reliability score of 0.718. Additionally, a focus group of 10 respondents was conducted to gather qualitative insights on emotional responses and consumer preferences during and after the pandemic.

Findings

The majority of respondents were female (70%), with 58% aged between 18 and 29 years old. Most respondents reported shopping once a week during the pandemic, primarily out of concern for potential shortages. Panic buying was widespread, with consumers stockpiling essentials such as toilet paper, cleaning supplies, and non-perishable food items.

The data revealed that although online shopping increased during lockdowns, many consumers in Mauritius returned to in-person shopping as restrictions eased. Despite the global shift towards e-commerce, Mauritians still prefer the tangible experience of shopping in physical stores. However, the pandemic has permanently altered some aspects of consumer behaviour, such as heightened awareness of health and safety during shopping trips.

Shopping during the COVID-19 pandemic

The pandemic virus led to cross-border limited mobility and trade to slowdown (Mitsuyo and Kazunobu, 2022). Mauritius, being a developing country, relies a lot on imported products from countries like India, China, South Africa, and France among others (Mauritius Trade Easy, 2023). When the lockdown was implemented, several products were not entering the country and this shortage eventually resulted in panic buying. A Quarantine Act was put in place with all the measures to be respected by consumers while moving around for necessary purchases. As stated during the focus group, the respondents were forced to shop on specific days in alphabetical order and within a time limit. As such, because of the constraints and panic, consumers started going out more often when they were allowed to visit supermarkets. Mainly the reason being to purchase in case of a shortage. Similar to the global scenario, shelves in grocery stores were being emptied at a rapid pace, starting with toilet papers and cleaning supplies and later followed by basic food staples and necessities (Tymkiw, 2022; Cakirkaya and Kocyigit, 2024). This therefore caused some people to have no goods at home and others to have stocks more than required. Consumers bought more than usual and the supermarkets were eventually out of stock (Bandyopadhyaya and Bandyopadhyaya, 2024). This was reflected in the survey response and the below image shows the number of people who went out once a week for shopping during the Covid-19 pandemic.

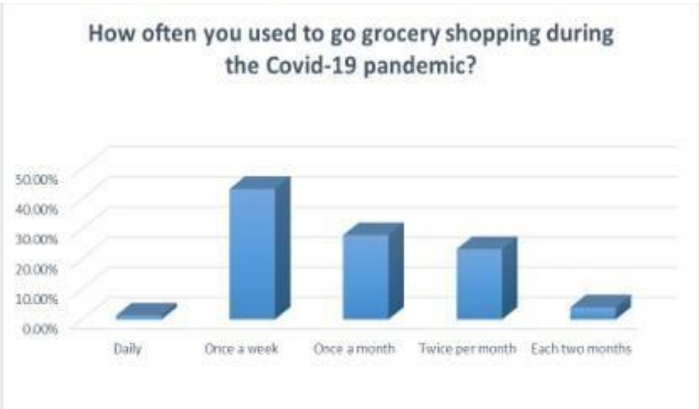


Figure 5: Grocery shopping during COVID-19 pandemic

As the bar chart shows, most of the respondents went grocery shopping once a week during the COVID-19 pandemic. They represented 48% of the population and were followed by the 28% who went once a month. Twenty-three per cent of the population went shopping twice per month whereas 4% went every two months.

Shopping after the COVID-19 Pandemic

Following the COVID-19 pandemic, many consumers returned to their old habits before the new normal (Pollak et al., 2022; Qaiser et al., 2023; Rose et al.,2023). As expressed by the respondents, before the COVID-19 pandemic, people were used to shopping with families and friends. However, when the sanitary measures were implemented, they were not able to go shopping in groups. Following the pandemic, the consumers returned to how they were before. Many people went shopping in groups again. The below pie chart shows the number of respondents who went grocery shopping in groups.

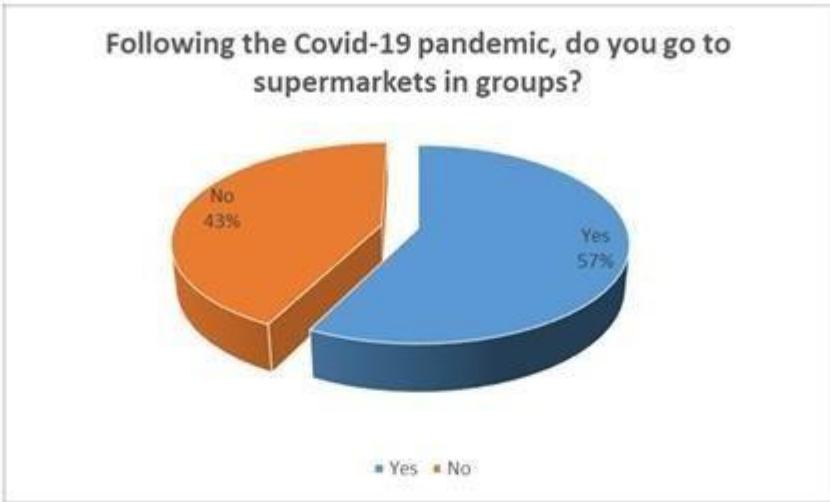


Figure 6: Going to supermarkets in groups

These figures show that consumers continued to go to supermarkets in groups again following the COVID-19 pandemic. Those consumers who changed their habit of going in groups expressed their safety and fear of crowds as the main reason. Moreover, consumers went shopping to the nearest supermarkets. Many factors were cited for this choice, with lower prices, fewer crowds, more choices and proximity being the main reasons.

Online Shopping and the COVID-19 Pandemic

The COVID-19 pandemic changed the way of shopping for many consumers. Whether they liked online shopping or not, the pandemic forced consumers to change their habits (Tymkiw, 2022). In Mauritius, online grocery shopping is still in its early stages. The COVID-19 pandemic has accelerated the shift towards the digital world and caused changes in online shopping behaviour which might be here for a long time (Theodorou et al., 2023; Afonso et al., 2024). Nowadays, online shopping exists for almost all products (if not all), from small items to groceries, cars or even land. Everything can be acquired through the internet nowadays. In Mauritius, the concept of online shopping has slowly been included in society for some years now. Therefore, applying online shopping to their daily routine is not so easy. Online grocery shopping is a new concept in Mauritius which is being implemented by some companies now. Some companies have the click-and-collect option while others provide home delivery services. The bar chart below demonstrates the number of people who opted for online grocery shopping in Mauritius, according to the sample population.

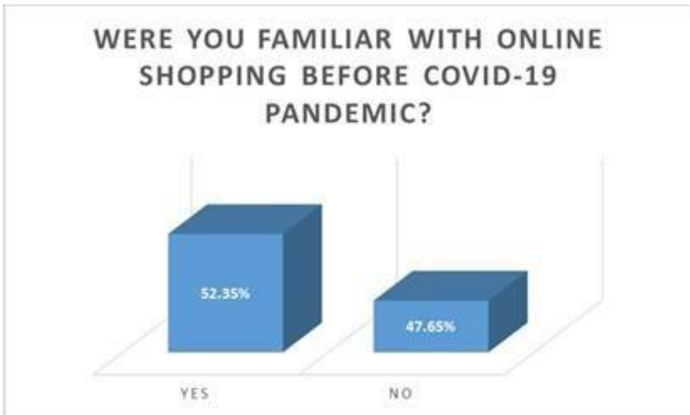


Figure 7: Online shopping before the COVID-19 pandemic

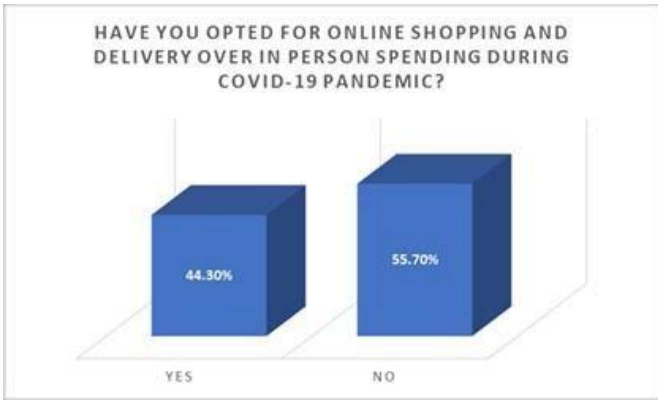


Figure 8: Online shopping over in-person spending during COVID-19 pandemic

The two bar charts above show that although the Mauritian population was familiar with online shopping before the COVID-19 pandemic, they did not switch to online shopping.

Customer Loyalty and COVID-19 Pandemic

Customer loyalty is an ongoing positive relationship between a customer and a brand (Tokinomo, 2022). Customer loyalty happens when a customer chooses to buy and support the same brand repeatedly. This could be due to the customer being satisfied with the product quality, price, or other factor. During the COVID-19 pandemic, when the lockdown was implemented, many products were not being shipped anymore. This caused the consumers to buy products which are available on the market and not focus on choosing only their preferred brands. Customer loyalty and customer expectations have both changed following the pandemic (Ebbo, 2023). Moreover, many consumers stopped going for in-store shopping and opted for online shopping.

However, in the Mauritian market, the population was neutral. The findings show that 51% of the population changed brands following the COVID-19 pandemic, the main reason being the shortages of their usual brands in supermarkets. Price was also another factor which influenced their choice of products. The same was seen on the global market, as food prices were on the increase due to various reasons, mainly due to the halt in production and international trade (Vos et al., 2022). As prices were increasing worldwide from raw materials to freight, consumers stated finding it difficult to maintain the same lifestyle and buy the same products. They had to switch to cheaper products.

Consumer Emotions during COVID-19

The global pandemic had an impact on every individual's state of mind. People did not know how to react, live, and adapt to the virus. Fear became a major factor affecting every consumer, especially when going to supermarkets (Lakshmidewi and Gunawan, 2021). This was caused mainly by the media coverage of the high death rate due to COVID-19. Rumours, word of mouth, bombardment of news, and talking about the suffering of patients and families from COVID-19 have led to people and consumers having a fear of going out in public. Similarly in Mauritius, fear dominated the state of mind of the population. Consumers were afraid of going to the supermarkets but they were helpless as they had to go out to get their food. Table 1 shows the emotions of the population during the COVID-19 pandemic.

Table 1: Emotions before Covid-19 pandemic

On a scale of 1 to 5, how did you feel (emotion) when you went to supermarkets during the Covid-19 pandemic?

Statistics

		Fear	Sadness	Helpless	Anger	Happiness	Peace	Pride
N	Valid	150	150	150	150	150	150	150
	Missing	0	0	0	0	0	0	0
Mean		3.54	2.65	3.07	2.61	2.31	2.09	2.01
Median		4.00	3.00	3.00	2.00	2.00	2.00	2.00
Mode		5	1	3	1	1	1	1

 ISSN: 3048-5320 (Online)

It can be seen in Table 1 how the consumers were scared of going to supermarkets during the COVID-19 pandemic with a mode of 5, which is the highest. It can also be seen that the consumers were somehow helpless as well compared to the other emotions. However, after the COVID-19 pandemic, consumers are no more afraid of going to supermarkets. Most of the consumers do not wear masks, keep social distancing or even sanitize their hands while doing their grocery shopping nowadays. This has completely changed from what it was during that period and below Table 2 shows the emotions of consumers now.

Table 2: Emotions after Covid-19 pandemic

On a scale of 1 to 5, how did you feel (emotion) when you went to supermarkets after the Covid-19 pandemic?

Statistics

		Fear	Sadness	Helpless	Anger	Happiness	Peace	Pride
N	Valid	150	150	150	150	150	150	150
	Missing	0	0	0	0	0	0	0
Mean		2.70	2.26	2.53	2.16	2.89	2.73	2.51
Median		2.50	2.00	2.00	1.00	3.00	3.00	3.00
Mode		1	1	1	1	1	1	1

It can be seen in the table above that the consumers were no more afraid and helpless of going to supermarkets following the COVID-19 pandemic with a mode of 1.

Healthy Eating and the COVID-19 Pandemic

Following the COVID-19 pandemic, it has been challenging for everyone to keep up with their fitness and exercise. Many gym places were closed and people were not allowed to go out. People had to adjust their exercise habits and adapt to the new environment. Many had to do their work out at home itself. This was therefore challenging for many people. Moreover, to keep fit, people had to eat healthier. It was being advised by many organisations, including the WHO (2023), for people to consume healthier products. Pieces of Advice such as taking lower sugar intake, salt, oils and fats, eating fruits and vegetables, staying hydrated and avoiding alcohol were being given. Moreover, WHO (2023) also advised to eat well-cooked foods and keep foods at safe temperatures. Such practice would help people to have a strong immune system to fight the virus. Many people started to switch products to buy healthier options instead. However, in the Mauritian market, healthy eating was not a common practice for everyone. Table 3 shows the importance of healthy eating by the population.

Table 3: Shopping behaviour after the COVID-19 pandemic

How far do you agree that your shopping behaviour has changed following the Covid-19 pandemic?

Statistics

		I now buy healthier products.	I now buy more basic products.	I now think more before spending money.	I now buy more local products.	I now spend less and buy cheaper products.	I still sanitize and wear masks while going to supermarkets	Overall, I changed my shopping habits and behaviour following the Covid-19 pandemic.
N	Valid	150	150	150	150	150	150	150
	Missing	0	0	0	0	0	0	0
Mean		2.55	2.28	2.04	2.69	2.54	3.51	3.05
Median		3.00	2.00	2.00	3.00	2.00	3.00	3.00
Mode		3	1	1	3	3	3	3

According to Table 3, the consumers of the Mauritian population were not focussing on buying healthier products following the COVID-19 pandemic. The data showed that the consumers were more or less neutral about buying healthier products. The reasons mentioned included the high price of healthier options and bio or organic products.

Conclusion

This study confirms that the pandemic has reshaped consumer habits in Mauritius, with long-lasting effects on retail behaviour. While many consumers reverted to in-person shopping post-pandemic, health and safety concerns remain paramount. Marketers and retailers must adapt their strategies to address these evolving preferences and expectations. Furthermore, the generational differences in response to the pandemic highlight the need for targeted marketing strategies that cater to the unique needs of Baby Boomers, Generation X, and Millennials. Understanding these shifts is crucial for businesses aiming to thrive in the post-pandemic market.

References

Afonso, A.P., Carneiro, J. and Azevedo, A.I., (2024). The Impact of COVID-19 on e-Commerce: A Systematic Review of the Literature on the Purchasing Behavior of Online Retail Consumers.

Bandyopadhyaya, V. and Bandyopadhyaya, R., (2024). Understanding the impact of COVID-19 pandemic outbreak on grocery stocking behaviour in India: A pattern mining approach. Global Business Review, 25(3), pp.750-770.

Blackburn, R. et al. (2020). Pandemic impacts on the retail sector. Journal of Economic Studies, 47(3), 123-145.

Blackwell, R.J. (2006). Consumer Behaviour. 10th Edition, Harcourt College Publishers, South Western-Thomson Learning, Cincinnati.

Cakirkaya, M. and Kocyigit, M., (2024). The Relationship between Consumer Life Orientation and Panic Buying Behaviour in the COVID-19 Pandemic Process.

Chauhan, V. and Shah, H. (2020). 'An Empirical Analysis into Sentiments, Media Consumption Habits, and Consumer Behaviour during the Coronavirus (Covid19) Outbreak' Purakala (UGC Care Journal). Vol 31, No. 20. pp. 353-378.

Euronews. (2020). The economic fallout of the COVID-19 pandemic. Retrieved from [Euronews website].

Hassen, T. B. Bilali, H. E. Allahyari, M. H. Berjan, S. and Fotina, O. (2021) 'Food purchase and eating behavior during the COVID-19 pandemic: A crosssectional survey of Russian adults', Appetite. pp. 1-10.

Jisana T. K. (2014). 'Consumer Behaviour Models: An Overview', Sai Om Journal of Commerce & Management. Vol. 1, Issue No. 5. pp. 34-43.

Jiang, Y and Stylos, N. (2021). 'Triggers of consumers' enhanced digital engagement and the role of digital technologies in transforming the retail ecosystem during COVID-19 pandemic', Technological Forecasting and Social Change, Vol 172.

Juan, J. B. R. Santiago, G. B. and Edyta, G. A. (2022). 'Neuroeconomy and Neuromarketing: The Study of the Consumer Behaviour in the Covid-19 Context', Frontiers in Psychology. March, No. 13, pp. 1-2.

Kacen, J. J., & Lee, J. A. (2002). The influence of culture on consumer impulsive buying behavior. *Journal of Consumer Psychology, 12*(2), 163–176. https://doi.org/10.1207/S15327663JCP1202_08

Keller, K. L., Parameswaran, M. G. and Jacob, I. (2011). Strategic brand management: Building, measuring, and managing brand equity. Pearson Education India.

Klopping, I.M. and McKinney, E. (2004) Extending the Technology Acceptance Model and the Task-Technology Fit Model to Consumer E-Commerce. Information Technology Learning and Performance Journal, 22, 35-48.

London Business School (2020). The economics of a pandemic: the case of Covid-19, from: https://icsb.org/wpcontent/uploads/2020/03/LBS_Covid19_final.pdf.pdf.pdf.pdf-1.pdf.pdf.

Madhavan, M., & Kaliyaperumal, D. (2015). Consumer Buying Behavior-An Overview Of Theory and Models. *Journal of Humanities and Social Sciences, 1*.

Mazzoleni, S. Turchetti, G. and Ambrosino, N. (2020). 'The COVID-19 outbreak: From "black swan" to global challenges and opportunities', Pulmonology, pp. 117–118.

McKinsey & Company (2021). China Consumer Report 2021 - Understanding Chinese Consumers: Growth Engine of the World

NiewczasDobrowolska, M., GórkaChowaniec, A. and Sikora, T., 2024. CHANGES OF CONSUMER BEHAVIOR CAUSED BY THE COVID-19 PANDEMIC. International Journal for Quality Research, 18(1).

Parment, A. (2013). 'Generation Y vs. Baby Boomers: shopping behavior, buyer involvement and implications for retailing', Journal of Retailing and Consumer Services. pp. 189–199.

Shehla Qaiser, Muhammad Adnan Bashir, Muhammad Sufyan Ramish, Junaid Ansari, Raghava Gundala & Mohammad Ali Bait Ali Sulaiman (2023). Impact of consumer consumption adjustments on habits and purchase behavior during COVID-19, Cogent Business & Management, 10:3, 2265077, DOI: 10.1080/23311975.2023.2265077

N Ramya, Dr. SA Mohamed Ali. Factors affecting consumer buying behavior. Int J Appl Res 2016;2(10):76-80.

Rose, N., Rowe, F. and Dolega, L., (2023). How consumer behaviours changed in response to COVID-19 lockdown stringency measures: A case study of Walmart. Applied Geography, 154, p.102948.

Sandhusen R, (2000), Marketing, Barron's Educational Series

Safara, F. (2022). 'A Computational Model to Predict Consumer Behaviour During COVID-19 Pandemic', Computational Economics. November. pp. 15251538.

Schiffman, L., Hansen H. and Kanuk L. (2007). 'Consumer Behaviour: A European Outlook', London: Pearson Education

Sheth, J. (2020). 'Impact of Covid-19 on consumer behavior: Will the old habits return or die?', Journal of Business Research. pp. 280-283.

Theodorou, A.; Hatzithomas, L.; Fotiadis, T.; Diamantidis, A.; Gasteratos, A. The Impact of the COVID-19 Pandemic on Online Consumer Behavior: Applying the Theory of Planned Behavior. Sustainability 2023, 15, 2545. https://doi.org/10.3390/su15032545

Vos, R., Glauber, J., Hernandez, M. and Laborde, D. (2022). COVID-19 and rising global food prices: What's really happening? From IFRU: https://www.ifpri.org/blog/covid-19-and-rising-global-food-prices-whats-reallyhappening

 ISSN: 3048-5320 (Online)

Opportunities and Challenges of Promoting Inclusive Secondary Education Among the Ethnic Children in Rural Area, Nong District, Savannakhet Province, Lao Pdr.

Kongmy NONGBOUDTALATH
Lecturer, International Programs, Savannakhet University, Savannakhet, Laos.

Anouxay SOUKHARATH
Lecturer, International Relations Division, Savannakhet University, Laos.

Abstract

The study focused on the opportunities and challenges of promoting inclusive secondary education among the ethnic children in rural areas, Nong district, Savannakhet province, Lao PDR. The study sought to describe the status of inclusive secondary education among the ethnic children in rural areas; to determine factors that promote (opportunities) or hinder (challenges) inclusive secondary education among the ethnic children in rural areas; and to propose possible solutions in promoting inclusive secondary education among the ethnic children in rural areas. Data were obtained through individual surveys and key information interviews and were analyzed through descriptive and correlational statistics.

Findings from the secondary data showed that the remote areas and ethnic minority districts had significantly lower net enrolment rates relative to national and provincial centers. This illustrated that there were disparity rates on secondary education at the national level and those from rural or remote areas. This situation was confirmed in the Nong district, as shown from the results of this study. The contributing factors could be from the conditions in rural areas, such as low household income, traditional custom beliefs, and infrastructure, i.e., the road to school is inconvenient, especially in the rainy season, and the school facilities are under construction, such as dormitories and, school buildings, among others. Thus, there is a need to improve the condition and services in the rural areas to truly promote inclusive secondary education.

This study also confirmed that governance and management are important keys to promoting inclusive secondary education in rural areas like the Nong district. Hence, the participation and collaboration of these institutions from the national and local levels in addressing the issues and concerns, particularly in the rural areas, was found to be an important factor in promoting inclusive secondary education.

Keywords: *Inclusive Secondary Education, Ethnic children in rural area*

Introduction

Education is a noble thing for the people and an important human right from which no one can be excluded due to its contribution to the development of people and of society. The right to education in the broadest sense will go beyond access to free and compulsory education. In order to fully enjoy this right, high-quality education is required to promote the development of a variety of individual capabilities, namely, the right to education as a lifelong learning right (UNESCO Bangkok, 2008).

Since the early 2000s, the Lao government has emphasized the development of education as central to the development of human resources. Thus, the government has allocated 11% to 15% of the annual budget for education, infrastructure development in the education sector, and improvement of the learning and teaching system from pre-school education up to higher education (Ministry of Planning and Investment, 2013). In addition, the Lao government focuses on implementing the Millennium Development Goals (MDG) to encourage six-year-old children to access primary school. In addition, the students who complete primary school are encouraged to continue to pursue secondary school education by improving local projects and programs, particularly in developing the quality of existing education programs like providing food supplements in schools and construction of basic facilities for students. However, the expansion of education, especially the early preschool education in rural and remote areas, is not yet accessible.

The enrolment rate in secondary school is progressing well in the whole country. In 2011, it reached 62.9%, and in 2015 it reached 78.1%. On the other hand, the students who finished lower secondary school increased from 62,765 in 2011 to 77,471 in 2015. At the same time, students who completed upper secondary school increased from 40,194 in 2011 to 47,967 in 2015, but the equality index of women-men in the upper secondary school is a little more like from 0.83 to 0.84 (MoES, 2016). However, the remote and ethnic minority

ISSN: 3048-5320 (Online)

districts have significantly lower net enrolment rates relative to national and provincial centers, particularly in the Nong district. This district is home to a large number of ethnic minority groups and had widespread poverty and correspondingly low overall net enrolment rates, specifically only 14.7% in lower secondary school and 3.2% in upper secondary school in the academic year 2015-2016 (NDEO, 2016). This shows that there is disparity in the enrollment rate of secondary education at the national level and those from rural or remote areas.

In the past, the Lao education system consisted of five years in primary education, six years for secondary education, one or two years for post-secondary education, and three to seven years for tertiary education. The level of education after primary education, referred to as secondary education, caters to children and adolescents from ages 11 to 16 and is divided into two stages: lower secondary education and upper secondary education. Since 2007, under the National Education System Reform Strategy (NESRS), the lower secondary education is extended to four years, catering to 11 to 14 years old. Upper secondary education is further divided into two streams, namely, general education and vocational education, which included the training of teachers. Based on the Lao Education Law of 2000, all of the education levels should be provided free of charge to all children. Article III, in particular, has a statement on free secondary schooling (UNESCO Bangkok, 2008).

Having access to education can change not only the quality of education and sports but can enable the country to establish linkages in the region and be at par with international trends and standards. To achieve the goal, the Savannakhet Provincial Education Division (SPED), has focused on the following targets: 1) provide the growth opportunities of education for the remote areas and for deprived children, poor, women, minorities, and people with disabilities to be educated thoroughly, and enable people to set lower secondary school graduation as the default background; 2) expand opportunities for secondary school by offering basic vocational training and thus enabling community development; 3) improve executive management level through the planning of a staff-led management instead of an inherited replace system solution that answers the teacher insufficiency in remote areas; and 4) improve lower secondary school enrollment rate to reach 69.80% and completion rate at 94.2%, but the drop rate remains at 5.20%; 5) increase upper secondary school enrollment to 40.04%, promotion of Grade 4-5 to 90.3%, the rate of promotion–completion of upper secondary school at 96.4%, but the drop rate remains at 3.4% and fall rate remains at 0.2%. In secondary schools that have a library and laboratories, the rate of studying vocational is up to 20% (SPED, 2015).

To approach the intended target, the Nong District Education Office (NDEO) developed the targets works and activities to be implemented and established additional three (3) lower secondary schools in the Kaenglin, Tamluang, and Daenvilay villages.

Furthermore, to make education in the district grow frequently, the NDEO strives to achieve the following numbers: (1) increase the survival rate from primary school to lower secondary school up to 85%; (2) increase the lower secondary school enrollment rate up to 37%; 3) lower secondary school net enrollment rate to 16%; (4) increase the completion rate to 90%; (5) decrease the repetition (or failing) rate to two percent (2%); and (6) decrease the drop rate to seven percent (7%). They expect to develop education in the academic year 2016-2017 by continuing human resources development in accordance with the strategy of development and structure of the economy of the country through required linkages to international education preschools (NDEO, 2015).

In 2017, the NDEO identified the priority tasks and activities that must be performed. The NDEO collaborates with the village parents and guardians to encourage children to attend classes and to initiate school construction. Furthermore, all of the organizations participate in the education sector, especially in discussions regarding the budget for building the facilities and the initiating cooperation from organizations. As an example, encouraging cooperation from the community in the grassroots through the construction of sanitation facilities, is being done.

Although the NEO had plans to expand the lower secondary school in each cluster of the villages, the implementation in the past was not achieved due to lack of classrooms and equipment to use in teaching and learning. Moreover, the number of continuing students from primary to secondary schools became less, indicating that the secondary school in that area cannot be expanded. In terms of the ratio of teachers to students, there are enough teachers; however, they are not distributed accordingly. Some areas, especially the urban school, have a very high number of teachers, while the remote regions lack them (NDEO, 2015).

 ISSN: 3048-5320 (Online)

"As a country striving towards success, socio-economic development, including the education sector, is full of various challenges. Up till now, the education indicators in Lao PDR reveal significant gender disparities, large differences between rural (especially off-road) and urban areas, and among ethnic groups. The incidence of these incongruences is unevenly spread across different parts of the country" (EFA, 2014).

The present-day significance of the problem of education of ethnic children in the rural areas in Nong district is that the students who completed the primary school do not continue to secondary education despite the current efforts of the government to improve Lao education. For every 100 primary students (ethnic children) in the Nong district, those who continue their education decrease to an alarming number of 30. Furthermore, 56.72% of primary completion continues to secondary education; the survival rate in lower secondary education is 40.37% and only 21.69% in upper secondary education (NDEO Statistics, 2015).

Objectives

This study aimed to determine the opportunities and challenges in promoting inclusive secondary education among the ethnic children in rural area in Nong district.

- To describe the status of inclusive secondary education among the ethnic children in rural area in Nong district
- To determine factors that promote (opportunities) or hinder (challenges) inclusive secondary education among the ethnic children in rural area in Nong district and;
- To propose possible solutions to promote inclusive secondary education among the the ethnic children in rural area in Nong district.

Research Question

- How inclusive is secondary education for children of rural farmers in the Nong district?
- What are the factors that promote (opportunities) or hinder inclusive secondary education among children of rural farmers in the Nong district?
- What are possible solutions to promote inclusive secondary education among the children of rural farmers in the Nong district?

Literature Reviews and Research Frameworks

The opportunities and challenges in promoting inclusive secondary education among the ethnic children are influenced by the implementation of educational programs of various institutions namely national, province, district, schools, and family.

The framework of the study provides information on the several important factors that affect the opportunities and challenges of promoting inclusive secondary education. The framework indicates that it is important to determine the status of inclusive secondary education, and the factors that promote (opportunities) or hinder (challenges) inclusive secondary education among children of rural farmers such as governance and management system and the socio-economic characteristics of the respondents. From these findings, this study proposes the possible strategies on how to promote inclusive secondary education among the children of rural farmers in the Nong district.

Governance and management were identified through education characteristics or programs based on the infrastructures or facilities that affected the opportunities of institutions, recruitment of the staff and teachers and the students. This was also determined through education management and education services such education programs and budget allocation as well as participation of the teachers and the community. The policies and strategic plans are the tasks that aid in transforming these institutions to achieve the goals.

 ISSN: 3048-5320 (Online)

Socio-economic factors are included as independent variables which affect the opportunities and challenges of promoting inclusive secondary education. These factors particularly the gender, age, education certification, status of occupation, experience, religious affiliation, household size, household income, household expenditure, and household savings of the respondents that affect the factors that promote (opportunities) or hinder (challenges) inclusive secondary education among the children of rural farmers in the Nong district.

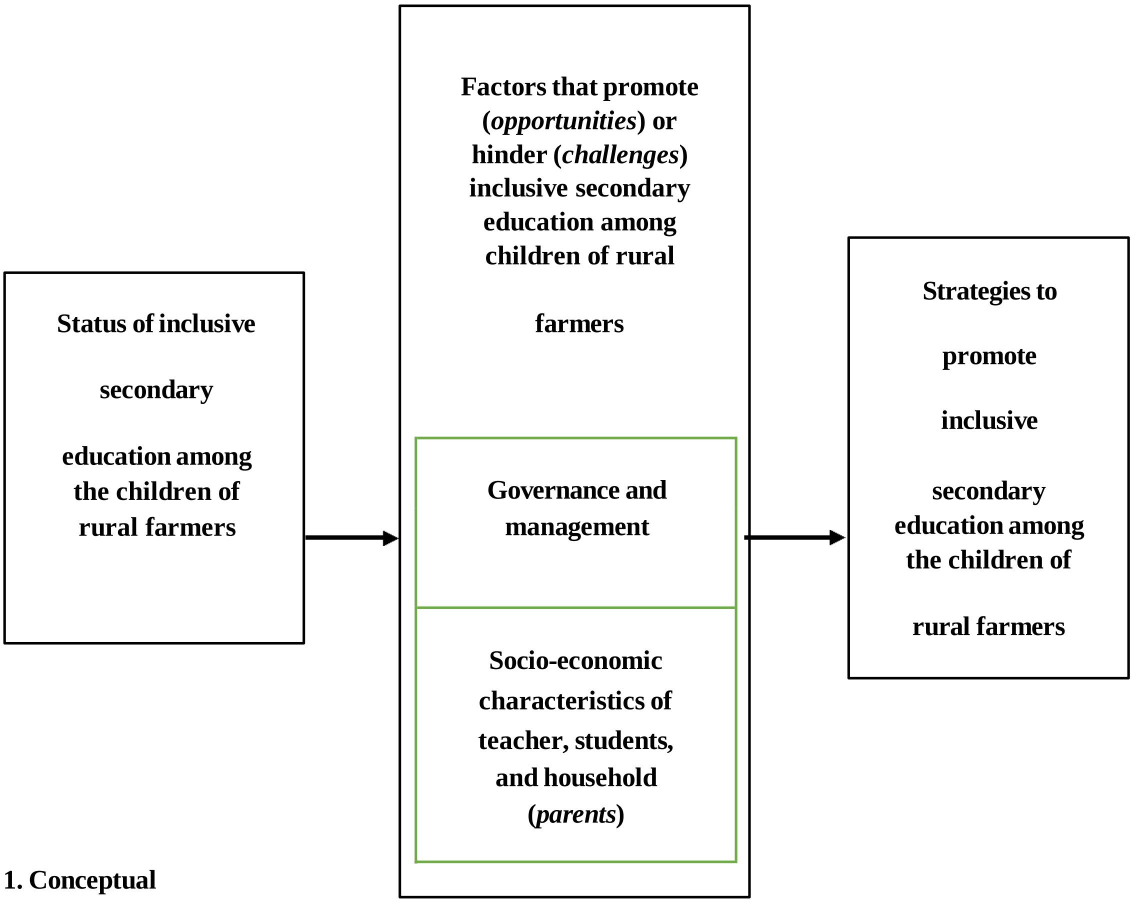


Figure 1. Conceptual

Research Methodology

The respondents of the study were selected from four (4) clusters of villages within the 12 villages and six (6) schools in the Nong district. For the respondents, sixty (60) permanent and volunteer teachers in six (6) secondary schools were selected. Purposive sampling was employed to determine the sample size. The majority of respondents are students who are ongoing study in six (6) schools, particularly from the group of 999 ethnic students. The Yamane formula (1967) was employed to the number of students who are still studying in order to determine the sample size.

From the result of the computation, 204 study samples were randomly selected from a population of 999 ethnic students. Using simple random sampling of an average of six (6) schools, 34 respondents in each school within the Nong district will comprise the study sample.

For the dropout students in the 12 villages in the Nong district, accidental sampling was employed to determine the sample size. There are four (4) people in each village, thus, 48 respondents were selected. The same technique and the same number were used for the household respondents. One
(1) Village Education Development Committee (VEDC) in each village, six (6) directors from six (6) schools and one (1) head NDEO were selected using Purposive Sampling.

Data Collection Procedures

For the primary Data Collection, Key Informant Interviews (KII) were conducted. The researchers interviewed the leader of NDEO, directors of secondary schools, and the VEDC in each village. Data were gathered through scheduled interviews. Questionnaires were provided for the secondary education teachers since they are the implementers. On the other hand, parents of students as well ongoing and dropout students were asked regarding their perceptions of education development.

Secondary data were obtained from the available documents of various agencies and institutions including the national government departments, local government units, and libraries. Other sources included published and unpublished documents related to the subject such as official reports, articles, seminar papers, and the internet.

Data Analysis

The data was encoded using the Statistical Package for the Social Sciences (SPSS) for analysis. Quantitative data analysis using descriptive statistics such as frequency, percentage, mean and median, minimum value and maximum value were used to describe the characteristics of the variables obtained in the survey. On the other hand, for the qualitative analysis, the data were categorized, compared and described.

For inferential statistics, the Pearson’s correlation coefficient was used to test the relationship of the continuing or dropout children of the farmers with their socio-economic characteristics.

Results and Discussion

The status of inclusive secondary education among children of rural farmers in the Nong district

As previously cited, this research was conducted in the Nong district which is the mountainous area where the majority of population is ethnic group. In addition, the target respondents are mostly employed in agriculture as the main work from the past to the present. Hence, in this study, the ethnic children refer to the children of rural farmers. The total rice field area is 853 has, gardening cultivation area is 1,132 has, and shifting cultivation area is 667 has (NAO, 2015). Furthermore, the main crops are rice, banana, cassava, industrial crop, orchard, among others. This is an important occupation and has an impact on the community development system of the Nong district. Therefore, in order to initiate community development, the main principle is to support education development by promoting inclusive secondary education among children of farmers in the area.

Since the early 2000s, the Lao government has emphasized development of education as central to the development of human resources. Thus, the government has allocated 11% to 15% of the annual budget for education, infrastructure development in the education sector, and improvement of the learning - teaching system from pre-school education up to higher education (MoPI, 2013). As of the present, the Lao government focuses on implementing the Millennium Development Goals (MDG) to encourage six-year-old children to access primary school; and students who complete primary school are encouraged to continue to secondary school by improving local projects and programs, particularly in developing the quality of existing education programs like providing food supplements in school and construction of basic facilities for students (MoES, 2015). The enrollment rate in secondary school is progressing well in the whole country. In 2011 and 2015, it reached 62.9% and 78.1%, respectively. On the other hand, the students who finished lower secondary school increased from 62,765 in 2011 to 77, 471 in 2015. Students who completed upper secondary school increased from 40, 194 in 2011 to 47, 967 in 2015. However, the remote area and ethnic minority districts have significantly lower net enrolment rates relative to national and provincial centers, particularly in the Nong district (which is home to a large number of ethnic minority groups). It has widespread poverty and correspondingly every 100 primary students (ethnic children), those who continue their education decreased to an alarming number of around 30 and 56.72% of primary completion continue to secondary education. There is very small net enrollment rate (14.7%) in lower and only 3.2% in upper secondary school. Meanwhile, the enrollment rate is about 35.1% in lower while in upper secondary school is only 7.9%. Furthermore, the dropout rate of lower secondary school is about 11.7% and 8.7% in upper secondary school. There is also a small repetition rate both in the lower and the upper secondary school with the percentages of 1.2% and 0.7%, respectively. However, there is a high percentage of completion rate in terms of who are currently studying, there is 87.1% in the lower and 90.6% in upper secondary school while the survival rate in lower secondary education is 40.37% and only 21.69% in upper secondary education (NDEO Statistics, 2016). This shows that there is disparity rate of secondary education at the national level and those from the rural or remote areas (See Figure 2).

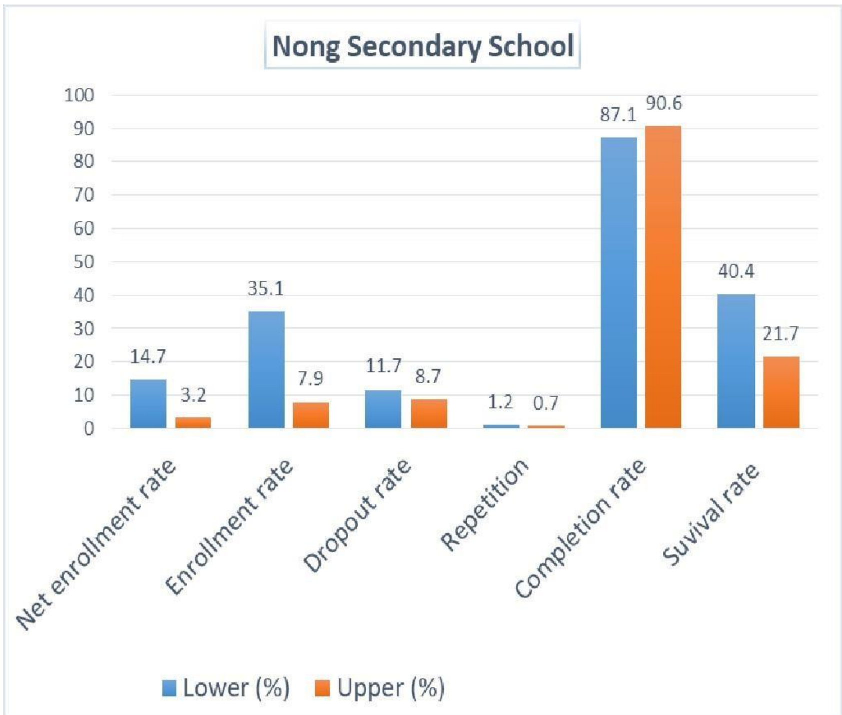
Another challenge for the rural and remote areas is on how to reduce the rate of repetition class of Grade 1 (P1) in the primary education sector. It remains high because of the following: the far distance between home and the school and the lack of access to education in preschool which could prepare them for Grade 1 (P1). In addition, most elementary schools have incomplete grade levels for primary education (i.e. some schools have only Grades 1-3), and multi-grade teaching due to limitation of teachers and facilities.

The present-day significance of the problem of education of ethnic children or the children of farmers in the rural areas in the Nong district is that the students who completed the primary school do not continue to secondary education despite the current efforts of the government to improve Lao education.

The 2015 EADSNE Summary Report stated that “many of the approaches that appeared to be effective in primary schools also contribute to effective inclusion in secondary schools namely co-operative teaching, cooperative learning, collaborative problem-solving, heterogeneous grouping, and effective teaching. In addition, the introduction of a home area system and a re-structuring of the learning process seem to be crucial approaches at the secondary school level”.

In 2017, NDEO identified the priority tasks and activities that must be performed. The NDEO collaborates with the development of the village guardians and parents to encourage children to attend classes and to initiate school construction. Furthermore, all of the organizations participate in the education sector, especially regarding the budget on building the facilities and the cooperation from organizations. In the grassroots, for example, getting cooperation from the community in the construction of sanitation facilities, is being done.

Although the NEO had plans to expand the lower secondary school in each cluster of villages, the implementation in the past was not achieved due to lack of classrooms and equipment to use in teaching and learning. Moreover, the number of continuing students from primary to secondary schools becomes less, indicating the secondary school in that area cannot be expanded. In terms of the ratio of teachers to students, there are enough teachers, however, they are not distributed accordingly. Some areas, especially the urban school, have very high number of teachers, while the remote regions lack them (NDEO, 2015).



Source: *NDEO Statistics,*

Figure 2: Status of Secondary education in Nong

The dropout rate is still high and the survival rate is low. Based on the observations of the researcher, these were affected by many conditions such as low household income, traditional customs and beliefs, and infrastructure conditions such the road to the school is more inconvenient especially during the rainy season.

Factors that promote (opportunities) or hinder (challenges) inclusive secondary education among children of farmers in Nong district

Since the administration of national education system in Lao PDR is characterized by deconcentrating management, governance and management is an important key in education development, particularly in promoting inclusive secondary education in the Nong district. The factors that promote inclusive secondary education among children of farmers in the Nong district include the participation of teachers and the community in the rural area due to the participation. This is the key word that is used to identify the governance and management system of secondary schools in the Nong district. As defined by Davis and Newstrom (1989), "participation as the mental and emotional involvement of persons in group situations that encourage them to contribute to the group of goals and share responsibility for them". The authors emphasized three important ideas in this definition which are involvement, contribution, and responsibility. Moreover, Honadel (1980) sees participation as a necessary condition for any meaningful development effort. In the development process, participation implies motivating individuals to take initiative and mobilizing people to work for overall societal development. It is particularly likely to be achieved not only in the decision-making process to determine societal goals and the allocation of resources to achieve them but also in the voluntary execution of resulting program and projects. Moreover, the readiness in education development such curriculum, school facilities, and infrastructures are also quite comfortable.

The challenges affecting promotion of inclusive secondary education among the children of farmers in the Nong district include low household income, language barriers, traditional custom beliefs, low awareness about the importance of education of parents. A student who has graduated will not be able to pursue higher education and can no longer have a good job after graduation because the dropout rate is high and the school service area is still far away. In addition, some infrastructures are inconvenient, such as school facilities and off road, especially in the rainy season.

Based on the factors found, the relationship of variables was tested by using the Pearson correlation coefficient. Table 1 shows the relationship between the children of the farmers in schooling and the household size. Based on the Pearson correlation table, there is a highly significant relationship since the significant level is 0.002 less than "p" value 0.01 (0.002<0.01). By considering the correlation coefficient (r), the value of (r) is 0.415^{**} means there is a moderate relationship among children of the farmers in schooling and their household size.

Furthermore, the relationship between the children of the farmers in schooling and the number of children of the farmers is highly significant since the significant level is 0.000 less than "p" value 0.01 (0.000<0.01). By considering the correlation coefficient (r), the value of 0.671^{**} means the relationship among children of the farmers in schooling and the number of farmers' children are related and there is a substantial relationship.

On the other hand, there is a high significant relationship between children of the farmers in schooling and the household incomes since the significant level is 0. 008 less than "p" value 0.01 (0. 008<0.01). By considering the correlation coefficient (r), the value of (r) is 0.349^{**} means there is a moderate relationship among children of the farmers in schooling and their household incomes.

As Lhagyel (2016) mentioned, the level of educational attainment in children shared a strong relationship with the level of household income. Therefore, lower income households would not be able to afford the same level of education that a higher income household can afford.

Based from the Pearson correlation table, there is a high significant relationship between the children of the farmers in schooling and the household expenditure, since the significant level is 0.006 less than "p" value 0.01 (0. 006<0.01). By considering the correlation coefficient (r), the value of (r) is 0.363^{**}, it means there is a moderate relationship among children of farmers in schooling and their household expenditure.

With regards to household saving factor, that there is a significant relationship since the significant level is 0.015 less than "p" value 0.05 (0.015<0.05) between the children of the farmers in schooling and their household saving factor. By considering the correlation coefficient (r), the value of 0.313* means the relationship among children of the farmers in schooling and their household saving factor are related and there is a moderate relationship among them.

Table 1. Relationship between schooling and social economics of the children of the farmers

The Relationship of the Variables	Educ	Occu	HSz	No.Ch	HI	HE	HSv
Children of the farmers to Schooling	.224^{ns}	.142^{ns}	.415**	.671**	.349**	.363**	.313*
Significance	.063	.168	.002	.000	.008	.006	.015

`Note:
** Significant at the 0.05 level.*
*** Highly significant at the 0.01 level.*
^{ns} *Not significant*

Legend:
Educ *= Education* ***Occu*** *= Occupation* ***HSz*** *= Household size*
No. Ch *= No. of Children* ***HI*** *= Household income* ***HE*** *= Household Expenditure*
HSv *= Household Saving*

Table 2 shows that the relationship between the dropout student and the household size is of high significance since the significant level is 0.000 less than "p" value 0.01 (0.000<0.01). By considering the correlation coefficient (r), the value of 0.594** means there is a substantial relationship among children of farmers who dropout from school and their household size.

In 2008, Maralani stated that family size and educational attainment are likely to be jointly determined, at least to some degree, with families choosing the level of fertility that is likely to produce children with the preferred level of education for a given family, context, or society. The relationship between family size and educational attainment of children can have demographic feedbacks as well. Small families may raise educational attainment, which in turn may lower fertility in the next generation. Moreover, if the effect of family size grows more negative or positive over time, these aggregate demographic relationships may intensify or accelerate.

Furthermore, the relationship between dropout students and the number of children of the farmers from the Pearson correlation table showed that there is a high significant relationship since the significant level is 0.000 less than "p" value 0.01 (0.000<0.01). By considering the correlation coefficient (r), the value of 0.725** means there is a strong relationship among the children of farmers who dropout from school and the number of children of farmers. Since the variables are of high significance and has a strong relationship, it confirms that the number of children affects the promotion of inclusive secondary education. Parents cannot support all the children to complete education based on household income, household expenditure, and household savings.

As shown in the relationship between the children of farmers who dropout from school and the household incomes, there is a high significant relationship since the significant level is 0. 007 less than "p" value 0.01 (0. 007<0.01). By considering the correlation coefficient (r) found that the value of 0.349** means there is a moderate relationship among farmers' children who dropout and their household incomes. These shows that if families have low income, this means that the family cannot support their children to access or complete a high level of education.

Based from the Pearson correlation table, there is a significant relationship between the children of farmers who dropout from school and the household expenditure since the significant level is 0. 014 less than "p" value 0.05 (0. 014<0.05). By considering the correlation coefficient (r), the value of 0.319* means there is a moderate relationship among children of farmers who dropout and their household expenditure.

For the household saving factor, it shows that there is a high significant relationship since the significant level is 0.004 less than "p" value 0.01 (0.004<0.01) between the children of the farmers who dropout from school and their household savings factor. By considering the correlation coefficient (r), the value of 0.373** means the relationship among dropout students and their household savings factor are related and there is a moderate relationship between them. As found in the research, the average of household savings is 1,596,833 LAK per year. It is a very low amount for living. It is hard to talk about supporting their children in accessing education.

 ISSN: 3048-5320 (Online)

Table 19. Relationship between dropout students and social economic

Relationship of the Variables	Educ	Occu	HSz	No.Ch	No. Sch	HI	HE	HSv	Nns	Nee	Fsch	Nhf
Dropout students	.125ns	.057ns	.594**	.725**	.198 ns	.349**	.319*	.373**	-.083ns	-.234 ns	.015 ns	-.176 ns
Significance	.198	.350	.000	.000	.089	.007	.014	.004	.287	.055	.459	.116

Note:

* *Significant at the 0.05 level.*

** *Highly significant at the 0.01 level.*

ns Not signifi

Legend:

Educ *= Education* ***Occu*** *= Occupation* ***HSz*** *= Household size*

No. Ch *= No. of Children* ***No. Sch*** *= No. of Schooling* ***HI*** *= Household income*

HE *= Household Expenditure* ***HSv*** *= Household Saving* ***Nns*** *= No need to stud*

Nee *= No educ-equipment* ***Nhf*** *= No one help family* ***Fsch*** *= Far from school*

Conclusions

As cited earlier, since the early 2000s, the Lao government has emphasized development of education as central to the development of human resources. Thus, the government has allocated 11% to 15% of the annual budget for education, infrastructure development in the education sector, and improvement of the learning - teaching system from pre-school education up to higher education (MoIP, 2013). Meanwhile, the Lao government focuses on implementing the MDG and SDG4 to encourage six-year-old children to access primary school. In addition, students who complete primary school are encouraged to continue to secondary school.

In 2011, the enrollment rate in secondary school was progressing well in the whole country, it reached 62.9% and in 2015 reached 78.1%. On the other hand, the students who finished lower secondary school increased from 62,765 in 2011 to 77, 471 in 2015; and students who completed upper secondary school increased from 40, 194 in 2011 to 47, 967 in 2015. (MoES, 2016). However, the remote and ethnic minority districts have significantly lower net enrolment rates relative to national and provincial centers, particularly in the Nong district (which is home to a large number of ethnic minority groups). This showed that there were disparity rates of secondary education at the national level and those from the rural or remote areas. In terms of dropout rate, it is still high and the survival rate is low in the Nong district. This situation was confirmed as shown from the results of this study. Based on the researcher's observation, these could be from many conditions such as low household income, traditional custom beliefs and infrastructure conditions such the road to school is inconvenient especially in the rainy season, the school facilities are under construction such as dormitory, school building, among others. Thus, there is a need to improve the condition and services in the rural areas to really promote inclusive secondary education.

This study also confirmed that governance and management is an important key of promoting inclusive secondary education in rural areas like the Nong district. The participation and collaboration of these institutions from the national and local levels in addressing the issues and concerns particularly in the rural areas was found to be an important factor in promoting inclusive secondary education.

Recommendations

This research provided lessons and insights on promoting inclusive secondary education in Nong district, Savannakhet province, Lao PDR. The results of this research can be used to encourage children of rural farmers to access secondary education in Nong district Savannakhet province, Lao PDR. Thus, this study recommended the following:

Since this study identified the opportunities and challenges in accessing the secondary education in the rural villages, especially the children of ethnic farmers particularly in the Nong district, Savannakhet province, results could be used for the improving the institutional education in the Nong district such as the secondary schools who act as the implementers, and for NDOE in taking necessary steps to improve the design of the approach in developing secondary education, devising policy framework and in the implementing the program in developing the education sector to maximize the benefits of providing access to secondary education among poor people in the rural area as a means to attain the sustainable development.

It is also recommended that various institutions such as the Nong district Administrative Office and other NGOs to take into consideration the importance of participation among stakeholders such as the school administrators, teachers, parents, and the community on the planning and implementation of the strategic planning for secondary education development. Results of this study can also be used as reference for revising and/or improving future paths of education and development projects especially in the context of developing education as the first priority in the rural areas.

To address the current traditional custom and beliefs especially from the rural areas, it is recommended that the importance of education should be published and made available to the local citizens in general by the school or NDEO. Also, the collaboration and partnership with private sectors or local markets should also be strengthened to assure or support those who graduated from the rural areas in finding better jobs after graduation.

The linkages and coordination between other Centers are also recommended to improve community educational services. The training should be created to strengthen the capacity in leading for administrators and for them to know their roles and responsibilities clearly. The lessons learned from non-school education system like vocational training to the deprived people in previous rural development performance and the infrastructure and non-school education system should also be improved.

 ISSN: 3048-5320 (Online)

Moreover, the infrastructure, school facilities, and non-school education system should be improved further. If aiming for eradication of illiteracy, the MoES should be seriously implemented on the non-school education system. This will effectively result in the increasing the rate of literacy of adults and reducing poverty, along the extension of the primary education. Thus, the MoES has a strategic focus on two groups of people: (1) children who dropped out of school and never attended primary school; (2) adults who are illiterate and never entered primary school.

This research was conducted particularly in the Nong district, Savannakhet province, 17Lao PDR. It is recommended that future researches could be conducted in other areas in order to know the differences of promoting inclusive secondary education in other areas (such as in urban areas or rural areas but different locations) for comparison and to identify how their characteristics affect in promoting inclusive secondary education given the different situations.

References

Davis, K. And Newstrom, J.W. 1989. Human Behavior at Work: Organizational Behavior. New York: McGraw Hill International Book Company.

Decree No. 315/PM, (2013). Development Human Resources Planning, Decree No. 315/PM, dated 22/11/2013. (Original was published in Lao).

Education for All (Efa). 2014. Teaching and learning: achieving quality for all. France: United Nations Educational, Scientific and Cultural Organization

European Agency for Development In Special Needs Education (Eadsne). 2005. Inclusive Education and Classroom Practice in Secondary Education. Middelfart, Denmark: European Agency for Development in Special Needs Education

Honadel, et al. 1980. Integrated Rural Development: Making Network Development Alternative, Inc. Washington, D.C.

Lhagyel, S. Z. 2016. Relationship between Household Income and Education. Bhutan: Royal Institute of Management

Maralani. V. 2008. The Changing Relationship Between Family Size and Educational Attainment Over the Course of Socioeconomic Development: Evidence from Indonesia. Demography, 45 (3), 693-717.

Ministry of Planning and Investment (Mopi). 2013. Lao's National Socio-economic Development Report. (Original was published in Lao)

Ministry of Planning and Investment (MoPI). 2016. Lao's National Socio-economic Development 8th, 2016-2020. (Original was publish in Lao)

Ministry of Education and Sports (MoES). 2015. Annual Report of Education Development Planning. (Original was publish in Lao)

Ministry Of Education and Sports (MoES). 2016. Education Development Planning, 2016-2020.

Nong Administrative Office (NAO). 2015. The Annual Report of Nong District, Savannakhet province, Lao PDR. (Original was publish in Lao)

Nong District Education Office (NDEO). 2015. Brief of Nong education development planning AY 2015-2016. (Original was publish in Lao)

Nong District Education Office (NDEO). 2015. The Annual Statistics 2015. (Original was publish in Lao)

Nong District Education Office (NDEO). 2016. The Annual Statistics 2016. (Original was published in Lao)

Phommanimith, K. 2008. Country Report on basic education Curriculum in Lao PDR: A Look at the Current Content and Reform

Savannakhet Provincial Education Division, 2015. Brief of Education Development Plan of Savannakhet Provincial Education Division AY 2015-2016. (Original was publish in Lao)

United Nations Educational, Scientific and Cultural Organization (Unesco) Bangkok. 2008. Secondary education regional information base: country profile: Lao PDR. Bangkok: UNESCO Bangkok, 2008. Thailand: UNESCO

Yamane, T. 1967. Statistics: An Introductory Analysis. New York: Harper and Row

 ISSN: 3048-5320 (Online)

Thriving in the Digital Era: Adoption of Digital Technology by Small and Medium Enterprises in Northern India

Dr.Vishal Kumar
Associate Professor,
Gopal Narayan Singh University
Sasaram, Bihar

Mr. Rajeev Ranjan
Gopal Narayan Singh University Research Scholar, ICFAI University, Ranchi, Jharkhand

Abstract
The purpose of this study was to investigate the variables influencing SME entrepreneurs' use of digital technologies. Data from 375 samples of SME entrepreneurs in the northern area of India were gathered using questionnaires. The Structural Equation Model (SEM) was used to examine the data. The findings demonstrated that there were three primary elements to the variables influencing the adoption of digital technology by SMEs: the technological context, the context of SMEs, and the environment. One of the main elements influencing how beneficial people think utilizing digital technology is its technological background. The primary element that influences entrepreneurs' acceptance of digital technology and their perception of its usability is the surrounding environment. The study's findings can serve as a roadmap for encouraging and supporting Indian SME owners to embrace digital technology to boost their competitiveness in the market and prepare for the coming era of the digital economy.

Keywords: *Digital technology, Technology adoption, SMEs.*

Introduction

Since digital technology has made life and work more efficient, the economic structure has changed into the digital economy, which offers prospects for expansion and drastically alters corporate procedures, ushering in the fourth industrial revolution. With the advent of digital technology, the idea of doing business has evolved from mass manufacturing for cost reduction to customized production or from creating chances for virtual goods and services in a virtual environment. According to forecasts of the World Economic Forum, the digital economy will account for almost 70% of the world's gross domestic product (GDP) by 2030. This prediction indicates that digital technology will continue to have a significant influence on the direction of the world economy. An economy that utilizes digital technology to boost economic value is known as a "digital economy," which includes producers, consumers, and governments.

According to an EY survey in 2019, 81% of ASEAN entrepreneurs intend to invest in digital technology-related factors, and 80% of the sample is working to ensure that organization personnel are trained in the latest technologies. In contrast, the percentage of entrepreneurs in the region who still invest in fixed assets or traditional technology has dropped to about 75%. Additionally, the World Manufacturing Production statistics shows that the use of digital technology by entrepreneurs contributed to a 2.5% rise in productivity in the manufacturing sector globally in 2023 compared to a 2.3% gain in 2018.

Despite the fact that digital technology may provide businesses a competitive edge, there are still issues and barriers when it comes to using it in SMEs. Twelve issues have been identified by the Office of Small and Medium Enterprises Promotion (OSMEP) as the challenges facing India's SMEs. The impediments to manufacturing technology are one of the main issues or challenges facing SMEs. Productivity, or the efficiency of manufacturing, is directly impacted by this issue.

In order to create cost leadership—which is the use of technology to reduce costs—the government has a policy to support and focus on SMEs using digital technology to modify and apply in business operations to create speed of adjustment and release new products and services to meet customer needs. Examples of this technology-driven cost reduction include solving overstock problems, reducing production errors, shortening customer delivery times, and differentiating products and services through application of technology to the business. The Office of Small and Medium Enterprises Promotion (OSMEP) survey data from 2019 revealed, however, that one of the shortcomings of India's SMEs is that conventional business owners are unaware of the value and use of digital technologies. The current business model might not last in the long run. Therefore, one of the key components of a company's ability to survive in the market is its adoption of digital technology for use in operations. It plays a significant role in giving Indian SME owners a competitive advantage over their rivals in the market, or at the very least, in keeping them competitive. Consequently, it is critical to upgrade SMEs through the use of digital technology, which gives rise to the research question, "What are the factors affecting the adoption of digital technology in SMEs?" with the goal of examining these issues.

Literature Review

In the field of technology and innovation management, the Technology Acceptance Model (TAM) is a commonly used paradigm for technology and innovation that arises, spreads, or is generally accepted and employed in society (Davis, 1989). The variables influencing India's SMEs' adoption of digital technology were examined in this study using the Technology Acceptance Model (TAM) (Nurqamarani, Soegiarto & Nurlaeli, 2021). The study of variables that affect how new goods, innovations, technologies, and so forth are adopted and used is the foundation of the Technology Acceptance Model (TAM).

The term "external variables" describes the impact of several external factors on the perceived utility (PU) and perceived ease of use (PEOU) of innovations, information technology, and other related technologies. If these views are true, it will influence attitudes about adopting technology and ultimately lead to the acceptance of innovations, information technology, or technology (King & He, 2006). The perceived utility and ease of use of breakthroughs in technology, information technology, and other fields are influenced by several external factors. The Technology-Organization-Environment (TOE) paradigm developed by Tornatzky and Fleisher, which outlined the elements of technology adoption or the processes involved in making adoption decisions, was also employed in this study. Technology, organization, and environment are the three primary parts (Tornatzky & Fleisher, 1990; Chong & Olesen, 2017). These three elements are regarded as exogenous variables that impact the perceived utility of technology, information technology, or innovation, as well as the perceived usability of technology, information technology, or innovation that prompts SME entrepreneurs in India to adopt digital technology. A summary of the conceptual framework is provided in Figure 1.

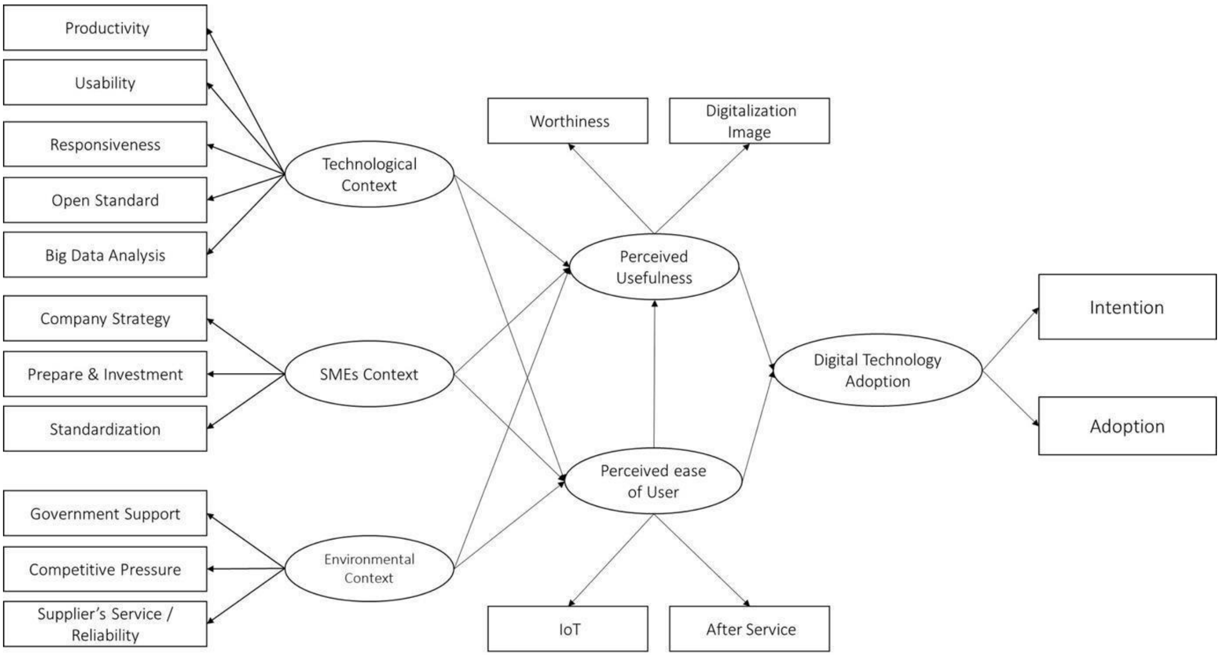


Figure 1: Research Model

Methodology

The study's methodology may be broken down into the following four primary steps:

- On the basis of literature review of two theories were utilized in this investigation comprises the Technology-Organization-Environment concept for research model development and the Technology Adoption Theory Model (TAM).
- After reviewing several relevant papers and speaking with subject-matter experts, the questionnaire was developed and revised. The questionnaire was made up entirely of closed-ended questions. the process of designing research instruments or questionnaires by incorporating elements from the conceptual framework and research modeling procedure.

- C. Data Gathering and Analysis: This research is quantitative in nature. The population was made up of SME owners in India who were chosen at random using a sampling technique. 375 SME entrepreneurs from northern India who took part in the Small Entrepreneur Upgrading Project using Digital Technology in 2024 are included in the demographic. Using Maximum Likelihood, the sample size was established in accordance with Lindeman, Merenda, and Gold's (1980) guidelines. The information gathered from the distribution of the questionnaire was used to assess the study results. In order to have a more comprehensible combination and structural equation modeling (SEM) analysis, variables were grouped and existing variables were increased or decreased using exploratory factor analysis (EFA).
- Conclusion: The study findings were compiled and drawn after the data were examined.

Results and Discussion
A correlation test called exploratory factor analysis (EFA) determines how many groupings of factors that represent latent variables may be formed from observable data. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy, or KMO, was one of the criteria utilized in the study to demonstrate the applicability of the data. The resultant number needs to be at least.5. (2) The Whole Variance Confirmation of the extent to which a component may characterize the data is explained. A value that indicates how variables should be distributed across the composition is the Rotated Component Matrix (3). The resultant value cannot be less than.5.
Every value that was received complied with the given requirements. It may be concluded that the information was usable. Seven components made up the analysis results: 1) Context of technology; 2) Context of company SMEs; 3) Context of the environment; 4) Perception of utility; 5) Perception of ease of use; and 7) Adoption to Use. Every component met the requirements of the Exploratory Factor Analysis (EFA). Table 1 presents the data.

Table 1: Results of EFA analysis

Factor	KMO (>0.5)	Approx. Chi-Square	Total Variance Explained (>65)	df	Sig.
Technological Context	.618	3647.15	73.065	55	.000
SMEs context	.684	2614.640	85.315	28	.000
Environmental Context	.654	4469.147	90.879	28	.000
Perceived Usefulness	.762	923.196	71.547	6	.000
Perceived ease of use	.773	2509.316	81.672	6	.000
Digital Technology Adoption	.780	847.388	69.422	6	.000

The resulting factors were used in the Structural Equation Model (SEM), a statistical analysis type, after the use of the exploratory component analysis. In order to create consistency with the studied model, it was utilized to verify the research hypothesis, demonstrate the relationship in the form of path analysis, and evaluate the relationship between latent variables and observed variables, both directly and indirectly, by using exploratory component analysis to examine the relationship between variables.
The Goodness-of-fit, a model indicator designed to be consistent and relevant to the study's environment, shows the model's appropriateness analysis. It has to have a range of values so that the model fits correctly. The requirements are that the p-value must be.05 (*),.01 (**), and.001 (***), and the CMIN/df must be less than 2 (Ozlem et al., 2017), GFI is larger than.9 (Zhengwei et al., 2017), AGFI must be greater than.9 (Yıldırım et al., 2017), and RMSEA must be less than.05 (Kwon and Shin, 2016). As seen in Table 2, the coherence of the models was evaluated by modifying the statistical values to match between a theoretical model and an empirical model (Tathem et al., 2006).

Table 2: Goodness-of-fit-indices and measure

Measurement indices	Recommended value	Value
CMIN/df	< 2	1.953 (acceptable)
GFI	≥ 0.9	0.921 (acceptable)
AGFI	≥ 0.9	0.964 (acceptable)
RMSEA	< 0.05	0.038 (acceptable)

The model was then examined using the structural equation modeling method to test the model's hypothesis, which was ascertained from the Regression Weights table by taking into account the Standardize Regression Weights of less than 1.00 and the P-Value at the significance level of.001 (***). Table 3 illustrates the link between the variables through the results of the model adjustment using an advanced statistical tool.

Table 3: Results of EFA analysis

Parameter			Standardized	Sig.
PU	<---	Technological Context	.458	***
PEOU	<---	Technological Context	.269	***
PU	<---	SMEs Context	.340	**
PEOU	<---	SMEs Context	.269	***
PU	<---	Environmental Context	.142	***
PEOU	<---	Environmental Context	.355	**
PU	<---	PEOU	.509	***
Digital Technology Adoption	<---	PU	.247	***
Digital Technology Adoption	<---	PEOU	.492	***

Note: *** >.001, ** >0.1, * >.05

An analytical method for examining the causal link between independent and dependent variables is path analysis. The following succinctly describes the link between latent and observable variables: 1) Together, perceived utility and perceived ease of use had an impact on digital technology adoption of 31% (R2 = 30.59), with perceived utility having the greatest coefficient (.492***) and perceived ease of use having the second-highest coefficient (.247***). 2) The combined effects of the technological, SME, and environmental contexts influence the perceived usefulness by 51% (R2 = 51.40). 3) The combined impact of the technological, SME, and environmental contexts on perceived ease of use is 39% (R2 = 39.10). The information is displayed in Figure 3.

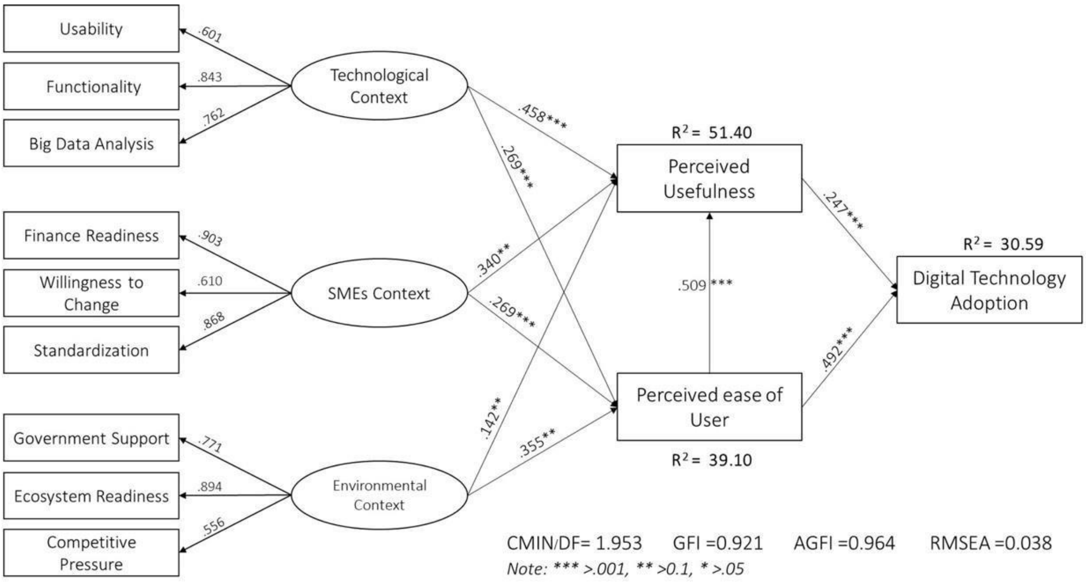


Figure 3: Relationship of Digital Technology in SMES

Conclusion and Recommendation

The purpose of this study was to investigate the variables influencing SME entrepreneurs' use of digital technologies. The statistical analysis's findings demonstrated that, in order to help SMEs recognize the value of utilizing digital technology, government organizations and the private sector involved in the policy of encouraging and supporting SMEs' use of digital technology should concentrate on informing and training SMEs on how to use each type of digital technology that is appropriate for each SMEs. Additionally, in order to raise awareness of the ease of using digital technology by SMEs and prevent them from viewing it as a burden or an obstacle, the government should support both in terms of knowledge and skill development, funding access, and ecosystem development. If both of these are put into practice, it will result in modernizing the existing company with a new business plan that would improve operations and boost efficiency. Along with raising income and productivity for businesses, it may also cut expenditures. One possible place to start when adopting it is with 1) the effectiveness and capabilities of digital technology. It needs to motivate SMEs to acknowledge and appreciate the significance of digital technology, which may efficiently assist in problem-solving, save expenses, and boost productivity and revenue in the corporate world. In order to prevent adding to the burden of entrepreneurs, the government should also assist in giving such training and information to company owners and assist SMEs in selecting digital technology that is appropriate for the kind of SMEs and the size of the enterprise. 2) The public sector should possess the know-how to assist SMEs in their digital transformation by assisting in the analysis of the issues with the current system and offering guidance on the transfer to the new one. 3) Advocate for the complete use of digital technologies.Apart from utilizing digital technology, it is important to impart expertise on data gathering and analysis. Additionally, keeping diverse data in a database for subsequent processing and analysis in the form of big data analysis is necessary for company planning that caters to consumers' and the market's demands.

References

Abrahao, R.S., Moriguch, S.N. & Andrade, D.S. (2016) 'Intention of adoption of mobile payment: An analysis in the light of the Unified Theory of Acceptance and Use of Technology (UTAUT)', Science Direct RAI Revista de Administracao Innovation, vol. 13, pp. 221–230.

Aggorowati, M.A., Iriawan, N., Suhartono & Gautama, H. (2012) 'Restructuring and Expanding Technology Acceptance Model Structural Equation Model and Bayesian Approach', American Journal of Applied Sciences, vol. 9, no. 4, pp. 496–504.

Al-Maroof, R.A.S. & Al-Emran, M. (2018) 'Students' Acceptance of Google Classroom: An Exploratory Study using PLS-SEM Approach', International Journal of Emerging Technologies in Learning (iJET), vol. 13, no. 6, pp. 112–123.

Alshammari, K.A.F. (2018) 'Computer Anxiety of The Digital Technologies Acceptance in Saudi Arabia', International Journal of Heritage, Art and Multimedia, vol. 1, no. 3, pp. 32–50.

Alzubi, M.M., Al-Dubai, M.M. & Farea, M.M. (2018) 'Using the technology acceptance model in understanding citizens' behavioural intention to use m-marketing among Jordanian citizens', Journal of Business and Retail Management Research (JBRMR), vol. 8, no. 5, pp. 37–49.

Amin, M.K., Azhar, A., Amin, A. & Akter, A. (2015) 'Applying the Technology Acceptance Model in examining Bangladeshi consumers' behavioral intention to use Mobile Wallet: PLS-SEM Approach', 18th International Conference on Computer and Information Technology (ICCIT), pp. 94–96.

Asadi, S., Abdullah, R., Safaei, M. & Nazir, S. (2019) 'An Integrated SEM-Neural Network Approach for Predicting Determinants of Adoption of Wearable Healthcare Devices', Mobile Information Systems, vol. 5, no. 1, pp. 4–8.

Bacha, M.P., Čeljob, A. & Zoroja, J. (2016) 'Technology Acceptance Model for Business Intelligence Systems: Preliminary Research', Procedia Computer Science, vol. 100, pp. 995–1001.

Brezavscek, A., Sparl, P. & Znidarsic, A. (2016) 'Factors Influencing the Behavioural Intention to Use Statistical Software: The Perspective of Slovenian Students of Social Sciences', EURASIA Journal of Mathematics, Science and Technology Education, vol. 13, no. 3, pp. 953–986.

Chen, H., Rong, W. & Ma, X. (2017) 'An Extended Technology Acceptance Model for Mobile Social Gaming Service Popularity Analysis', Mobile Information Systems, pp. 4–9.

Chong, J.L. & Olesen, K. (2017) 'A Technology-Organization-Environment Perspective on Eco-effectiveness: A Meta-analysis', Australasian Journal of Information Systems, vol. 21.

Cowan, P. & Earls, J. (2016) 'Using the Technology Acceptance Model to determine Teachers' Attitudes towards the Introduction of iPads in the Classroom', World Conference on Educational Media and Technology, pp. 921–926.

Diamond, L., Busch, M. & Jilch, V. (2018) 'Using Technology Acceptance Models for Product Development: Case Study of a Smart Payment Card', AIT Austrian Institute of Technology, no. 6.

Erdogmus, N. & Esen, M. (2011) 'An Investigation of the Effects of Technology Readiness on Technology Acceptance in e-HRM', Procedia Social and Behavioral Sciences, vol. 24, pp. 487–495.

EY (2019) Redesigning for the digital economy: A study of SMEs in Southeast Asia.

Fajar, M.A. (2017) 'Exploratory Study of SMEs Technology Adoption Readiness Factors', Procedia Computer Science, vol. 124, pp. 329–336.

Farahat, T. (2012) 'Applying the Technology Acceptance Model to Online Learning in Egyptian Universities', Procedia - Social and Behavioral Sciences, vol. 64, pp. 95–104.

Fathema, N., Shannon, D. & Ross, M. (2015) 'Expanding the Technology Acceptance Model (TAM) to Examine Faculty Use of Learning Management Systems (LMSs) in Higher Education Institutions', MERLOT Journal of Online Learning and Teaching, vol. 11, no. 2, pp. 213–218.

Fedorko, I., Bacik, R. & Gavurova, B. (2018) 'Technology Acceptance Model in E-commerce Segment', Management & Marketing, vol. 13, no. 4, pp. 1242–1256.

Govindaraju, R. & Indriany, A. (2007) 'A study on ERP System Acceptance based on Technology Acceptance Model', Bandung Institute of Technology.

Harborth, D. & Papet, S. (2017) 'Exploring the Hype: Investigating Technology Acceptance Factors of Pokémon Go', IEEE International Symposium on Mixed and Augmented Reality (ISMAR), Nantes, France.

Hornbaek, K. & Hertzum, M. (2017) 'A Review of the Experiential Component in HCI', ACM Transactions on Computer-Human Interaction, vol. 24, no. 5, pp. 33–6.

Juwita, J. (2017) 'Analysis of Affecting Factors Technology Acceptance Model in The Application of Knowledge Management for Small Medium Enterprises in Industry Creative', Procedia Computer Science, vol. 116, pp. 500–508.

King, W.R. & He, J. (2006) 'A meta-analysis of the technology acceptance model', Information & Management, vol. 43, no. 6, pp. 740–755.

King, W.R. & He, J. (2006) 'A meta-analysis of the technology acceptance model', Information & Management, vol. 43, no. 6, pp. 740–755.

Khongmalai, O. & Distanont, A. (2018) Research Techniques in Technology and Innovation Management, Thammasat Publisher, India'sland.

Lixandroiu, R.C. (2019) 'A study on academic staff personality and technology acceptance: The case of communication and collaboration applications', Computers & Education, vol. 128, pp. 113–131.

Maican, C.I., Cazan, A. & Lixandroiu, R.C. (2019) 'A study on academic staff personality and technology acceptance: The case of communication and collaboration applications', Computers & Education, vol. 128, pp. 113–131.

Melesse, B. (2018) 'A review on factors affecting adoption of agricultural new technologies in Ethiopia', Journal of Agricultural Science and Food Research, vol. 9, pp. 4–9.

Munoz-Leiva, F., Climent-Climent, S. & Cabanillas, L. (2016) 'Determinants of intention to use mobile banking apps: An extension of the classic TAM model', Spanish Journal of Marketing - ESIC, vol. 21, pp. 25–38.

Mutlu, S. & Efeoglu, I.E. (2013) 'Evaluation of E-mail usage by extended technology acceptance model', International Review of Management and Marketing, vol. 3, no. 3, pp. 112–121.

Nurqamarani, A.S., Soegiarto, E. & Nurlaeli (2021) 'Technology adoption in small-medium enterprises based on Technology Acceptance Model: A critical review', Journal of Information Systems Engineering and Business Intelligence, vol. 7, no. 2, p. 162–172.

San, A.C. & Yee, C.J. (2013) 'The modified Technology Acceptance Model for private clinical physicians: A case study in Malaysia, Penang', International Journal of Academic Research in Business and Social Sciences, February, p. 387.

Schepers, J.J. & Wetzels, M. (2007) 'A meta-analysis of the technology acceptance model: Investigating subjective norm and moderation effects', Information & Management, vol. 44, pp. 90–103.

Scherer, R., Siddiq, S. & Tondeur, J. (2019) 'The technology acceptance model (TAM): A meta-analytic structural equation modeling approach to explaining teachers' adoption of digital technology in education', Computers & Education, vol. 128, pp. 13–35.

Scott, S.D., Plotnikoff, R.C. & Karunamuni, N. (2008) 'Factors influencing the adoption of an innovation: An examination of the uptake of the Canadian Heart Health Kit (HHK)', Implementation Science, vol. 3, no. 41, p. 2008.

Sukarno, M., Meilani, M.L. & Karyanti, Y. (2017) 'Smartphone adoption by the National Population and Family Planning Indonesia', National Population and Family Planning Board (BKKBN) Indonesia, pp. 4–10.

Talukder, M. (2012) 'Factors affecting the adoption of technological innovation by individual employees: An Australian study', Procedia - Social and Behavioural Sciences, vol. 40, pp. 52–57.

Teo, T. & Zhou, M. (2014) 'Explaining the intention to use technology among university students: A structural equation modeling approach', Journal of Computer in Higher Education, vol. 26, pp. 124–142.

The Office of Small and Medium Enterprises Promotion (OSMEP) (2021) Executive Summary White Paper on MSME 2020, Bangkok, Thailand.

Tornatzky, L.G. & Fleischer, M. (1990) The Processes of Technological Innovation, Lexington Books, Lexington, MA.

Wairimu, M.B. & Nyaoga, R.B. (2018) 'The effect of automated information systems on the Kenyan county government's operations', Accounting, vol. 4, p. 105.

Exploring the Dimensions of Creativity and Job Satisfaction: A Correlational Study

Neha Arora
Ph.D Scholar, Arni School of Business Management & Commerce
ARNI University, Kathgarh, Indora, Kangra, Himachal Pradesh, INDIA

Dr. Roopali Sharma
Professor, Amity Institute of Psychology & Allied SciencesAmity University, Sector-125, Noida, Uttar Pradesh, INDIA

Abstract
This investigation explored the association between creativity and job satisfaction within the context of higher education institutions. The researchers analysed data from a sample of 100 employees representing diverse roles, tenure, and demographic characteristics. While prior studies have suggested a positive link between creativity and job satisfaction, empirical evidence in specific settings and with limited sample sizes remains scarce. Participants completed surveys to assess their levels of creativity and job satisfaction, and the data was analysed using statistical techniques.

The results suggest a significant positive correlation ($r = 0.220$, $p < 0.05$) between creativity and job satisfaction, indicating that individuals with greater creative capacities tend to report higher levels of job satisfaction. Furthermore, a statistical analysis revealed a significant difference in job satisfaction between high-creativity and low-creativity groups. These findings support the idea that nurturing creativity in the workplace can contribute to enhanced employee satisfaction. The study emphasizes the importance for organizations to actively promote and recognize creative contributions from their employees, as this can foster a more fulfilling work environment. This research provides valuable insights for human resource management and organizational leaders seeking to optimize workplace conditions and enhance overall employee well-being.

Keywords: *Creativity, Higher Education Institutions, Job Satisfaction, Organizational Psychology, Workplace Environment*

Introduction

The educational system is the most critical institution within a nation, playing an essential role in its advancement. Universities are responsible for generating and fostering knowledge necessary for the development of a modern society. The faculty members represent the most valuable asset within higher education institutions. In this context, key determinants influencing employees include their job satisfaction and mental well-being. A substantial body of research has examined the relationship between employee performance in higher education and their levels of job satisfaction. For example, a study by *Pudjiati et al. (2023)* identified a significant correlation between job satisfaction and performance, underscoring the necessity of promoting a healthy work environment for staff. Additionally, *Badri (2019b)* observed that an imbalance between professional and personal life was linked to deteriorating mental health, reduced job satisfaction, and an increased propensity to contemplate job resignation.

In contrast, *Badri (2019b)* identified that a well-maintained equilibrium between professional responsibilities and personal life is associated with favourable outcomes, including a diminished intention to resign, enhanced mental well-being, and increased job satisfaction. Furthermore, *Slavić and Avakumović (2018)* underscored in their research that the effectiveness of higher education is contingent upon the job satisfaction of educators, as this satisfaction significantly influences their research and teaching endeavours, ultimately affecting the success of students, educational institutions, and society at large. They asserted that job satisfaction is essential for organizational effectiveness, contributing to higher employee retention rates, improved productivity, reduced absenteeism, and enhanced mental and physical health.

Spector (1997) characterizes job satisfaction as the extent to which individuals experience enjoyment or dissatisfaction in their work. In contrast, *Brief (1998)* conceptualizes it as an individual's emotional attitudes towards their employment. *Buitendach and Witte (2005)* assert that job satisfaction is derived from individuals' evaluations of their work in relation to their specific needs and expectations. *Weiss et al. (as cited in Eslami & Gharakhani, 2012)* propose that job satisfaction can be classified into three categories: total, extrinsic, and intrinsic. According to *Buitendach and Witte (2005),* intrinsic job satisfaction refers to the positive emotions that arise from job-related factors such as autonomy and task variety, indicating that an individual's intrinsic satisfaction is rooted in the fundamental characteristics of the work itself (*Eslami & Gharakhani, 2012*). In contrast, extrinsic job satisfaction is influenced by external factors associated with the job, including salary, working conditions, and interpersonal relationships with colleagues (*Buitendach and Witte, 2005*).

Job satisfaction is conceptualized as an individual's sense of fulfilment and contentment within their specific occupational role, as well as the extent to which their personal needs are met (*Molero Jurado et al., 2019*). This construct is inherently subjective, encompassing an individual's emotional responses to their job and their overall satisfaction with the tasks they undertake. Positive emotional states associated with one's work are integral to job satisfaction, which has been found to correlate closely with creativity among educators (*Raju, 2017*). *Kashirina et al. (2020*) identified several factors that can adversely affect job satisfaction, including insufficient supervision, inadequate compensation, unfavorable working conditions, and strained interpersonal relationships with colleagues, all of which may hinder teachers' creative capacities. Consequently, it is imperative to investigate the relationship between job satisfaction and teachers' creativity. Various elements influence job satisfaction, such as the work environment, the fulfilment of job expectations, and emotional reactions to specific situations. The level of job satisfaction reflects individuals' perceptions of their work, with satisfaction increasing when individuals feel fulfilled and decreasing in instances of dissatisfaction. This study seeks to analyze the influence of job satisfaction on creativity, with a particular focus on dimensions such as originality, fluency, and flexibility, in relation to factors including teaching supervision, salary, working conditions, personality traits, and collegial relationships.

Individuals who derive their contentment from external factors, such as material or financial rewards associated with their employment, are described as extrinsically satisfied. Job satisfaction is characterized by a sense of fulfilment that individuals experience in their work, often accompanied by opportunities for advancement and incentives. The efficacy of a university's vision and mission is significantly influenced by its academic personnel. Job satisfaction is a vital component across various sectors, including educational institutions, as it affects employees' commitment to the organization (*Ayalew et al., 2019; Breaugh et al., 2018*). Specifically, satisfied employees are more inclined to maintain their dedication to both their roles and the institution. Therefore, the level of job satisfaction among educators warrants careful consideration. The effectiveness of academic staff members as instructors and researchers influences students' learning and, as a result, plays a significant role in determining the quality of student satisfaction and the contribution these staff members make to society's higher education institutions. As a result, the motivation and contentment of the academic personnel become crucial. Due to its correlation with a number of causative elements, including financial, social, cultural, personal, and environmental aspects, job satisfaction is a complicated topic. An important consideration for determining an employee's the level of job satisfaction is the type of job satisfaction. The investigation conducted by *Moloantoa and Dorasamy (2017)* highlights the critical need to identify the determinants that affect job satisfaction among academic personnel in higher education institutions. Their research indicates that several elements, including salary, insufficient financial resources, dissatisfaction with benefits and allowances, lack of essential equipment, and ineffective institutional management, play a significant role in shaping job satisfaction. *Teymournejad (2017)* defines creativity as the process through which individuals develop innovative ideas or methodologies. Furthermore, a study by *Chaturvedi and Raavi (2019)* aimed at evaluating job satisfaction across various industries found that, in addition to working conditions, psychological, motivational, and reward factors also significantly impact job satisfaction. A strong and positive university framework directly contributes to enhanced job satisfaction among academic staff. Moreover, fostering a healthy campus environment not only improves the learning atmosphere and increases university productivity but also elevates job satisfaction among academic personnel *(Bentley et al., 2013). Khalid et al. (2012)* assert that universities serve as the primary repositories of knowledge, where future professionals receive specialized training to become multidisciplinary experts. Additionally, *Machado-Taylor et al. (2010)* emphasize that the motivation and job satisfaction of academic staff are crucial for enhancing the quality of their institutions and the educational experiences of their students, underscoring the essential role of academic personnel in the success of a university. Over the past decade, politicians, business owners, workers, educators, professors, students, and others have all adopted creativity as a mantra. It is believed that creativity can solve a variety of issues, including social, economic, and educational ones. Especially, creativity has grown in importance since it "becomes a force of great value when it is applied to causes that benefit humankind and the world at large (*Fields, Z., et al. 2013)".* The term "creativity" is derived from the Latin word "creare," which translates to "to produce." According to the Latin poet Horace, poets and painters possess the capacity to generate original works. The contemporary understanding of creativity is largely based on Graham Wallas' theory, which he articulated in his 1926 publication, "The Art of Thought." Creativity is defined as the process of generating something novel and distinct from existing knowledge, encompassing the development of innovative solutions to problems and the exploration of the unknown (*Ozimec, S. et al., 1987).* In response to significant economic, cultural, and other macro-environmental challenges, higher education institutions have increasingly prioritized the cultivation of creativity. Employee creativity has been said to be the primary driver of innovation in all businesses (*Amabile, Conti, Coon & Herron, 1996; Cummings & Oldham, 1997).* The "creative inputs" that employees supply the 5JS and Creativity in Relation to TP and the Crisis company demonstrate the importance of their creative efforts, as highlighted by *Cummings and Oldham (1997).* Considering the significance of creativity for organisational life, a large body of research has examined the connection between personality and creativity, proposing that individuals may or may not possess "creative talents" (*Cummings & Oldham, 1997; Woodman et al, 1993*). These challenges have caused universities to shift from being traditional research institutions, or "ivory towers," to becoming entrepreneurial institutions that not only became autonomous in their decision-making but also created and implemented new research and transfer relationships within their respective regions. According to physicist David Bohm, creativity depends on perception and the capacity to identify something novel. It also requires a mindset that is "attentive, alert, aware, and sensitive" and does not impose preconceived notions. This is highly comparable to the condition that educationalist Mezirow claims is required for transformational learning to occur, wherein an individual may need to give up or alter their values and beliefs to make room for their new experience and to give it new meaning. *Rezzan, Uçar. (2022)* study show that educators are very creative people and they expressed that they were satisfied with their work. Additionally, research indicates that teachers' job satisfaction can be statistically predicted based on their levels of expertise, perceptions of motivation, and creative thinking abilities. The findings of the study conducted by *Apriyani et al. (2019)* revealed a significant positive correlation ($r = 0.217$) and a direct linear regression equation (э = 89.33 + 0.32 X1) linking teacher creativity to the visionary leadership of principals. It was determined that a 16.50% enhancement in teacher creativity is associated with the visionary leadership exhibited by principals. Various factors influence the creativity of employees in higher education settings. Notably, knowledge-oriented leadership serves as a moderating variable in the relationship between strategic thinking and employee creativity, with evidence suggesting that strategic thinking promotes and enhances employee creativity.

Creativity and Job Satisfaction have a complicated and multidimensional relationship. On the other hand, research indicates that there may be a positive association between the two, meaning that enhanced job satisfaction and increased employee creativity are positively correlated with one another. In research conducted by *Galina, Z., Efimova*, and colleagues in 2023, it was found that individuals who expressed high levels of contentment with the nature of their job, its fairness, and the comfort it provided tended to exhibit the highest overall job satisfaction. Furthermore, the study identified several factors that contributed to enhanced work performance, including stability and reliability, social connections and opportunities for career growth, as well as managerial support. A study by *Haleem and Rahman (2023),* diversity in the workforce including differences in age, gender, and educational background—has a big impact on innovation. *Thomas et al. (2020)* characterize satisfaction as a result of effective effort, while *Emin Turkoglu et al. (2017)* defines job satisfaction as an individual's attitude towards the evaluations of coworkers and the overall workplace environment. *Nurhattati et al. (2022)* identified a significant relationship between job satisfaction and the creativity exhibited by teachers in the classroom, with supervision emerging as the most influential factor, followed by compensation, work environment, personality traits, and relationships with colleagues. In a similar vein, *Nurtjahjani and Puspita (2022)* argued that increased job satisfaction among university professors correlates with enhanced performance in higher education, identifying key predictors of lecturer satisfaction, including the nature of the work, compensation, opportunities for advancement, supervision, and coworker relationships. *Norouzpour and Pourmohammadi (2019)* observed that various dimensions of job satisfaction, such as interactions with coworkers and the workplace atmosphere, significantly influence an individual's willingness to engage in meaningful tasks, thereby positively affecting work output. *Yilmaz (2018)* posited that faculty members who experience job satisfaction tend to exhibit improved job performance due to their increased focus on work-related responsibilities, which in turn fosters creativity and positively impacts student development. Additionally, *Norouzpour and Pourmohammadi (2019*) contended that job satisfaction influences both the professional and personal lives of teachers, with satisfied faculty members demonstrating greater innovation in the classroom. This perspective is supported by *Ripki et al. (2019),* who assert that job satisfaction is associated with heightened creativity and superior work performance. *Huynh Thi (2021)* emphasized the importance of promoting job satisfaction and creating a conducive work environment to enhance creativity, underscoring intrinsic factors such as recognition, awards, and job responsibilities as key drivers of creativity within the context of job satisfaction.

According to *Astuti et al. (2020),* job satisfaction is regarded as a key indicator of performance effectiveness. When workers are happy, the organisation will achieve achievements that are commensurate with future salary rises. However, dissatisfaction among employees can lead to a high rate of absenteeism, a high frequency of

workplace accidents, and employee turnover. The manifestation of employee happiness in this environment will positively influence employees' productivity, vitality, and creative output.
In her research paper, *Hulya Gunduz (2016)* underscores the significant influence of job satisfaction on various attributes, particularly creativity. Gunduz posits that individuals who experience dissatisfaction within their work environments are likely to face challenges in expressing their creative potential. However, it is important to note that Gunduz's investigation does not specifically address the relationship between job satisfaction and teacher creativity, leaving this area unexamined in the current body of research. Furthermore, the notion of creativity, as defined by *Ripki et al. (2019),* transcends the mere generation of novel ideas. It encompasses a broader framework that seeks to make a positive contribution to the ethical standards upheld by individuals, communities, or organizations. *Ripki et al. (2019)* highlight the complex nature of creativity, which includes the capacity to produce original concepts while also understanding the various perspectives that inform existing ideas.
Furthermore, creativity is characterized by abstract thinking, imagination, problem synthesis, pattern recognition, and empathy for others. These traits collectively define the creative mindset, indicating a capacity to navigate complex situations and generate innovative solutions. Notably, creativity thrives in environments where individuals consistently engage in learning and adapt their responses to various contexts, fostering the emergence of novel ideas and approaches.
Kim (2019) investigated the connections between job identity, energy level, self-efficacy, and creativity among employees in Korea's hotel sector and suggested that in order to improve the hotel's credibility and reputation in the long run, creative roles played by its staff should be encouraged. *Islam and Monzur (2018)* studied the factors that impacts and can be improved upon in terms of job satisfaction and found that concern for and interest in employees were important factors in determining job satisfaction. Fairness, care for working conditions, and ability enhancement were also comprised. At this point, job satisfaction has the potential to stimulate creativity in workers *(Kumar, 2013*).
Although the relationship between creativity and job satisfaction among employees in higher education institutions has been explored in the existing literature, there remain several research gaps that suggest a necessity for further investigation. A review of the current body of work has identified the following gap:

- There is a lack of comprehensive research focusing specifically on the unique context of higher education institutions. Existing studies often generalize findings from other sectors, neglecting the distinct characteristics and dynamics prevalent in academic settings.
- Most studies tend to lump together different categories of employees within higher education institutions, such as faculty members and administrative staff. More research is needed to understand how creativity and job satisfaction vary among these distinct roles and whether factors influencing them differ significantly.
- Notable research gaps exist, particularly concerning gender-specific investigations within these institutions. Current studies often overlook or inadequately address the nuanced differences in how males and females experience job satisfaction and express creativity within the context of higher education. Therefore, there is a clear necessity for additional research.
- A gap underscores the necessity for further investigation to better understand the dynamics of creativity and job satisfaction among employees within Indian higher educational institutions.

Addressing these research gaps may yield a more comprehensive understanding of the interplay between creativity and job satisfaction among employees within higher education institutions. This, in turn, could facilitate the formulation of evidence-based strategies aimed at improving organizational performance and enhancing employee well-being.

Rational of the Study:

Upon conducting a thorough examination of the relevant literature pertaining to the variables, it has come to our attention that a significant gap exists. To address this gap, the present research endeavours to investigate the relationship and gender difference on the level of Creativity and Job Satisfaction among employees in the Higher Education Institutions. It is important to investigate and comprehend the relationship between creativity and job satisfaction in higher education can help create more encouraging and rewarding work cultures, which will eventually benefit staff members as well as the institutions themselves.

Methodology

Aim:

 ISSN: 3048-5320 (Online)

The present study aims to explore the link between Creativity and Job Satisfaction among Employees of Higher Education Institutions.

Objectives:

- To study the relationship between Creativity and Job Satisfaction among Employees of Higher Education Institutions.
- To explore the difference on the level of Creativity and Job Satisfaction among Male and Female Employees of Higher Education Institutions.

Hypothesis:

- There will be a significant relationship between Creativity and Job Satisfaction Among Employees of Higher Education Institutions.
- There will be significant difference on the level of Creativity and Job Satisfaction among Male and Female Employees of Higher Education Institutions.

Sample:

The sample was collected from 100 Employees (Male & Female) working in Higher Education Institutions of Delhi/NCR Region within the age range between 25-35 years. Demographic data, including variables such as age, gender, occupation, qualification, domicile, area of residence, and contact details, were also collected. The purposive sampling was used by the researcher to gather the information from the participants.

Tools:

The standardised tool developed by Kaufman Domain Of Creativity Scale (KDOCS) was utilized to gather the information from the participants on the context of creativity which has 50 Items and Job satisfaction survey (36 Items) developed by Paul E. Spector was also used to gather the information.
In assessing the reliability of tools commonly employed in research studies, James C. Kaufman (2012) yielded a reliability coefficient of 0.97, indicating a high level of consistency and stability in measuring creativity. This finding underscores the utility and robustness of the Creativity tool as a reliable instrument for assessing creative traits and behaviors in research contexts. In a separate investigation, Paul E. Spector (1985) evaluated the reliability of the Job Satisfaction Survey, a widely used instrument for gauging individuals' satisfaction levels in their work environments and reported a reliability coefficient of 0.91 for the Job Satisfaction Survey, indicating a high degree of internal consistency and reliability in measuring job satisfaction among respondents. These reliability coefficients suggest that both the Creativity measure and the Job Satisfaction Survey are dependable tools for researchers seeking to assess and analyze creativity levels and job satisfaction within various populations and settings.

Procedure:

- To fulfil the objectives of the present study, a standardized questionnaire was given to the 100 employees from Higher Education Institutions of Delhi/ NCR Region.
- The participants were briefed on the purpose of the study, and informed consent was obtained, stating that participation was voluntary and that they could withdraw from the study at any time.
- Demographic information such as age, gender, occupation, qualification, domicile, area of residence, and contact information were also gathered. They were encouraged to participate and respond honestly to questions.

Results and Discussion:

The descriptive analysis offers quantitative data pertaining to the measurement of the construct under investigation. An independent t-test was conducted to assess the differences between gender groups regarding the level of the construct and the relationships among them. The calculations were performed using SPSS-27. The subsequent sections will present the analysis and interpretation of the findings.

Table 1: *Difference on the level of Creativity and Job Satisfaction among Male and Female Employees of Higher Education Institutions*

Variables	Gender	N	Mean	SD	t-value	p-value	Result

Job Satisfaction	Male	50	161.72	33.100	-1.600	0.001	Sig.
	Female	50	172.58	34.773			
Creativity	Male	50	167.88	29.417	-0.469	0.185	Insig.
	Female	50	170.84	33.505			

Table 2 : *Relationship between Creativity and Job Satisfaction among Employees of Higher Education Institutions*

Variable	N	Job Satisfaction	Creativity
Job Satisfaction	100	1	.220*
Creativity	100	.220*	1

Note: Correlation is significant at 0.05 level (2-Tailed)

The current study sought to investigate the relationship between creativity and job satisfaction among employees within higher education institutions (HEIs). The results indicated a significant positive correlation (r = 0.220) between these two variables, suggesting that employees exhibiting higher levels of creativity are more likely to report increased job satisfaction. Additionally, a notable difference in job satisfaction was observed between male and female employees; however, no significant differences were found in creativity levels across genders. These findings are consistent with prior research that posits a positive work environment that nurtures creativity can enhance employee well-being and satisfaction. Furthermore, the influence of job satisfaction on various factors, including personality traits, interpersonal relationships with colleagues, and elements of the work environment, has been shown to elevate employees' creativity levels. The highest degrees of creativity are often associated with employees' expertise in their respective fields. Overall, employee satisfaction appears to have a beneficial effect on creativity (Kusumajati, D. A., 2018).

The strong positive correlation observed substantiates the hypothesis that creativity holds a significant influence on job satisfaction within Higher Education Institutions. This finding suggests that organizations prioritizing the development of a creative environment and actively promoting innovative thinking among their employees are more likely to enhance overall job satisfaction among their workforce. Several underlying mechanisms may elucidate this relationship. Engaging in creative work can afford employees a profound sense of autonomy, engagement, and purpose, thereby satisfying their intrinsic needs and resulting in increased job satisfaction. To further enhance the quality of teaching, learning, research, and the overall student experience, it is imperative for colleges and universities to prioritize the establishment of a diverse, innovative, and creative workforce. Furthermore, organizations that acknowledge, appreciate, and actively cultivate employee creativity are likely to nurture a more positive, supportive, and stimulating work environment, which may further augment job satisfaction and overall organizational effectiveness.

While the research provides valuable insights, limitations need to be acknowledged. The cross-sectional design restricts causal inferences. Examining changes in creativity and job satisfaction over time using longitudinal designs could strengthen the understanding of their dynamic relationship. Additionally, exploring specific institutional policies and practices promoting creativity alongside job satisfaction could offer actionable recommendations for HEIs.

Conclusion

This research paper provides comprehensive empirical evidence that substantiates a positive association between creativity and job satisfaction within Higher Education Institutions. The findings clearly indicate that individuals exhibiting higher levels of creative abilities and outputs tend to experience greater job fulfillment and a heightened sense of purpose within their roles. By carefully examining this intricate relationship within a specific organizational context and sample size, this insightful study addresses a notable gap in the existing literature, thereby contributing valuable and impactful insights to the broader knowledge base in the fields of organizational psychology and management. The profound implications of these research findings underscore the vital significance for organizations, particularly those within the educational sector, to actively foster, cultivate, and robustly recognize the creative contributions and innovative ideas of their employees. Doing so can serve as a powerful lever to enhance overall employee satisfaction, well-being, and engagement, thereby optimizing workplace conditions and cultivating a more gratifying, rewarding, and inspiring work environment for all. This research offers invaluable practical implications and recommendations for human resource management professionals and organizational leaders who are seeking to strategically leverage creativity as a means of driving enhanced individual and organizational performance.

Implications of the research:

The findings underscore the crucial role of cultivating creativity within higher education institutions as a potential strategy to bolster employee well-being and satisfaction. This approach may encompass the following measures:

- **Diversity:** is a key element in fostering a thriving and dynamic work environment. By encouraging diverse and flexible work arrangements, organizations can tap into a wider range of perspectives and experiences, promoting collaboration and knowledge sharing among employees. Furthermore, providing opportunities for experimentation and innovation can cultivate a culture of creativity and adaptability, enabling the organization to stay ahead of the curve in an ever-changing landscape.
- **Creativity:** Recognizing and rewarding creative contributions effectively, through merit-based promotion, performance bonuses, or public acknowledgment, to motivate employees and signal that creativity and innovation are highly valued within the organization.
- **Positive Environment:** Leaders demonstrating genuine openness to new ideas and a willingness to listen to and consider suggestions from all levels of the organization. Providing adequate resources, both financial and logistical, to support creative projects and initiatives. Fostering a culture of trust, open communication, and psychological safety, where employees feel empowered to take calculated risks and explore innovative solutions without fear of repercussions.

Scope for Future Research:

The present study opens doors for further investigation. Future research could delve deeper into:

- Investigating how institutional policies and practices support or hinder employees' ability to balance work demands with personal life can shed light on factors contributing to overall job satisfaction.
- Identifying variables that explain the relationship between creativity and job satisfaction, such as intrinsic motivation, autonomy, and organizational support.
- Exploring how different aspects of creativity (e.g., originality, fluency, flexibility) relate to job satisfaction in different organizational contexts.
- Examining the dynamic relationship between creativity and job satisfaction over time and across career stages.

By exploring these intricacies further, subsequent research has the potential to provide more thorough insights and actionable recommendations aimed at improving employee creativity and job satisfaction within higher education institutions (HEIs).

References:

Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, 39(5), 1154-1184.

Apriyani, P., Sutisna, E., & Suharyati, H. (2019). Empowerment Visionary Leadership And Job Satisfaction To Improve Teacher Creativity. JHSS (JOURNAL OF HUMANITIES AND SOCIAL STUDIES), 3(2), 90–94. doi:10.33751/jhss.v3i2.1463

Astuti, R. J., Maryati, T., & Harsono, M. (2020b). The effect of workplace spirituality on workplace deviant behavior and employee performance: The role of job satisfaction. *The Journal of Asian Finance, Economics and Business*, 7(12), 1017–1026. doi:10.13106/jafeb.2020.vol7.no12.1017

Ayalew, F., Kibwana, S., Shawula, S., Misganaw, E., Abosse, Z., Van Roosmalen, J., & Mariam, D. W. (2019). Understanding job satisfaction and motivation among nurses in public health facilities of Ethiopia: A cross-sectional study. *BMC nursing*, 18(1), 1–13. Doi: 10.1186/s12912-019-0373-8

Badri, S. K. Z. (2019c). Affective well-being in the higher education sector: connecting work-life balance with mental health, job satisfaction and turnover intention issues inside the academia setting. *International Journal of Happiness and Development*, 5(3), 225. doi:10.1504/ijhd.2019.10025012

Bentley, P. J., Coates, H., Dobson, I. R., Goedegebuure, L., & Meek, V. L. (2013). Factors associated with job satisfaction amongst Australian university academics and future workforce implications. *Job Satisfaction Around The Academic World*, 29-53.

Breaugh, J., Ritz, A., & Alfes, K. (2017). Work motivation and public service motivation: disentangling varieties of motivation and job satisfaction. *Public Management Review*, 20(10), 1423–1443. doi:10.1080/14719037.2017.1400580

Brief, A. P. (1998). *Attitudes in and around organizations.* Thousand Oaks, CA: *Sage.*

Buitendach, J. H., & De Witte, H. (2005). Job insecurity, extrinsic and intrinsic job satisfaction and affective organisational commitment of maintenance workers in a parastatal. *South African Journal of Business Management*, 36(2), 27-37.

Chaturvedi, D. M., & Raavi, S. (2019). A Study on Employee Job Satisfaction in Different Sectors. *International Journal of Scientific Engineering and Research*, 7(1), 105–108.

Del Mar Molero Jurado, M., Del Carmen Pérez Fuentes, M., Atria, L. F., Ruíz, N. F. O., & Linares, J. J. G. (2019b). Burnout, perceived efficacy, and job satisfaction: Perception of the educational context in high school teachers. *BioMed Research International*, 2019, 1–10. doi:10.1155/2019/1021408

Eslami, J., & Gharakhani, D. (2012). Organizational commitment and job satisfaction. *ARPN Journal of Science and Technology*, 2(2), 85-91.

Fields, Z., & Bisschoff, C. A. (2013). A theoretical model to measure creativity at a university. *Journal of Social Sciences*, *34*(1), 47-59.

Ефимова, Г., & Латышев, А. (2023). Job Satisfaction among Employees of a Higher Educational Institution. *Вопросы образования/Educational Studies Moscow*, (1), 72-108. doi:10.17323/1814-9545-2023-1-72-108

Gaspar, D., & Mabic, M. (2015). Creativity in Higher Education. *Universal Journal of Educational Research*, *3*(9), 598-605.doi: 10.13189/ujer.2015.030903

Haleem, F., & Rahman, K. U. (2023b). Improving Creativity through Workforce Diversity: A Case of Higher Education Institutions of Khyber Pakhtunkhwa. *Journal of Business & Tourism*, 8(02), 38–52. doi:10.34260/jbt.v8i02.247

Islam, R., & Hossain, M. (2018). Job satisfaction of academic staff: an empirical research study on selected private educational institute at Dhaka city corporation. *Global Journal of Management and Business Research: Administration and Management*, *18*(3), 8-15.

Kashirina, M., Podolyan, E., & Kurilova, A. (2020b). Job satisfaction as an indicator of effective motivational climate in the organization. *Advances in Economics, Business and Management Research.* doi:10.2991/aebmr.k.200312.161

Kusumajati, Dian. (2018). The Influence of Employee Satisfaction on Employees' Creativity: A Case Study at Higher Education. 16-22 10.5220/0009999200160022.

Khalid, S., Zohaib Irshad, M., & Mahmood, B. (2011). Job Satisfaction among Academic Staff: A Comparative Analysis between Public and Private Sector Universities of Punjab, Pakistan. International Journal of Business and Management, 7(1), 126-132. doi: 10.5539/ijbm.v7n1p126

Kim, J. (2019). The impact of Creative Role Identity and Creative Self-Efficacy on employee creativity in the hotel business. *The Journal of Asian Finance, Economics and Business*, 6(2), 123–133. doi: 10.13106/jafeb.2019.vol6.no2.123

Kumari, L. (2013). Factors influencing job satisfaction of college‟ s teachers in Doaba Region of Punjab, India. *International Journal of Research in Economics and Social Sciences,* 3(2), 1-9

Machado-Taylor, M. L., Meir Soars, V. & Gouveia, O. (2010): The role of job motivation among academic staff university. *Global Business and Economics Anthology,* 2(2), 242-246.

Nurhattati, N., Ripki, A. J. H., Yusuf, C. F., Aulia, R. N., & Rahmawati, D. (2022b). Job satisfaction as a strategy for increasing teachers' creativity in teaching. *Cypriot Journal of Educational Sciences*, 17(10), 3874–3882. doi: 10.18844/cjes.v17i10.7506

MAHDI, D. S., AHMED, M. A., & RASHEED, F. H. (2021). The role of job satisfaction in developing administrative performance and creativity: An empirical study in Iraq. *The Journal of Asian Finance, Economics and Business*, 8(6), 465-473.

Moloantoa, M. E., & Dorasamy, N. (2017b). Job satisfaction among academic employees in institutions of higher learning. *Problems and Perspectives in Management*, 15(3), 193–200. doi: 10.21511/ppm.15(3-1).2017.03

Norouzpour, F., & Pourmohammadi, M. (2019b). THE EFFECT OF JOB SATISFACTION ON TEACHERS' CREATIVITY IN USING SUPPLEMENTARY EQUIPMENT IN LEARNING ENGLISH IN IRANIAN ENGLISH INSTITUTES. *Zenodo (CERN European Organization for Nuclear Research).* doi:10.5281/zenodo.3348349

Nurtjahjani, F., & Puspita, A. F. (2022b). Job satisfaction in Higher Education (Study at universities in Indonesia). Advances in Social Science, Education and Humanities Research. doi: 10.2991/assehr.k.220301.072

Oldham, G. R., & Cummings, A. (1997). Enhancing creativity: Managing work for the high potential employee. *California Management Review,* 40(1), 22-38.

Orţan, F., Kiss, J., & Simuţ, R. (2021b). Self-Efficacy, Job Satisfaction and Teacher Well-Being in the K-12 educational system. *International Journal of Environmental Research and Public Health*, 18(23), 12763. doi:10.3390/ijerph182312763

Ozimec, S., & Ozimec, S. (1987). *Odgoj kreativnosti: Kako prepoznati i poticati dječju kreativnost. Općinski savez društva"* Naša djeca".

Pudjiati, P., Za, S., & AS, D. L. (2023c). Job Satisfaction and Psychological Well-Being as employee performance factors in educational institutions. *IJEBD (International Journal of Entrepreneurship and Business Development*), 6(2), 354–359. doi: 10.29138/ijebd.v6i2.2165

Raju, T. J. M. S. (2017). Relationship between teacher creativity and job Satisfaction. International Education & Research Journal, 3(6), 176-178.

Slavić, A., & Avakumović, J. (2018b). JOB SATISFACTION OF EMPLOYEES IN THE HIGHER EDUCATION. *Recent Advances in IT, Tourism, Economics, Management and Agriculture.* doi:10.31410/itema.2018.914

Stankovska, G., Angelkoska, S., Osmani, F., & Grncarovska, S. P. (2017). Job Motivation and Job Satisfaction among Academic Staff in Higher Education. *Bulgarian Comparative Education Society*.

Spector, P. E. (1997) Job satisfaction: application, assessment, cause, and consequences. (1997). *Choice Reviews Online,* 35(01), 35–0383. doi: 10.5860/choice.35-0383

 ISSN: 3048-5320 (Online)

Sree, R. N. B., & Satyavathi, R. (2017). Employee Job Satisfaction. *International Journal of Engineering and Management Research*, *7*(5), 85–94.

Teymournejad, K., & Elghaei, R. (2017). Effect of Transformational Leadership on the Creativity of Employees: An Empirical Investigation. *Engineering, Technology & Applied Science Research*, *7*, 1413–1419.

Thomas, L., Tuytens, M., Devos, G., Kelchtermans, G., & Vanderlinde, R. (2018b). Transformational school leadership as a key factor for teachers' job attitudes during their first year in the profession. *Educational Management Administration & Leadership,* 48(1), 106–132. doi: 10.1177/1741143218781064

Türkoğlu, M. E., Cansoy, R., & Parlar, H. (2017b). Examining Relationship between Teachers' Self-efficacy and Job Satisfaction. *Universal Journal of Educational Research*, 5(5), 765–772. doi:10.13189/ujer.2017.050509

Uçar, R. (2022). The Relationship Between Secondary School Teachers' Creativity and Job Satisfaction. *International Journal of Progressive Education*, *18*(4), 31-42.

Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, 18(2), 293-321.

ISSN: 3048-5320 (Online)

Assessment of Workplace Safety and Harassment Experiences Among Female Nurses&ASHA Workers in Healthcare Centers in Gadhinglaj Taluka : A Survey

Dr. Tabassum Yakub Patel
D.K.Shinde College of Education,Gadhinglaj,
Maharashtra, India

Abstract

This study aims to assess the workplace safety and harassment experiences of female nurses and ASHA (Accredited Social Health Activists) workers in healthcare centersacross Western Maharashtra. The healthcare sector, particularly in rural and semi-urban areas,faces unique challenges in ensuring a safe and respectful work environment, especially for female healthcare workers.

A survey was conducted with a sample of nurses and ASHA workers from varioushealthcare centers in the region. Data were collected using a structured questionnaire that covered aspects of workplace safety, incidents of verbal and physical harassment, support systems available, and the workers' perceptions of their work environment.

The results indicate that a significant percentage of respondents reported experiencing verbal harassment, while concerns about physical safety were common among ASHA workersoperating in remote areas.

Keywords: *ASHA workers, Female nurses, Harassment, Healthcare, Maharashtra.*

Introduction

"Workplace safety is a critical concern in healthcare settings, where professionals oftenencounter various stressors that can impact their well-being. Female nurses, who comprise a significant portion of the healthcare workforce, are particularly vulnerable to issues of harassment and unsafe working conditions. In Western Maharashtra, a region marked by rapidhealthcare expansion, understanding the experiences of female nurses regarding workplace safety and harassment is vital. Addressing these issues not only protects healthcare workers butalso enhances the quality of patient care. Previous studies have documented high rates of harassment and safety concerns in healthcare settings globally [1-2]; however, there is limitedresearch focusing specifically on female nurses in the Indian context, particularly in Western Maharashtra. This study aims to assess the prevalence and nature of workplace safety concernsand harassment experiences among female nurses in Western Maharashtra, focusing on key factors such as the types of harassment experienced and demographic influences. By sheddinglight on these critical issues, this research seeks to contribute to the development of effective policies and interventions to improve workplace safety for female nurses in healthcare settings."

Literature Review

Ketankumar patil et al., (2024)

The objective of this study was to assess the resilience of primary healthcare workers (HCWs)by identifying the factors contributing to their resilience following the coronavirus disease 2019 (COVID-19) pandemic. The study followed a cross-sectional design and was conductedin selected municipal hospitals. A total of 245 HCWs, including nurses and paramedics from Pune Municipal Corporation (PMC) hospitals in Pune City, participated in the study. To evaluate resilience, the Connor-Davidson Resilience Scale was utilized. The findings revealed that the mean scores for key resilience factors were as follows: hardiness scored 20.15 (±3.87),optimism 21.22 (±3.39), resourcefulness 17.24 (±2.76), and purpose 16.40 (±2.17). These scores reflect the participants' ability to adapt and recover from challenging situations, indicating varying levels of resilience across different attributes. Additionally, it was found that60% of the participants experienced mental health issues related to their routine workloads. Commonly reported concerns included irritation, anger, frustration, tension, worry, fatigue, work-related stress, sadness, and anxiety. To address these challenges, participants suggested several improvements, such as increasing human resources, better management, skilled staff recruitment, enhanced facilities and funding, and fostering cooperation among staff members.

Minikumary C et al., (2023)

This study aimed to examine the occupational safety and health conditions among healthcare workers at a tertiary care hospital in South India. The research followed a cross-sectional descriptive design, involving 120 healthcare workers who were assessed using a pre-tested questionnaire. In addition to the questionnaire and interviews, the study utilized inspection rounds and a review of the hospital's incident register, which contained 32 case reports, as secondary data sources. The gathered data was analyzed using simple statistical methods. Therisk assessment revealed several key findings related to physical hazards. Among the 120 participants, 21% reported musculoskeletal disorders, followed by 13% who experienced burnsand 10% who suffered from strain due to uncomfortable postures. In terms of chemical hazards,8% were exposed to dust, 7% to chemical inhalation, and 6% to sterilization gases. Biologicalhazards were also prevalent, with 12% of the workers reporting needle stick injuries, 11% experiencing splash incidents, and 5% encountering sharp injuries. Notably, equipment-related hazards were more commonly reported among nurses. In the context of psychosocial hazards,stress from shift duties was the most frequently cited issue, affecting 17% of the participants. A review of the incident register further highlighted that slips and falls (28%), equipment hazards (23%), and needle stick injuries (19%) were the most commonly documented hazardsamong the 32 case reports.

Ponnambily Jobin et al (2017)
Assessment of occupational safety, hazards and related health problems among quarry workersat work places in India.
The objectives of this study were to assess the demographic variables, occupational safety, potential hazards, and health-related problems among quarry workers. A quantitative approachusing a descriptive design was employed to evaluate the occupational safety, hazards, and health issues in two quarry sites located in Vellore district, India. The study followed a cross- sectional survey approach and included 72 quarry workers. The first objective was to examinethe demographic variables of the quarry workers. The results indicated that the majority (52.8%) of the workers were between 18 and 45 years of age. The second objective focused onassessing occupational safety among the workers. It was found that none of the participants used personal protective equipment (PPE), there were no first aid boxes available, and no ambulance services were accessible within a 10 km radius of the quarry sites. The third objective involved assessing the potential hazards faced by quarry workers. Investigators classified these hazards into three categories: man-made, manual, and natural ergonomic hazards, based on their observations. The fourth objective was to evaluate the health-related problems of the workers. It was observed that 8.3% of the workers were diagnosed with diabetes mellitus, 12.5% with hypertension, and 2.7% with tuberculosis. Data analysis methodsincluded computing percentages to describe the demographic details of the participants, such as age, gender, work experience, and marital status. The mean age of the participants was calculated along with their work experience to provide further insight into the demographicprofile of the quarry workers.

Methodology
The survey method has been conducted for research

Sample selection
Population: In Gadhinglaj Taluka, there are six primary health centers staffed by 43 nursesand 196 ASHA workers.

Sampling Method:

The sample selection from above population was done by cooperative method and lotterymethod as follows

Kadgaon centre (11 nurses and 43 asha worker)

Nurses (11)

ASHA workers (28)

The selection criteria included:

- Female healthcare workers (nurses and ASHA workers)
- Experience working in healthcare centers within the Western Maharashtra region
- Direct interaction with patients and staff**,** as these interactions are pivotal to understanding harassment dynamics.

Data collection tool

Questionnaire: The researcher developed a structured questionnaire based on the study'sobjectives, which was reviewed and validated by experts that includes:

- **Demographic Information:** Age, years of experience, type of healthcare facility, etc.
- **Workplace Safety Perceptions:** Questions regarding safety policies, equipment availability,and safety training.
- **Harassment Experiences:** Items assessing types, frequency, and reporting of harassmentincidents, including both verbal and physical forms.
- 4-point **Scale:** Use a 4-point scale for respondents to indicate their agreement or experiences,which allows for quantitative analysis.

Pilot Testing: Conduct a pilot test of the questionnaire with a small group of female nurses torefine questions and improve clarity.

Data Collection Procedure

- Administer the survey offline in person, depending on accessibility and resources.
- Ensure confidentiality to encourage honest responses.

Data Analysis

1) Percentages were computed on participant's demographic details such as age, gender, work experience, and marital status , Workplace Safety and Harassment Incidents , Reportingand Response towards their complaints and training program and preventing measures**.** The analysis was conducted in three sections based on the objectives of the study, and then furtherdivided into two sections: ANM (Auxiliary Nurse Midwife) and ASHA (Accredited Social Health Activist) workers.

Results And Discussion

Percentages were computed on participant's demographic details such as age, gender, work experience, and marital status , Workplace Safety and Harassment Incidents , Reportingand Response towards their complaints and training program and preventing measures**.** The analysis was conducted in three sections based on the objectives of the study, and then furtherdivided into two sections: ANM (Auxiliary Nurse Midwife) and ASHA (Accredited Social Health Activist) workers.

Section 1: Workplace Safety and Harassment Incidents (Table 1-2, Figure 1-2)

Table 1: **-** Work place safety and harassment incidents among Asha workers

Number of respondents	Responses	Total responses	Percentage
	1. Never	11	5.61%
	2. Rarely	89	45.41%
	3. sometimes	66	33.67%
28	4. often	30	15.31%
		196	

ISSN: 3048-5320 (Online)

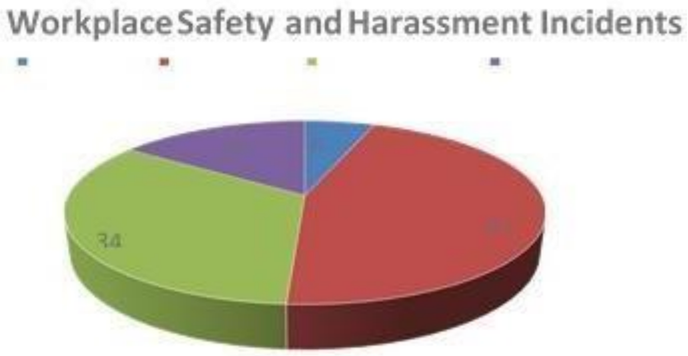
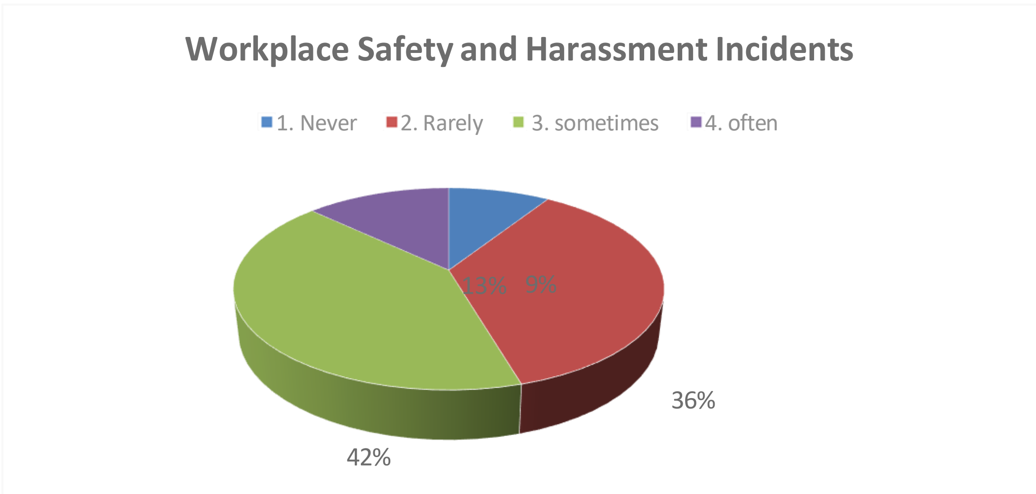


Fig 1: - Work place safety and harassment incidents among Asha workers

Table 2: - Analysis of Workplace Safety and Harassment Incidents Among ANM

Number of respondents	Responses	Total responses	Percentage
	1. Never	7	9.09%
	2. Rarely	28	36.36%
11	3. sometimes	32	41.56%
	4. often	10	13%

Fig 2: - Analysis of Workplace Safety and Harassment Incidents Among ANM



Perception of Safety in the Workplace:
The majority of employees seldom feel unsafe, but nearly half experience a sense of unsafety occasionally. This reflects a moderate level of concern regarding workplace safety, indicatingthat while many employees feel secure, there is a substantial number who sometimes feel threatened. The small percentage who feel unsafe often suggests that specific areas or situationsmight require attention to enhance safety for all employees.

Verbal Harassment:
Over 90% of respondents have experienced verbal harassment either frequently or occasionally, highlighting that this is a widespread issue in the workplace. Notably, 51.3% of respondents face this problem regularly, which may have a negative impact on their work environment and well-being. The low percentage of employees

experiencing it seldom indicates that verbal harassment is a common challenge. Addressing this issue could help fostera more respectful and supportive atmosphere.

Harassment Sources:
Most harassment incidents are reported as coming from patients, with few cases involving coworkers, supervisors, or other sources. This suggests that patient-related harassment is a significant issue that may need targeted interventions to improve how difficult interactions withpatients are managed and resolved.

Overall Harassment:
A majority (64.1%) of respondent’s report experiencing harassment rarely, which is a positivesign. However, nearly one-third (28.2%) face harassment occasionally, and 7.7% experience itoften or always, indicating that harassment is a recurring issue for a portion of employees. Thissignals a need for addressing these problems more directly to create a safer work environment.

Pressure Not to Report Incidents:
While most employees (69.2%) report rarely feeling pressure not to report incidents, 20.5% doexperience this sometimes. This points to a majority feeling secure in reporting incidents, but there is a notable group facing challenges that may deter them from speaking out. Improving this aspect could enhance transparency and accountability in the workplace.

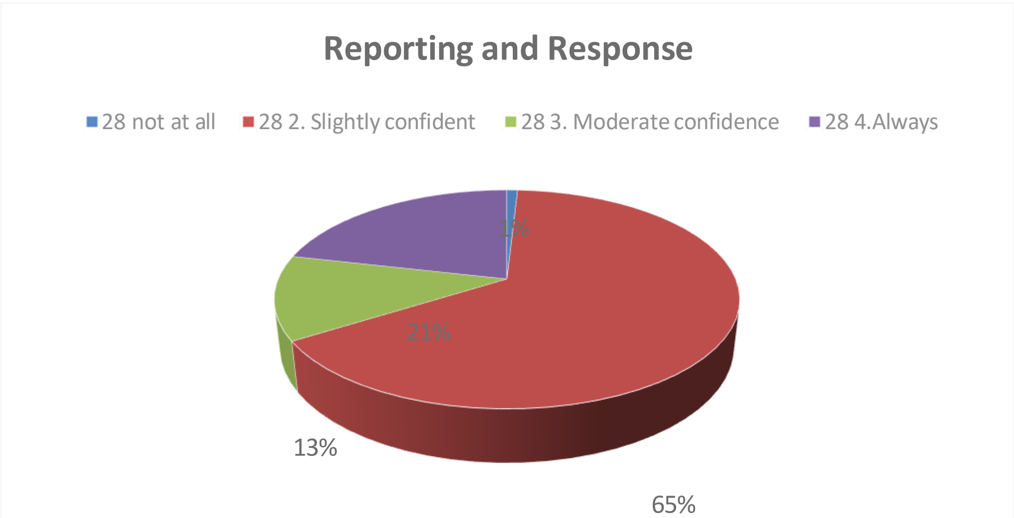
Physical Threats in the Workplace:
A majority (51.3%) of respondents never feel physically threatened at work, but 33.3% sometimes experience this concern. Although most employees feel safe, the substantial numberof those facing physical threats suggests a need for preventive measures to ensure a consistentlysecure work environment for everyone.

Section 2: ***Reporting and Response (Table 3-4, Figure 3-4)***

Table 3: - Analysis of Reporting and Responses Among ASHA Workers

Number of respondents	Responses	Total responses	Percentage
28	not at all	1	0.89%
	Slightly confident	73	65.18%
	Moderate confidence	14	12.5%
	Always	24	21.43%

Fig 3: - Analysis of Reporting and Responses Among ASHA Workers

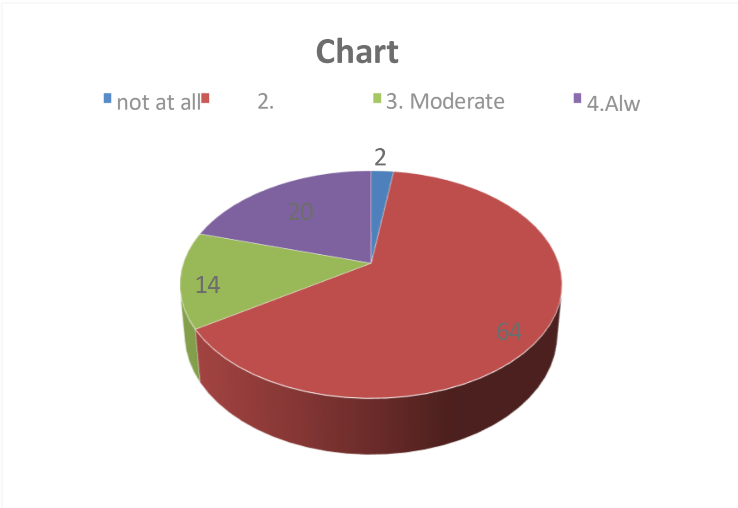


ISSN: 3048-5320 (Online)

Table 4: - Analysis of Reporting and Responses Among ANM

Number of respondents	Responses	Total responses	Percentage
11	not at all	1	2.27%
	Slightly confident	28	63.64%
	Moderate confidence	6	13.64%
	Always	9	20.45%
	Total	44	

Fig 4: - Analysis of Reporting and Responses Among ANM



Confidence in Reporting Harassment (Table 5-6, Figure 5-6)
The majority of respondents, approximately two-thirds, express confidence in the reliability of reporting harassment to their supervisor or HR. However, around 30.8% feel less assured, reporting only moderate trust in the process. A small percentage finds the system rarely dependable, indicating that while most employees trust the process, there remains a noticeablegroup who may lack confidence in the effectiveness or outcomes of reporting incidents. This suggests an area for improvement in building consistent trust across all employees.

Overall Trust in Harassment Reporting System:
Nearly 92.3% of respondents demonstrate skepticism or moderate confidence in the system's ability to properly address harassment. The largest group (48.7%) expresses only moderate confidence, suggesting they believe some actions are taken but are unsure of their thoroughnessor effectiveness. The absence of full confidence from any respondent suggests a potential gapin trust or satisfaction with the management of harassment cases. This highlights a need for greater transparency, communication, or efficiency in handling these incidents.

Low Confidence in the Reporting Process:
A small percentage (7.7%) of respondents express no confidence in the reporting process, potentially due to experiencing or witnessing unsatisfactory outcomes. This group may represent individuals with complete distrust in the process, suggesting an area requiring immediate improvement to restore faith in the system.

Perception of Management's Commitment to Addressing Harassment:
An overwhelming majority (92.3%) of respondents feel that management takes workplace harassment very seriously. This indicates a strong positive perception of the organization's commitment to addressing and managing harassment issues, demonstrating that efforts by management are recognized and appreciated by employees.

Support for Women Facing Harassment:
There is a highly positive perception of the support available for women who have been harassed at the workplace. A significant majority (94.3%) rate the support as either "very promising" or "promising," reflecting a high level of satisfaction with the resources andservices provided to women facing harassment

ISSN: 3048-5320 (Online)

*Section 3: **Training and Prevention***

Table 5 : - Analysis of Training and Prevention Among ASHA worker

Number of respondents	Responses	Total responses	Percentage
28	Not Effective	27	24.11%
	Slightly Effective	6	5.36%
	Moderately Effective	79	70.54%
	Highly Effective	0	0%
		112	

Fig.5 : - Analysis of Training and Prevention Among ASHA worker

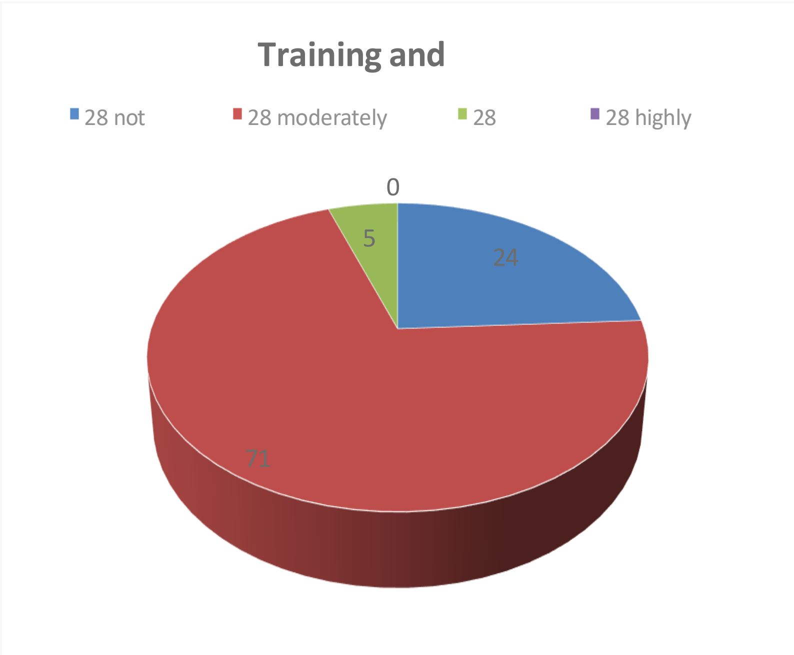


Table 6: - Analysis of Training and Prevention Among ANM

Number of respondents	Responses	Total responses	Percentage
11	Not Effective	0	0 %
	Slightly Effective	14	31.82%
	Moderately effective	28	63.64%
	Highly Effective	2	4.55%
		44	

Fig 6: - Analysis of Training and Prevention Among ANM

Lack of Workplace Safety and Harassment Prevention Training:
A significant majority of respondents (87.2%) report never having received any workplace safety or harassment prevention training, highlighting a major gap in this area. This suggests that employees may not be adequately prepared to prevent or address workplace safetyconcerns, and targeted interventions are necessary to improve the current situation and promotea safer work environment.

Perception of Current Training:
Most respondents view the current training as moderate or sufficient, but none rate it as perfect.Approximately 25% of respondents believe there is not enough training, indicating that while some training is in place, there remains room for improvement. Enhancing the content and frequency of the training could help address the needs of those who find it insufficient.

Frequency of Training:
All respondents report receiving workplace safety and harassment prevention training, but onlyonce per year. The absence of more frequent or regular training raises concerns that a once-a- year session may not be sufficient to maintain ongoing awareness or adapt to new issues or policy changes. More frequent training may be necessary to ensure continuous education, especially in workplaces where harassment incidents occur frequently or new safety measuresare introduced.

Perception of Security Measures:
A majority (69.2%) of respondents have a positive perception of current security measures, rating them as very effective. However, half of the respondents (50%) also consider the securitymeasures to be ineffective. This contradiction suggests that while many employees appreciateexisting safety protocols, there is still significant dissatisfaction and room for improvement inmaking the workplace more secure.

Conclusion:

The analysis of the first section reveals both positive and concerning trends in the workplace. While many employees report feeling safe and facing harassment infrequently, significant groups are experiencing challenges related to verbal harassment, pressure to avoid reporting incidents, and physical threats. These issues highlight areas where focused actions are needed to create a more secure, respectful, and supportive workplace environment

The qualitative data in the second section reveals a generally positive outlook on management'sapproach to workplace harassment and the support available for women. However, there are notable areas for improvement, particularly in building confidence in the reporting process andaddressing concerns about the system's reliability. Increased transparency, communication, and trust-building initiatives could help enhance employee confidence and ensure the consistent effectiveness of the harassment reporting process.

The analysis of the third section reveals critical areas of concern regarding workplace safety and harassment prevention training. There is a substantial gap in training frequency, with manyemployees having never received any training, and existing training programs are viewed as only moderately effective. Additionally, while some employees view security measures positively, a large portion believes they are inadequate. To address these issues, more frequentand comprehensive training programs are needed, as well as improvements to workplace security measures.

References

Bullappa, A. and Kengnal, P., (2017). Assessment of quality of life of ASHA workers usingWHOQoL-BREF questionnaire. International Journal of Community Medicine and Public Health, 4(6), pp.2060-2064.

Nichols, F.H., (2000). History of the Women's Health Movement in the 20th Century. Journal of Obstetric, Gynecologic & Neonatal Nursing, 29(1), pp.56-64. Available at: https://doi.org/10.1111/j.1552-6909.2000.tb02756.x [Accessed 18 Oct. 2024].

Patil, K.H., Tawar, N.S. and Kudale, A.M., (2024). A post-COVID-19 assessment of resilience of nurses and paramedical workers in municipal hospitals of urban Pune, India. Journal of Family Medicine and Primary Care, 13(4), p.1460. Available at:https://doi.org/10.4103/jfmpc.jfmpc_947_23 [Accessed 18 Oct. 2024].

Minikumary, C.K., Pillai, J.S.K. and Mondal, R., (2023). A study on occupational safety andhealth among workers at a tertiary care hospital at South India. Journal of Community Medicineand Public Health, 10(1), p.254.

Jobin, P., Veparala, A.S., Varghese, A., Jose, A.T., Walling, K.I. and Sadan, V., (2017). Assessment of occupational safety, hazards and related health problems among quarry workers at workplaces in India. International Journal of Nursing Education and Research, 5(1).

A Study of Product Packaging on Consumer Behaviour of FMCG (Fast Moving Consumer Goods) Products- With Reference To Krishnagiri City, Tamil Nadu, India

Dr. Mary J Priyadharisini
Research Supervisor and Assistant Professor, Department of Commerce Unique College of Arts & Science, Kararpattu, Krishnagiri (DT), Tamilnadu, India.

Sumithra P
Research Scholar (PT) and Assistant Professor, Department of Commerce Unique College of Arts & Science ,Karapattu, Krishnagiri(DT), Tamilnadu, India.

Abstract
This study explores the impact of product packaging on consumer buying behavior, particularly focusing on FMCG (Fast-Moving Consumer Goods) products in Krishnagiri City. Packaging plays a crucial role in influencing consumers' purchase decisions, especially in today's competitive market where product differentiation is essential. The primary objective of this research is to analyze how various packaging elements—such as color, design, size, labeling, and shape—affect consumer perception and buying behavior.
To achieve this, the study utilizes a structured questionnaire to collect primary data from 250 respondents. The data is analyzed using SPSS software to draw insights into consumer preferences. Findings from the study reveal that packaging is a significant factor in driving impulse purchases, enhancing brand recognition, and influencing consumer satisfaction. The research highlights that packaging elements like the color scheme, material, and wrapper design are pivotal in attracting consumer attention, thereby affecting their purchasing decisions.
The study also delves into the demographic factors, such as income, age, and occupation, to determine their influence on consumer satisfaction with FMCG products. Statistical analyses, including the Kruskal-Wallis test, indicate that demographic variables do not significantly impact consumer satisfaction for most product categories, except in certain cases like biscuits and face cream where differences are observed.
Overall, the research underscores the importance of strategic packaging design as a non-price competitive advantage for FMCG brands. By effectively leveraging packaging elements, companies can influence consumer perceptions, enhance product appeal, and ultimately drive sales. The study concludes that well-designed packaging not only serves as a protective measure but also acts as a powerful marketing tool that communicates brand value and sways purchase decisions.

Keywords: *Product Packaging, Consumer Behavior, FMCG Products, Purchase Decision, Brand Differentiation.*

Introduction

Packaging has changed in a challenging environment over many years due to the rise of self-service and changing customer lifestyles. The company finds the package as a whole, the sales campaign, increasingly appealing. With its ability to promote impulsive buying, increase market share, and reduce promotional costs, the package becomes the ultimate selling proposition. Packaging serves as the vehicle needed to deliver a product to the end user, as opposed to packing cartons, crates, etc which is required for bulk shipments. Furthermore, packing is the art of encasing or protect goods that consumers have purchased for distribution, sale, and storage. The product package is what most consumers are drawn to, whether it be because of its color, design, image, barrier protection, instructions on how to use it, or the fact that it usually contains the product's expiration date. The author refers to packaging as the silent salesman in the store, acting as the only means of communication between a product and the final consumer at the point of sale. A product needs to have the bare minimum of protection known as packaging provided by the manufacturer through the use of containers in order for it to pass through the distribution channel safely. The protection of processed foods and fresh produce during transportation, storage, point of sale, and preparation for consumption is largely dependent on packaging. By doing this, it lessens food waste and assists in fulfilling a variety of purposes. The goal of packaging, as a silent salesman, is to sway the point of purchase buyer's decision by using factors like package design and color. Packing is a business strategy used by most companies to create a positive impression of the product they contain, thus providing them with a non-price competitive advantage. Due to its ability to set a producer's product and identity Apart from that of its rivals, packaging is a crucial strategic component for brand differentiation and identity. The authors discovered that using product images in packaging designs draws attention to brands, particularly those that offer experiential benefits and are less well-known.

Review of Literature

Charles W. Lamb et al., (2011) In their book "Essentials of Marketing," the authors state that packaging serves four different marketing purposes. It safeguards and includes the product. It advertises the merchandise. In the end, packaging facilitates recycling and lessens environmental damage while assisting customers in using the product. As a result, packaging serves purposes beyond simply safeguarding the company's merchandise. Additionally, it aids in shaping the consumer's perception of the product. Therefore, neglecting the packaging's design may make it less likely to be noticed and appealing, which may lead to a reduction in sales.

Ahmad &Lakhan, (2012) carried out their study in India using a sample size of 15 respondents for the pulse rate and 103 respondents for the questionnaire. Studies indicate that packaging is a key element of the marketing mix's "Product" component. This essay seeks to quantify the contribution of packaging to brand awareness while taking into account the elements of packaging that influence the final user's perception of the brand. In addition to its other essential uses, packaging serves as a tool for advertising. Companies today are developing new tactics and techniques to acquire and retain customers through their unique packaging strategies because proper and appropriate packaging can help a brand shape a particular place in consumers' minds as well as in the marketplace. The study's goal was to investigate consumer perceptions of various milk package design components.

Ksenia,(2013) indicates that the consumer is influenced in different ways by the packaging design elements. While certain products draw in customers, others are overlooked. Different people have varied perspectives on packages and their designs; while some may find the image and color appealing, others may not even notice it. The result shows that attraction factors are valued according to the specific milk package design, and two milk package designs are perceived differently.

Objectives of the study

- To ascertain the impact of product packaging on customer behavior.
- The purpose of this study is to determine the impact of package elements—such as size, shape, and labeling—on consumer perception and purchasing behavior.
- To know perception of customer towards packaging in purchase of product.

Research Methodology

Approach: The study uses a quantitative research approach to investigate the impact of various packaging elements (like color, shape, size, and labeling) on consumer buying behavior.
Data Collection: Primary data was collected through structured questionnaires administered to the respondents. This data was then analyzed using statistical software (SPSS) for decision-making related to the study's objectives. The research design adopted is descriptive as it aims to describe the relationship between packaging elements and consumer purchasing decisions. The study focuses on assessing how independent variables (packaging features) influence consumer behavior, thereby helping to draw conclusions about their effects on buying patterns.

Sampling Techniques

Sampling Method: The study uses convenience sampling, which involves selecting respondents who are readily available and willing to participate in the survey. This method is often used when quick data collection is required, and a large, diverse sample is not strictly necessary for the research.
Sample Size: The research included a sample of 250 respondents to ensure sufficient data for analysis.
The sampling procedure included distributing the questionnaire to individuals in Krishnagiri City. The respondents included consumers of FMCG (Fast-Moving Consumer Goods) products, and the study was focused on understanding their perceptions related to packaging and its influence on their purchasing behavior.
The study aimed to assess variations in consumer preferences based on demographic factors like income, occupation, and age.

Theoretical Frameworks

Theory of Consumer Buying Behavior

The study of buying patterns and the exchange procedures involved in the acquisition, utilization, and disposal of products, services, and concepts is known as consumer behavior. According to the writers, consumer behavior is any activity in which people make actual or potential use of the various products on the market, such as ideas,

 ISSN: 3048-5320 (Online)

goods, services, and store environments. In considering consumer behavior, the "physical, emotional and mental activities which people are engaged with when choosing, purchasing, using and disposing goods and services to satisfy their needs and desires" The author characterizes the consumer as a decision-making entity that endeavors to gather and analyze information, whether intentionally or inadvertently, in the current context and strives to enhance and fulfill his personal desires.

Theory of Packaging

Packaging includes the design and production of a container or wrapper for a product. In view of Ampuero and Vila, packages are in direct contact with the product, maintain and protect the product, prevent it from being spoiled, cause it to be identified, and facilitate its transport, in addition to granting commercial aspects to the product. The authors have defined packaging as the science, art, and technology of protecting products to control, transport, and store them and to display information.

Labeling creates consumer awareness of a product

Packaging and packaging design are now important marketing considerations for a wide range of "consumer goods," and they play a key role in informing customers about the advantages of a product. The main players in the development and execution of packages are the customers. Therefore, understanding and satisfying the consumer is the primary concern for packaging design. A unique package design has the power to alter consumer perception of a product and establish a new niche. For many consumer non-durables and maybe even some durables, packaging may have a direct impact on consumer trial, satisfaction, and repeat business.

Product differentiation influences consumer evaluation of the product

The label is essential to maximizing the product's effectiveness since it acts as the consumer's first point of contact. Labels inform consumers, and product descriptions assist them in making knowledgeable decisions. Studies show that labeling has an impact on consumers' purchasing decisions. A printed label serves as a source of crucial information in addition to carrying the brand name. The availability of nutritional information may persuade customers to choose healthy food items over unhealthy ones. Because of globalization, consumers have become more demanding, which has led producers to better understand consumer psychology and provide them with useful advice on how to serve the public good and meet market demands.

Product attractiveness stimulate consumer interest in a product

According to the author, the package can draw in customers, convey the name and image of the business, set the brand apart from rivals, and improve the usability of the product. As a result, the package itself serves as a decisive instrument for communication and informs customers about the product while they are making a purchase. Packaging plays a major role in influencing consumer decisions because its main functions are to draw attention to the product, sell it, and enable it to be used, contained, and protected.

Results and Discussion

Level of satisfaction with the availability of the following FMCG goods based on income.

An attempt was made to know the level of satisfaction with the availability of the following FMCG goods: toothpaste, bath soap, shampoo, biscuits, detergent powder, and face cream, based on the income: less than 15,000, between 15,001 and 25,000, between 25,001 and 35,000, between 35,001 and 45,000, and above 45,001.

Table – 1 : Mean Rank for Income and Level of Satisfaction with the Availability of the Following FMCG Goods

Level of Satisfaction	**Mean Rank**				
	Less than 15000	**Between 15001 - 25000**	**Between 25001 - 35000**	**Between 35000 - 45000**	**Above 45001**
Toothpaste	28.22	29.97	37.67	37.67	31.36
Bath Soap	30.48	27.18	28.75	40.50	35.86
Shampoo	26.39	30.21	33.00	42.00	40.00
Biscuits	30.04	23.94	37.67	40.00	38.00
Detergent Powder	30.17	29.09	34.17	31.50	31.64
Face Cream	31.13	27.88	25.33	39.50	35.00

Sources: Computed Data

To identify the level of satisfaction with FMCG products based on income, the following null hypothesis is proposed.

Ho: There is no significant difference in the level of satisfaction among the income group of FMCG products in Vellore district.

The non parametric statistics of Kruskal- Wallis test was used to analyses level of satisfactions on availability of following FMCG products in this context. The details of the results of the Kruskal-Wallis test are presented in Table-2.

Table-2 : Degree of contentment with the following FMCG products' availability according to income

	Chi- Square	P -Value
Toothpaste	2.434	.656
Bath Soap	2.635	.621
Biscuits	6.287	.179
Detergent Powder	.477	.976

Sources: Computed Data

Show the Kruskal-Wallis test results. At the five percent significance level, the null hypothesis is accepted because the P value is higher than 0.05. This indicates that, with the exception of "Biscuits," every respondent ranked their degree of satisfaction with the availability of the following FMCG products nearly equally. It is possible to draw the conclusion that respondents' income has no bearing on how satisfied they are with the availability of FMCG products, with the exception of "biscuits" (C.V 6.287), p value 0.179, $p<0.05$.

Table-3 : Mean Rank for Occupation and Level of Satisfaction with the Availability of the Following FMCG Products

Level of Satisfaction	Mean Rank				
	Student	**Homemaker**	**Government Employee**	**Private Employee**	**Professional**
Toothpaste	30.24	19.00	51.50	33.88	25.75
Bath Soap	30.22	43.50	47.50	29.92	26.33
Biscuits	29.19	40.00	6.00	36.50	27.92
Detergent Powder	30.32	41.25	26.00	33.42	23.00

Sources: Computed Data

To test attributes on purchase of goods based on occupation to the following null hypothesis is proposed.
Ho: There is no significance difference in attributes on purchase of goods different level of occupation of FMCG products in Vellore district. The non-parametric statistics of the Kruskal-Wallis test were used to analyze the attributes of the purchase of goods in this context. The details of the results of the Kruskal-Wallis test are presented in Table 4.

Table-4 Wallis test –Occupation and Level of Satisfaction with Availability of the following FMCG Products

	Chi- Square	P _Value
Toothpaste	3.747	.441
Bath Soap	2.683	.612
Biscuits	4.780	.311
Detergent Powder	2.485	.647

Sources: Computed Data

ISSN: 3048-5320 (Online)

Since the P value is greater than 0.05, the null hypothesis is accepted at the level 5 of significance. Hence, all the respondents have almost given similar rank to the attributes on the purchase of goods except' Face Cream'. It could be concluded that the occupation of the respondents does not affect the ranking given to the attributes on purchase of goods, except 'Face cream' (C.V 6.798),), p value 0.147, p<0.05).

Table-5 : Mean Rank for Age and Level of Satisfaction with Availability of the following FMCG Products (Toothpaste)

	Mean Rank			
Age of the respondents	**Below 20**	**Between 21 - 30**	**between 31 - 40**	**Above 41**
Strong and Health Teeth	29.86	30.27	28.70	38.25
Fresh Breath	31.02	30.19	30.30	29.50
Shines White	32.68	29.98	21.90	31.00
Low Price	30.40	32.62	18.50	32.38
Easy Availability	28.96	32.96	19.80	37.50

Sources: Computed Data

To test the attributes of tooth paste production age, the following null hypothesis is proposed:

Ho: There is no significant difference in the attributes of the toothpaste products among different age groups of FMCG products in Vellore district. The non-parametric statistics of the Kruskal-Wallis test were used to analyze the attributes of toothpaste products in this context. The details of the results of the Kruskal-Wallis test are presented in Table 6.

Table-6: Wallis Test –Age Groups and Level of Satisfaction on Availability of following FMCG Products. (Toothpaste)

	Chi-Square	P Value
Strong and Health Teeth	1.009	.799
Fresh Breath	.050	.997
Shines White	1.724	.632
Low Price	1.796	.616
Brand Image	3.213	.360
Easy Availability	3.682	.298

Sources: Computed Data

Since the P value is greater than 0.05, the null hypothesis is accepted at the 5 percent level of significance. Hence, all the respondents have almost given similar rank to the attributes of tooth paste products except 'Easy Availability'. It could be concluded that the age group of the respondents does not affect the ranking given to the attributes of the toothpaste products except' easy availability (CV 3.682).

Table-7: Mean Rank for Age and Level of Satisfaction on Availability of the following FMCG Products (Bath Soap)

	Mean Rank			
Age of the respondents	**Below 20**	**between 21 - 30**	**between 31 - 40**	**Above 41**
Good Cleaning	30.64	31.23	24.10	32.88
Good for Skin	28.86	32.94	34.50	19.88
Easy Availability	31.42	31.42	18.60	33.63
Low Price	35.10	28.50	24.30	22.50
Brand Image	31.16	30.85	25.10	30.88

Sources: Computed Data

To test the attributes of bath soap products based on age the following null hypothesis is proposed.
Ho: There is no significance difference in the attributes of bath soap products among different age groups of FMCG products in Vellore district. The non parametric statistics of kruskal-Wallis test was used to analyse the attributes of bath soap products in this context. The details of the results of kruskal-Wallis test are presented in table 8

Table-8: Wallis Test –Age Groups and Level of Satisfaction on Availability of following FMCG Products. (Bath Soap)

	Chi-Square	**P Value**
Good Cleaning	0.915	.822
Good for Skin	2.922	.404
Easy Availability	3.145	.370
Low Price	4.332	.228
Brand Image	0.633	.889

Sources: Computed Data

Since the P value is greater than 0.05, the null hypothesis is accepted at the 5 percent level of significance. Hence, all the respondents have almost given similar rank to the attributes of bath soap products except' low price'. It could be concluded that the age groups of the respondents do not affect the ranking given to the attributes of bath soap products except 'low price' (CV 4.332).

Table-9 : Mean Rank for Age and Level of Satisfaction on Availability of following FMCG Products (Biscuits)

Age of the respondents	**Mean Rank**			
	Below 20	**between 21 -30**	**between 31 -40**	**Above 41**
Good Taste	33.84	27.40	32.00	27.88
More Cream/ Flavours	27.02	32.38	38.90	29.50
Low Price	29.20	32.02	27.00	33.13
Brand Image	29.38	32.21	28.10	29.38
Easy Availability	32.30	29.62	28.10	28.00
Quality	30.28	33.50	24.80	19.50
Seasonal Offers	31.76	30.37	26.60	28.38

Sources: Computed Data

To test the attributes of biscuit products based on age, the following null hypothesis is proposed:

Ho: There is no significant difference in attributes of biscuit products among different age groups of FMCG products in Vellore District. The non-parametric statistics of the Kruskal-Wallis test were used to analyze the attributes of biscuit products in this context. The details of the results of the Kruskal-Wallis test are presented in Table 10.

Table-10: Wallis Test –Age Groups and Level of Satisfaction on Availability of following FMCG Products. (Biscuits)

	Chi-Square	**P Value**
Good Taste	2.329	.507
More Cream/ Flavours	2.970	.396
Low Price	.706	.872
Brand Image	.550	.908
Easy Availability	.608	.895
Quality	3.515	.319
Seasonal Offers	.498	.919

Sources: Computed Data

ISSN: 3048-5320 (Online)

At the five percent significance level, the null hypothesis is accepted because the P value is higher than 0.05. With the exception of "quality," all respondents ranked the attributes of biscuit products nearly equally. The results suggest that the respondents' ages have no bearing on the order in which the characteristics of biscuit products are ranked, with the exception of "quality" (C.V. 3.515).

Findings and Observations

The study reveals that packaging significantly influences consumer buying decisions, particularly in the FMCG sector. Elements such as color, shape, size, and labeling are found to be critical factors that attract consumer attention and drive purchase decisions.

Analysis using the Kruskal-Wallis test indicates that income does not significantly affect consumer satisfaction for most FMCG products, except for items like biscuits, where differences were observed. Similarly, the study shows that factors such as occupation and age generally do not have a significant impact on consumer satisfaction, with a few exceptions like face cream (occupation) and easy availability of toothpaste (age).

Packaging is identified as a non-price competitive advantage. Well-designed packaging helps companies differentiate their products from competitors, enhances brand recognition, and can drive impulse purchases.

Suggestions and Recommendations

FMCG companies should invest in innovative and attractive packaging designs to catch the consumer's eye on the shelves. Utilizing vibrant colors and distinct shapes can significantly enhance product visibility.

Accurate and informative labeling can increase consumer confidence. Companies should highlight key product features, benefits, and nutritional information clearly on the packaging to influence health-conscious buyers. While the study found limited demographic differences, brands can still benefit from customizing packaging elements for specific target groups, such as youth-oriented designs or eco-friendly packaging for environmentally conscious consumers.

Effective use of packaging can strengthen brand loyalty by providing a consistent brand experience. Companies should consider using packaging as a tool to engage customers through limited editions or promotional packaging.

Scope for Future Research

Future studies can explore the impact of demographic variables like gender, education level, and geographic location on consumer behavior towards packaging. This would provide a deeper understanding of how packaging preferences vary across different consumer segments. Conducting comparative studies across different cities or regions can help identify regional preferences and trends in consumer packaging choices, enabling companies to localize their marketing strategies.

Further studies can investigate how new technologies, such as QR codes, augmented reality (AR), or smart packaging, can enhance consumer engagement and influence purchase decisions.

Conclusion

This study looked at how brand packaging components affected consumer satisfaction. The research paper's data were quantitative in character. Color, size, form, and labeling of the package are independent variables. Packaging is a vital and significant factor that greatly affects consumer purchasing decisions. It can be regarded as one of the most important tools in today's marketing communications since it collects more thorough data on its component parts and provides an understanding of how those parts influence consumers' purchasing decisions. By analyzing the importance of each component's individual contribution, it is possible to show how the package and its components influence the consumer's choice. . By assessing the significance of each component's individual contribution to the consumer's choice, it is possible to show how the package and its components have an impact on the consumer's purchasing decision. For this purpose, the most important key package components were thought to be the packaging's color, size, shape, and content. Packaging that conveys the product's message effectively and in an appealing manner might influence consumer behavior. Customers experience happiness when they see a color. Packaging with eye- catching hues gives a product a point of differentiation, and the brand can claim certain colors.

References

Dhurup, M., Mafini, C. & Dumasi, T. (2014) 'The impact of packaging, price and brand awareness on brand loyalty: Evidence from the paint retailing industry', Journal Name, pp. 1-9.

Gelici-Zeko, M.M., Lutters, D., Klooster, R.T. & Weijzen, P.L. (2013) 'Studying the influence of packaging

ISSN: 3048-5320 (Online)

design on consumer perceptions (of dairy products) using categorizing and perceptual mapping', Packaging Technology and Science, 215-228.

Jyoti, B. & Dibyojyoti (2010) 'Impact of packaging on the buying behaviour of consumers in a communicationally remote urban area', Research Bulletin of the Institute of Cost and Works, pp. 1-11.

Ksenia, P. (2013) Packaging design as a marketing tool and desire to. Available at: [Insert URL if online] (Accessed: Day Month Year).

Kuvykaite, R., Dovaliene, A. & Navickiene, L. (2009) 'Impact of package elements on consumer's purchase decision', Economics and Management, 441-447.

Miremadi, A. & Faghani, E. (2012) 'An empirical study of consumer buying behavior and its influence on consumer preference in Iranian FMCG market: A case study', International Business Management, 146-152.

Deliya, M.M.M. & Bhatt, M.B. (2012) 'Role of packaging on consumer buying behavior – Patan', Global Journal of Management and Business Research, 48-68.

Rundh, B. (2013) 'Linking packaging to marketing: how packaging is influencing the marketing strategy', British Food Journal, 1547-1563.

Shah, S., Ahmad, A. & Ahmad, N. (2013) 'Role of packaging in consumer buying behavior: A study of university students of Peshawar Region KPK Pakistan', International Review of Basic and Applied Sciences, 35-41.

Shekhar, S.K. & Raveendran, T.P. (2013) 'Role of packaging cues on consumer buying behaviour', International Journal of Engineering and Management Sciences, 61-69.

Stravinskienė, J., Rūtelionė, A. & Butkevičienė, V. (2008) 'Impact of consumer package communication on consumer decision making process', Economic Business Management, 1-9.

CIJ-India
Vol- 2, Issue No- 4, October 2024

ISSN: 3048-5320 (Online)

Evaluating the Influence of Green Marketing on Mauritian Consumer Behaviour: Insights into Green Branding, Eco-Labelling, and Advertising

Leenshya Gunnoo
University of Technology
Mauritius

Eric Bindah
University of Technology
Mauritius

Kinoo Arshaq Sajjaad Ahmad
University of Technology
Mauritius

Abstract

The goal of green marketing is to focus the efforts of an organisation on developing, promoting, pricing, and distributing products in a way that can contribute to environmental protection. The goal of the current study is to ascertain how Mauritian consumers' purchasing decisions are impacted by green marketing strategies such as green branding, eco-labeling and green advertising. 290 respondents' data were gathered for the study using a structured survey questionnaire using a quantitative methodology. According to the study's findings, customer purchasing behaviour is significantly positively correlated with green branding and advertising. The current study has added to the body of literature by examining green marketing strategies in Mauritius both with and without environmental awareness. The study's findings may assist marketers focus more on how green advertising is a reliable indicator of what consumers will purchase. It also encourages them to bring their ecofriendly initiatives closer to the actual world in order to win over more customers. Nevertheless, the study's sample size is quite limited, and not all aspects of green marketing have been considered.

Keywords: Green Marketing Strategies, Consumer Purchasing Behaviour, Environmental Awareness, Eco-friendly Branding and Advertising

Introduction

Green marketing is a growing subject that has drawn a lot of attention from researchers. A concept known as "green marketing" incorporates environmental considerations into every step of the marketing process. Going green has led to the adoption of green marketing as a commercial strategy to set products and company practices apart for customers. Nonetheless, there is not a singular definition of green marketing that is acknowledged by everybody. For example, according to Ottman et al., (2006), green marketing is the process of creating and promoting environmentally friendly products and practices, which helps businesses stand out in the market by appealing to environmentally conscious consumers. Leonidou, et al., (2013) have argued that green marketing entails the holistic management of environmental concerns throughout all aspects of a company's marketing activities, from product design and production to distribution and promotion.

Peattie & Crane (2005) argued that by providing environmentally friendly products, green marketing seeks to satisfy the needs of eco-conscious consumers, influencing their purchasing decisions and encouraging sustainable consumption habits. The definition utilized in this study is from Peattie et al. (2005) because it encompasses both environmental awareness and the influence of green marketing on consumer buying behavior, which is the main emphasis of this study. The success of green marketing initiatives and the shaping of environmentally conscious consumers choices are directly influenced by consumer awareness and comprehension of environmental issues (D'Souza et al., 2007). However, the efficiency of green marketing methods in influencing consumer behaviour is significantly hampered in developing countries by consumers 'lack of environmental awareness and knowledge (Polonskye et al., 2010).

Due to rigid laws in many countries especially in developed countries, environmental restrictions have progressively transitioned from voluntary initiatives to mandatory obligations (Delmas & Montes-Sancho, 2011). A green consumer is someone who places a high value on buying sustainably produced products and stays away from products that harm the environment, use many non-renewable resources, or entail unethical procedures like animal testing (Joshi & Rahman, 2015). Varkaris and Neuhofer's (2017) research indicated that businesses are being pushed to adopt green practices and promote the concept of corporate environmentalism due to a number of factors, including the general rise in environmental consciousness, significant advertising efforts by organisations promoting green products, and growing consumer awareness and concern about environmental issues. Consequently, growth in this field have given organisations the chance to focus on their marketing niche (Wahid, N. A., Rahbar, E., & Shyan, T. S., 2011).

Green marketing practices have become more popular in recent years. The global market for green marketing is projected to rise from USD 51068.05 million in 2022 to USD 63085.83 million by 2028, according to statistics provided by Linkedin (2024). This is mostly attributable to heighten environmental consciousness among government agencies, businesses, and consumers alike. Therefore, even if they are more expensive, switching to environmentally friendly items is seen as a must in the modern world. The fundamental concept of green marketing revolves around educating people about environmental issues and persuading them to transition to eco-friendly products. This method not only serves as a marketing strategy but also plays a role in societal contributions by increasing awareness about the environmental impacts of non-green products. The way the public perceive environmental concerns is greatly influenced by media coverage. Public awareness, concern, and behaviour towards environmental protection can all be strongly influenced by the way environmental stories are presented and reported (Boykoff & Boykoff, 2004). Smith et al. (2010) investigated the impact of green marketing on consumer purchase behaviour by conducting a survey in Canada with 200 respondents. Their research showed that consumers' decisions are greatly influenced by eco-labels.

Similarly, Lee (2012) conducted a study in South Korea to look at the early stages of green marketing and discovered that consumers who were more acquainted with the environment had a stronger preference for green products. On the other hand, Leire and Thidell (2005) offered an alternative perspective on Nordic consumers by examining how environmental knowledge affects their choices of green products. Their findings showed that having environmental knowledge does not necessarily prompt consumers to make environmentally friendly purchases. They also argued that consumer-purchasing behavior varies under different buying conditions, indicating that simply having environmental knowledge does not always translate into green buying habits. In their research conducted in the Indian context, Singh and Kaur (2016) aimed to understand the role of environmental knowledge in influencing the effectiveness of green marketing on consumer purchasing behaviour. Their research revealed that environmental knowledge significantly influences consumer decisions to purchase green products. This research on the impact of environmental knowledge on consumer buying behavior for green products led to the introduction of this variable as a mediator in the relationship between green marketing and consumer buying behaviour in the current study. Our understanding of the difference it makes in the relationship between green marketing and consumer purchasing behaviour will increase because of its inclusion.

In order to influence consumers' environmental behaviour, green marketing is crucial. Businesses are focusing more on green communication because it can boost consumer trust in a company's environmental commitment, which in turn influences green purchasing. Studies, however, have typically addressed it in terms of corporate social responsibility rather than in relation to Mauritius' marketing context. Therefore, it is still necessary to comprehend the variables that affect consumers' decision-making processes. Thus, additional research is required to properly comprehend the potential of this significant subject before embracing the concept of green marketing, which is still in its infancy. Moreover, the majority of study on green marketing have been carried out in developed countries, especially in the US market (Jansson, J., Marell, A., & Nordlund, A., 2010). However, in developing countries, where purchasing habits and socioeconomic circumstances differ, things probably work differently. According to Biswas, A., & Roy, M. (2015), there is plenty of research on green marketing and how it affects customer purchasing decisions in developed countries. Research on the significance of green marketing techniques to affect consumer purchasing decisions in developing nations is, nevertheless, extremely scant.

One of the main factors encouraging consumers to choose environmentally friendly products is their level of environmental knowledge. Growing customer awareness of environmental issues may make green marketing tactics employed by companies more effective. According to Gunag and Boodhoo (2014), the citizens of Mauritius are noticeably unaware of environmental issues. Thus, knowing the effectiveness of green marketing initiatives in influencing customer purchasing behaviour will be enhanced by this study.

Given the research gaps mentioned in the preceding section, the current study's objective is to investigate at how consumer purchasing behaviour is affected by green marketing strategies such as eco-labeling, green branding, and green advertising while taking into account the mediating effect of consumer environmental understanding in Mauritius.

For a variety of reasons, it is crucial to look at how consumers' opinions of green marketing influence their purchase choices. First, by offering insights into the variables influencing purchase decisions, it enables organisations to comprehend consumer behaviour. Using this insight, organizations may more effectively align their marketing tactics with the values and preferences of their target audience. Businesses that identify key drivers, such eco-friendly packaging and sustainable sourcing, can focus their efforts on the most critical areas.

Additionally, this information improves marketing strategies. Businesses may develop more successful and focused marketing efforts that appeal to environmentally concerned consumers by having a thorough understanding of consumer views. Furthermore, it assists companies in becoming sustainability leaders in their field, differentiating themselves from competitors and drawing in a growing number of eco-aware clients.

The promotion of sustainable practices is an additional important factor. Through comprehending how green marketing affects consumer choices, companies may create plans that encourage environmentally friendly purchasing habits and support more general environmental objectives.

From a financial point of view, companies that successfully use green marketing to boost sales and revenue growth have chances in the growing green market. Furthermore, by providing policymakers with information regarding consumer attitudes towards green marketing, this research can assist develop laws and incentives that support sustainable corporate practices.

Academically speaking, this study fills in gaps in the literature, particularly in developing countries where there is a lack of research on green marketing. Furthermore, the results support the growth of theories concerning marketing, sustainability, and consumer behaviour. All things considered, examining how consumers' perceptions of green marketing affect their purchasing decisions is crucial for academics looking to deepen their understanding of this developing field, policymakers advocating for sustainable practices, and businesses hoping to thrive in an eco-conscious market.

Review of Literature

Green Marketing

Green marketing is aimed at directing a company’s efforts to undertake the processes of designing a product, its promotion, pricing, and distribution in a way that can help to protect the environment (Polonsky, 2011). It can encompass all production and distribution systems.

Through the use of green marketing, businesses have a great opportunity to innovate in ways that support environmental sustainability and provide financial success. Al-Swidi et al. (2024) asserted that the use of green manufacturing techniques has a favorable impact on green innovation and green entrepreneurial orientation. This relationship demonstrates how companies may use sustainable practices to boost innovation and gain a competitive edge. Eco-labeling, green branding, and green advertising are the three main metrics used in this study to quantify green marketing.

Eco-Labels

Eco-labels are initiatives taken by organizations to preserve the environment and for which they receive third-party certification. These certifications give businesses a competitive edge by drawing in consumers who favour eco-friendly goods. Such eco-labels help companies differentiate their products in the market, demonstrating their commitment to sustainability and attracting environmentally conscious consumers. Delmas et al. (2013) explained how eco-labels can significantly influence consumer-purchasing decisions by enhancing the perceived environmental benefits of products. The adoption of eco-labeling can serve as both a powerful marketing tool and a means to address environmental challenges such as climate change and global warming" (Delmas & Grant, 2014).

Green Branding

Any marketing strategy must include branding, as companies work to strategically position their brands for sustained success. Businesses are putting more effort into matching their brands with environmentally responsible principles as a result of growing environmental concerns. Their objective is to establish an impression among consumers that their brand provides extra advantages in terms of environmental sustainability and health (Grimmer & Bingham, 2013; Wahid et al., 2011).

Green Advertising

Green advertising seeks to persuade consumers to choose environmentally friendly products by highlighting the eco-friendly production processes and decrease waste associated with these products (Polonsky & Rosenberger, 2001). Recently, there has been a significant increase in green advertising, with environmentally conscious consumers becoming more interested in these kinds of advertisements (Leonidou et al., 2011).

Consumer Buying Behavior

The way that customers act when they make particular purchases is referred to as consumer buying behaviour. In green marketing situations, consumer purchasing behaviour is characterised by a preference for sustainable and environmentally friendly goods (Ottman, 2011). Consumers often feel a sense of pride when making environmentally conscious purchasing decisions. Techniques such as eco-labeling, green branding, and green advertising are employed to encourage these green buying choices" (D'Souza et al., 2006)

Environmental Knowledge

As environmental issues become more pressing and affect people's lives directly, it is essential for individuals to have the necessary knowledge to handle these challenges effectively" (Kollmuss & Agyeman, 2002).

Importance of Green Marketing

Reducing environmental effect and enhancing the company's reputation for environmental responsibility are the two key goals of green marketing strategies (Peathie & Crane, 2005). It's a novel concept that aids companies in reaching their long-term objectives of expanding their clientele by attracting new clients. Organizations are paying increased attention to ecoinnovation to use it as their marketing strategy. It is beneficial for organizations to achieve sustainable production processes while also gaining a marketing edge by influencing consumer behavior towards purchasing green products (Singh & Pandey, 2012).

Contemporary businesses are starting to understand the significance of eco-labeling in enhancing their brand image. Eco-labeled products play a role in minimizing potential information gaps between producers and consumers" (Hartmann & Apaolaza-Ibáñez, 2013). Consumers are able to generate knowledgeable perceptions about the companies due to the comprehensive description of environmental credentials (Mishra & Sharma, 2010).

Szabo et al. (2015) research on the impact of eco-labeling on consumer purchasing decisions in Europe showed that eco-labeled products significantly influenced consumers' decision, especially among environmentally conscious individuals. The findings underscored how crucial eco-labeling is as a strategy for encouraging sustainable purchase.

Green branding is increasingly acknowledged as an important strategy for businesses in competitive markets, especially when targeting environmentally conscious consumers (Kim & Choi, 2017). Chang and Chen's (2012) research highlighted how successful green branding can benefit businesses. According to their research, green branding has a major positive impact on customer perceptions of a company relative to its competitors, enhanced brand equity, and competitive positioning—all of which boost overall market performance.

Lin and Huang (2017) have highlighted the importance of green advertising in influencing customer behaviour across a range of industries. Their research indicates that effective green advertising strategies positively influence consumers' decisions to buy, increasing the market for eco-friendly goods. In the Mauritian market, this study seeks to evaluate the impact of ecolabeling, green advertising, and green branding on customer purchasing behaviour.

Understanding Consumer Buying Behavior

The Theory of Planned Behaviour states that intentions, perceived behavioural control, and subjective norms all have an impact on consumer purchasing behaviour. According to this hypothesis, intentions have a big influence on what customers do. Personal assessments of a behaviour and convictions regarding the results of particular actions mould attitudes. Customers, for instance, adopt a more positive attitude towards purchasing green items when they believe that doing so benefits society as a whole as well as themselves (Hassan, Shiu, & Shaw, 2016). This ultimately leads to the purchasing action.

Normative ideas compel people to act in particular ways because they are based on expectations from their families or society. A consumer's decision to purchase green items, for example, may be greatly influenced by social or familial pressure to do so in order to conserve the environment (Smith & Paladino, 2010).

Ajzen (2011) discussed how customer purchase behaviour is influenced by perceived behavioural restrictions, which include things like perceived ease or difficulty of acquiring a product and financial capabilities. Customers' assessment of their capacity to purchase ecologically friendly products, which are frequently more expensive, is particularly important. Ajzen (2011) contends that a combination of subjective norms, perceived behavioural controls, and individual goals significantly affects consumer purchase behaviour.

Therefore, green marketers employ all of the strategies outlined in the theory of planned behaviour in an attempt to sway customer purchasing decisions in favour of green product purchases.

Consumer Buying Behavior In Relation To Green Marketing

One of the primary factors driving consumers to choose green products is affordability. According to a survey conducted in Mauritius by Ramdhony and Oogarah-Hanuman (2012), consumer preferences for eco-friendly items were divided into groups according to socioeconomic status. The study found that 70% of high-income consumers, 62% of upper middle-class consumers, 55% of middle-class consumers, and 43% of low-income consumers chose to purchase green items. The smaller percentage of consumers who say they prefer green products implies that the low-income class frequently cannot purchase these products (D'Souza et al., 2007).

Researchers have also established a relationship between consumer behaviour and attitude using behavioural theories; that is, customers make purchasing decisions based on their positive attitudes towards particular products. Ottman (2011) has argued that there is little correlation between consumer attitudes and green behaviour. Pickett-Baker and Ozaki (2008) investigated consumer confusion over green products in the UK context. They discover that although customers' awareness of environmental issues was rising, many consumers struggled to understand what constitutes a green product, which made it more difficult for them to develop favourable attitudes towards green buying.

Customers are now equally accountable for protecting the environment through green purchasing, in addition to organisations. In a study done in South Korea, Kang and Park (2014) found that social norms have an enormous influence on whether or not customers choose to buy green items. This social pressure, however, is distinctive and changes as demographic factors do.

Previous researches argued that there are several factors that influence the behavior of the consumer in terms of the green products purchase including previous research findings, in Mauritian consumer‘s income class (Ramdhony et al., 2012) and South Korea social norms pressure (Kang et al., 2014). When it comes to the consistency of purchasing green products, psychological and social factors have a stronger persuasive influence on consumer behaviour than demographic factors (Pickett et al., 1995). In addition to environmental concerns, Lee and Park (2009) point out that customers might be strongly influenced to buy green products by factors like health consciousness, opinions about the quality of organic products, and ethical issues like animal welfare.

All of this suggests that not all customers have the same purchasing habits when it comes to these green products and services. Nevertheless, the focus of current research is limited to examining the direct influence of green marketing on consumer purchasing behaviour. Overall, a significant amount of prior research such as (Ramdhony and Oogarah-Hanuman, 2012; Kang and Park, 2014) suggests that businesses' use of green marketing techniques either directly or indirectly influences customer purchasing decisions in a variety of consumer goods industries.

The following hypothesis has been finally led by a wide range of studies showing positive outcomes in both developing country like Mauritius and developed ones like the United Kingdom and South Korea:

H1 (a): In Mauritius, consumers purchasing behaviour for green products is significantly positively correlated with green marketing.

Green Marketing through Eco-Labeling

Marketers can demonstrate that they have employed ecologically responsible and sustainable methods of product manufacture and distribution by using eco-labeling. These goods are licensed by independent third parties to be used as environmentally friendly goods. In a crosscultural research of Chinese and American consumers, Chan and Lau (2002) discovered that eco-labeling has a major influence on both cultures' green purchasing practices. They pointed out that consumers are positively influenced to purchase green items by eco-labeling, which gives them clear information about the environmental qualities of products. Eco-labeling appears to have a major influence on consumer purchasing behaviour in Finland, according to Jarvi (2010). Numerous additional investigations confirmed Jarvi (2010) findings and demonstrated how important it is to market eco-friendly products and influence consumers' intentions to purchase them. (Xie and Zhao, 2014; Smith and Jones, 2015). Leire and Thidell (2005), on the other hand, have presented conflicting findings, emphasising that while customers are aware of eco-labeling, it does not always influence their purchasing decisions. D'Souza et al. (2007) conducted a research, which revealed that consumers frequently show skepticism towards eco-labels and rarely trust or rely on them when making purchasing decisions. The study found that confusion and mistrust-surrounding eco-labels can significantly influence the effectiveness of eco-labels in promoting green consumer behaviour. Grunertet al., (2014) discovered that consumer concerns and awareness regarding subjects such food safety, quality, sustainability, environmental effect, and animal welfare are increased when eco-labeling are included in products. According to their research, these eco-labels are extremely important for educating and swaying consumer decisions in favour of more environmentally friendly consumption habits. According to Rex and Baumann (2007), consumers' willingness to buy eco-labeled products is one way to measure their success. They emphasised that opinions about the eco-label affect consumers' decisions to buy, and that an increased likelihood to buy is a key indicator of a successful product.

Most of the findings are based on research done in developed countries, where eco-labeling is a more widely accepted idea. In contrast, emerging countries have not done as much research on this subject. Therefore, based on these results, a hypothesis has been formulated to investigate whether the outcomes observed in developed countries are also applicable in developing countries, especially Mauritius.

H1 (b): In Mauritius, consumer purchasing behaviour for green products is significantly positively correlated with eco-labeling.

Green Marketing through Green Branding

Green branding is a significant factor in determining green marketing. Chen (2010) found that green marketing initiatives improve a company's brand image by strengthening green brand equity. The research shows that a strong green brand image, coupled with green satisfaction and green trust, significantly contributes to the overall value and perception of the brand in the eyes of consumers. According to Hartmann, Ibáñez, and Sainz (2005), a key strategy in green branding is green positioning, regardless of whether it is functional or emotional. They highlight that a brand may greatly influence consumer perceptions and improve brand distinctiveness in the marketplace by strategically focusing on green features. Moreover, their study showed that companies in Spain could increase the value of their products by using a green branding strategy. This may be among the most effective brand marketing techniques. Similarly, Arshad, R., Mahmood, U., Siddiqui, H., & Tahir, A. (2014) investigated the ways in which green branding and other green marketing strategies affect consumer intentions to buy eco-friendly products. The study emphasised the significance of environmental awareness and green branding in influencing green purchase intentions in Mauritius by showing a positive correlation between these factors and customers' purchasing patterns for green items. On the other hand, Matthes and Wonneberger (2014) in a study that examined the relationship between green consumerism and skepticism toward advertising. They found that green advertising could sometimes lead to skepticism among consumers, particularly when they perceive the green claims as insincere or exaggerated, which in turn negatively influence their buying decisions. In their meta-analysis of brand positioning and consumer purchasing behaviour, Cherian and Jacob (2012) discovered that while green brand positioning affects consumers' perceptions, it is unclear if this perception affects consumer purchasing behaviour.

The following hypothesis has been set to test the findings in Mauritius in order to further study this matter and based on those studies suggesting that there is a positive connection between green branding and customer buying behaviour.

H1 (c): In Mauritius, green branding is positively correlated with customer purchasing behaviour for branded green items.

Green Marketing through Green Advertising

Green advertising is the third significant factor that determines green marketing. It involves promoting environmentally friendly content and environmental sustainability. Ottman et al. (2006) highlighted that green marketing, which encompasses green advertising, started to take shape in the late 20th century and saw a noticeable increase in the early 21st century because of growing environmental restrictions and consumer knowledge of sustainability issues.

Mohamed (2016) carried out research to find out what factors influence the food business in Melaka, Malaysia, to use green packaging. This study shows that green marketing tactics, such as green advertising, have a significant effect on customers' purchasing decisions. However, not every customer was influenced by green marketing. Grebmer and Diefenbach (2020) investigated the challenges in communicating green marketing messages and discovered that although some customers react favourably to green advertising, many still have doubts about the credibility of green claims.

Consumers' environmental views are influenced by the cognitive orientation of green advertising, which has an important influence on their environmental knowledge and consciousness. This is supported by research from Hartmann and Apaolaza (2006), who found that cognitive persuasion strategies in green marketing positively influence consumer attitudes towards green purchasing. Juwaheer et al., (2012) investigated how consumers' purchasing pattern in Mauritius are influenced by green marketing tactics, such as green advertising, emphasising how exposure to different media affects consumers' purchasing decisions. People in Malaysia began to consider about the concerns surrounding environmentally friendly items and began to choose green products due to increased knowledge of eco-labels and green advertising (Rashid, 2009). To investigate the proposed relationship, the subsequent hypothesis has been formulated:

H1 (d): In Mauritius, green advertising is significantly positively correlated with customer purchasing behaviour for environmentally friendly products.

Green Marketing, Consumer Buying Behavior and Environmental Knowledge

Due to growing public knowledge of environmental challenges, consumers are now more likely to embrace eco-friendly behaviours and support the green movement (Chen, T. B., & Chai, L. T., 2010). According to Juwaheer et al. (2012), green marketing is still, relatively new in Mauritius. It is gaining more attention due to the substantial effects it has on Mauritius's environmental and economic conditions. Businesses in Mauritius are striving to raise enough awareness among consumers about green marketing and the purchase of green products. Awan & Shahid (2015) highlighted that due to lack of awareness, more attempts need to be made.

Research has shown that taking more ecologically beneficial actions may result from an increased awareness of environmental issues. As people who possess more environmental information are more inclined to practise eco-friendly practices, Matthes et al. (2014) claim that there is a relationship between environmental knowledge and pro-environmental behaviour.

Even in poor countries where it may be lower, environmental awareness still has a big impact on consumers' decisions to buy environmentally friendly items (Wahid et al., 2011). Chen et al. (2010) highlighted that consumers opt to purchase green items even when they have low levels of environmental awareness, demonstrating that even a modest amount of understanding can have an impact on pro-environmental purchasing behaviour.

Contrarily, despite the fact that consumers in developed countries typically possess a higher understanding of environmental issues, their actual buying decisions might differ (McDonald et al., (2006). Alevizou et al. (2015) investigated Greek and UK consumer purchasing patterns. Their findings indicate that, even when it comes to green items, consumers in the UK make most of their purchasing decisions based on accepted social norms. Contrary, in Greece, consumers' purchasing decisions were driven by their personal beliefs and behavioural controls; instead of making decisions based on social pressures, they base their decisions on their own beliefs (Cronin et al., 2011). According to Vermeir, I., and Verbeke, W. (2006), green marketing can successfully influence consumers' beliefs and perceptions about the environment, but it does not always translate in actual green product purchases. Nonetheless, Olofsson and Öhman (2015) presented contradictory findings, obtained from a research carried out across different countries. Their findings revealed that environmental concerns are much increased by environmental beliefs. Therefore, once they are persuaded that their purchases will contribute to reducing environmental problems, consumers make green purchases. According to Chan et al. (2008), consumers' actual green purchasing behaviour might not always correspond with socially responsible choices, even when they possess high levels of environmental knowledge. Due to lack of sufficient empirical data for developing countries, the purpose of this study is to examine, the relationship between consumer purchasing behaviour and environmental understanding in Mauritius. The following hypotheses have been developed:

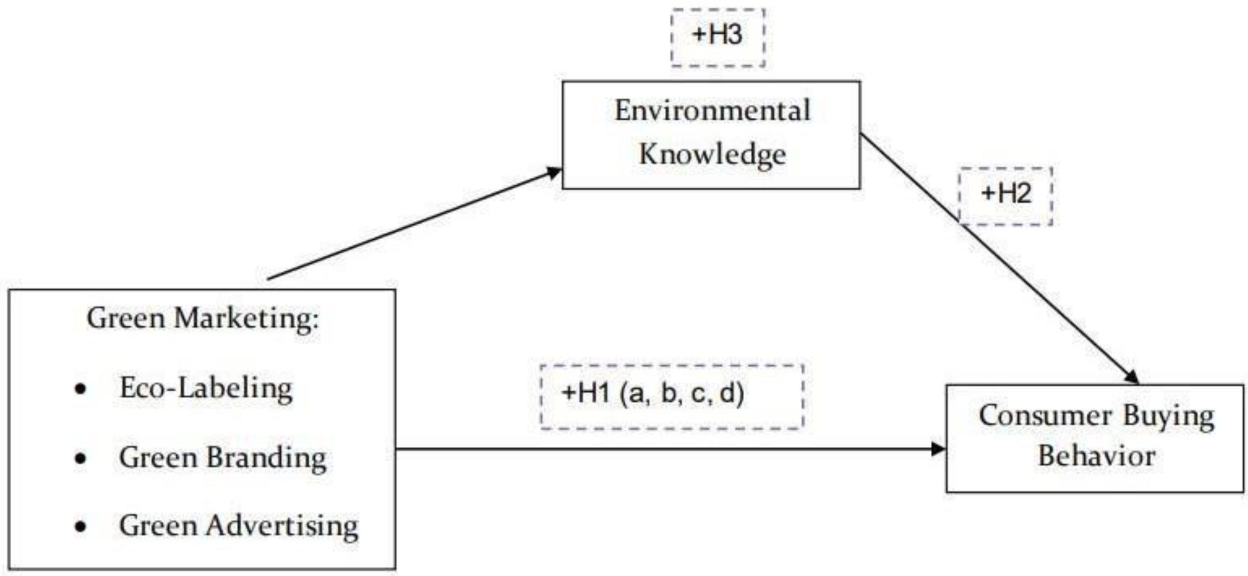
H2: There is a significant positive correlation between environmental knowledge and consumer purchasing behaviour.

H3: The relationship between green marketing and consumer purchasing behaviour is mediated by environmental knowledge.

Theoretical Framework

The theoretical framework shown in figure 1 has been formulated with the help of the literature discussed:

Table 2.1: Theoretical Framework



Research Methodology

As the study is deductively based, it is explanatory in nature. It looks for solutions to the discussed problem by using organised data collection sources. Since the goal of the research is not to explore a new concept, this research strategy is also the most appropriate given the existing circumstances. Instead, it is based on a real-world occurrence that has been thoroughly examined in a different setting.

Primary sources have been used to gather data for this study. Although primary research lacks authenticity, this drawback has been overcome by designing simple and concise questions that are specific, unambiguous, and free of technical jargon to keep respondents from becoming confused. In this case, a Google Form was used to collect the data.

A structured questionnaire was developed because the current study is quantitative in nature and aims to gather data from primary sources of data. The questionnaire's whole set of items was drawn from earlier studies, which improved the study's validity and reliability. The entire questionnaire was split into two sections: portion A has four questions that ask about the respondents' demographics. In contrast, portion B comprises 28 questions with a five-point Likert scale. The calculation of the green marketing variable, as presented in the theoretical framework, involves averaging the three base variables: eco-labeling, green branding, and green advertising. Of the thirty-two questions, fifteen have been devoted to green marketing, which has been further quantified using three variables: eco-labeling, eco-branding, and eco-advertising. While eight questions have been devoted to consumer purchasing behaviour, and the remaining five to environmental awareness. The set of five questions that assess consumers' environmental knowledge was taken from other studies (McDonald, S., & Oates, C. J. (2006), Wahid et al. (2011), Cronin et al. (2011), Matthes et al. (2014), Olofsson and Öhman (2015)). Thus, the computed variable made it easier for this study to comprehend how green marketing strategies affect customer purchasing behaviour when environmental awareness is present. Appendix C contains the questionnaire that was utilised in this study. Chang, S. J., Van Witteloostuijn, A., & Eden, L. (2010) highlighted that research data collection is subject to numerous limitations, including common method biases. These biases appear when respondents' differing interpretations lead to discrepancies in responses. Efforts have been made to incorporate components that have been employed by several researchers in the past in order to alleviate this limitation.

The study's population consists of 553,200 employed individuals in Mauritius. Mauritius Statistics provided the data on the number of employed persons in Mauritius. When choosing the sample size, much thought must be given. Raosoft was utilised to calculate the sample size of 384 respondents, which forms the basis of this study. Mauritius was chosen as a case study for data collection because it is a developing country that has experienced numerous environmental problems. Mauritius depends strongly on international trade. If not accompanied by policies that protect their environment, international trade can then result in the depletion of their natural resources. Peatthie et al. (2005) highlighted that both increased consumer awareness of environmental issues and more environmentally friendly product practices are necessary. The concept of "green marketing" is still relatively new and in its early stage, according to both marketer and consumers. As a result, hardly much research has been done on the topic, and the literature in this area is scarce.

The current study used convenience sampling to select participants based on their availability and willingness to respond, rather than randomly selecting samples from the entire population as would have been feasible given that the study's focus is on consumer buying behaviour in Mauritius. Convenience sampling can be advantageous for effectively reaching a larger range of respondents, even though it can introduce some bias. Non-response bias issues were probably going to arise. To address this issue, a Google Form was emailed to respondents who freely agreed to take part in the study. The online survey forms were distributed to various offices and small businesses.384 questionnaires were circulated, and 290 of them were returned fully filled and deemed suitable for analysis. Therefore, 76% of respondents responded overall.

Several methods were used to analyse the gathered data in the Statistical Package for Social Sciences. The Cronbach's Alpha test was initially used to assess the scales' reliability and validate the factors' internal consistency. The strength and type of the relationships between each of the study's variables were then examined using the correlation and regression procedures. The application of linear regression analysis helped in the analysis of Mauritians' perceptions of green marketing strategies affect their purchasing decisions.

Reliability and Validity

The study's validity and reliability are important in both qualitative and quantitative research. Strong reliability and validity guarantee that the conclusions are consistent and fairly depict the data gathered (Creswell & Poth, 2018). Online surveys with a single response limit were used to collect data for this purpose. Additionally, factor analysis was performed to verify the validity of the scale, and a Cronbach's Alpha test was utilised to assess the scale's reliability.

Table 3.1: Cronbach Alpha Testing

	N of items	Cronbach's Alpha
Green Advertising	5	0.655
Eco-Labeling	5	0.974
Green Branding	5	0.736
Consumer buying behaviour	8	0.793
Environmental Knowledge	5	0.790
Overall Scale	28	0.793

As the Cronbach's Alpha value for the overall scale is higher than 0.7 and for individual dimensions it is higher than 0.6, the minimum standards set by Bryman and Bell (2015) to confirm the reliability of scale, the results shown in table 3.1 demonstrate that both the overall scale and all of its individual dimensions are reliable to use in this research.

ISSN: 3048-5320 (Online)

Since they have a substantial impact on the study's overall quality and integrity, ethical considerations in research are important (Mertens, 2014). The current study required gathering data from members of the working population, which made it necessary to comply with ethical criteria. The information gathered has been kept confidential by not revealing the respondents' identity, and the data has been saved in an SPSS data file. Furthermore, only respondents who willingly agreed to participate completed the questionnaires.

The use of a convenience sample technique is significantly limited by the time constraints associated with data collecting. This indicates that there is little chance that the data set is representative of Mauritius as a whole. Another drawback is that, while environmental knowledge has been taken into account in the study's analysis of the relationship between green marketing and consumer purchasing behaviour, other factors such as environmental concerns and environmental consciousness have not been taken into account, despite the fact that they may be just as equally crucial in comprehending consumer purchasing behaviour for green products.

Results and Analysis

Demographic Analysis

These demographics were used only as a guide for determining the total composition of the sample.

Table 4.1: Demographic Analysis

		N	%
Gender	Male	181	62.4
	Female	109	37.6
Age	18-25	34	11.7
	26-35	77	26.6
	36-45	64	22.1
	Above 46	115	39.7
Occupation	Employed	151	52.1
	Self-Employed	66	22.8
	Part Timer	43	14.8
	Internship	30	10.3
Education	School Certificate	26	9
	Higher School Certificate	11	3.8
	Diploma	59	20.3
	Bachelor’s Degree	148	51
	Master’s Degree	29	10
	Doctorate	17	5.9

The demographic data of the study sample give valuable insights. The gender gap in the sample may affect green marketing techniques since men (62.4%) make up a higher share than women (37.6%). This is because men and women may respond differently to environmental messaging and prioritise different sustainable products (Laroche, Bergeron, & Barbaro-Forleo, 2001). The highest age group is "above 46" (39.7%), followed by "26-35" (26.6%) and "36-45" (22.1%). Older consumers may view environmental issues more broadly than younger consumers, which could influence their purchasing decisions and attitudes towards green products. 52.1 percent of participants are employed, with self-employed individuals ranking second (22.8%). The purchase decision made by a person can be influenced by their work. While self-employed individuals may integrate green practices into their businesses, employed individuals may have greater disposable income to purchase high end eco-friendly products (Ramdhony et al., 2012). The majority of participants (51%) held a bachelor’s degree whereas (20.3%) held a diploma. Higher educated consumers are more likely to grasp environmental issues and purchase green items since they are typically more aware of and concerned about them (Matthes et al., 2014).

Descriptive Analysis

Table 4.2: Descriptive statistics

 ISSN: 3048-5320 (Online)

	N	Mean	Std. Deviation
Green Advertising	290	1.9090	.64006
Eco-Labeling	290	3.8021	1.35927
Green Branding	290	2.0848	.74247
Green Marketing	290	2.2841	.42603
Environmental Knowledge	290	2.0745	.77609
Consumer Buying Behaviour	290	1.8254	.60497

The mean and standard deviations of the descriptive statistics for each of the dimensions employed in this study are shown in Table n. Nearly all of the study's variables have mean values that are less than 3.0, meaning that sample respondents' answers generally agree. According to Gupta and Gupta (2011), low standard deviation values show that the data points are closely packed around the mean, which typically suggests a normal distribution and homogeneity in the responses. Sustaining consistency is necessary to ensure the reliability and validity.

Correlation Analysis

Table 4.3 Validity Analysis Using Pearson Correlation

	Green Advertising	Eco-Labeling	Green Branding	Environmental Knowledge	Consumer Buying Behaviour	Green Marketing
Green Advertising	1	-.245**	.483**	.213**	.403**	.512**
Eco-Labeling	-.245**	1	-.201**	-.141*	-.232**	.301**
Green branding	.483**	-.201**	1	.345**	.481**	.633**
Environmental Knowledge	.213**	-.141*	.345**	1	.550**	.633**
Consumer Buying Behaviour	.403**	-.232**	.481**	.550**	1	.710**
Green Marketing	.512**	.301**	.633**	.633**	.710**	1
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

A correlation analysis has been carried out between all dimensions of the study in order to check the assumptions of multicollinearity before running a regression analysis on variables. Collinearity statistic (Appendix spss), Tolerance is more than 0.1 which indicate that multicolinearity is not a problem.

The correlation coefficients and significance levels of different green marketing-related factors are shown in the table. Asterisks indicate significance levels. Each correlation coefficient shows the direction and intensity of the association between two variables. For example, 0.0245** indicates that the association between Eco-Labeling and Green Advertising is -0.245 at a significance level of $p < 0.01$. This indicates that the likelihood that this

 ISSN: 3048-5320 (Online)

negative association is the result of random variation is less than 1%. The correlation coefficient between Green Branding and Consumer Buying Behaviour is 0.481, indicating a significant positive link with high statistical confidence, at a significance level of $p < 0.01$ (0.481**). Eco-Labeling and Environmental Knowledge have a weak negative association (-0.141) with a statistically acceptable significance level of $p < 0.05$ (-0.141*). This correlation has less than a 5% likelihood of occurring by chance.

Regression Analysis

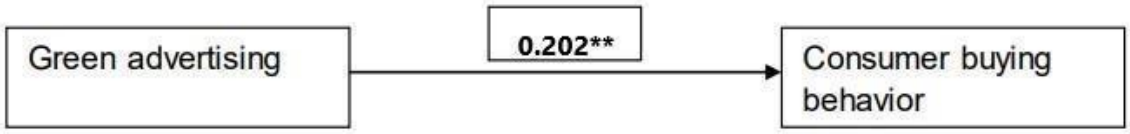
Table 4.4: Regression Statistics Between Three Dimensions Of Green Marketing And Consumer Buying Behavior

	Beta	t	Sig	VIF
Green Advertising	.202	3.469	.001	1.343
Eco-Labeling	-.110	-2.118	.035	1.074
Green Branding	.361	6.276	.000	1.316

Dependent Variable: Consumer Buying Behaviour, $p < 0.01$

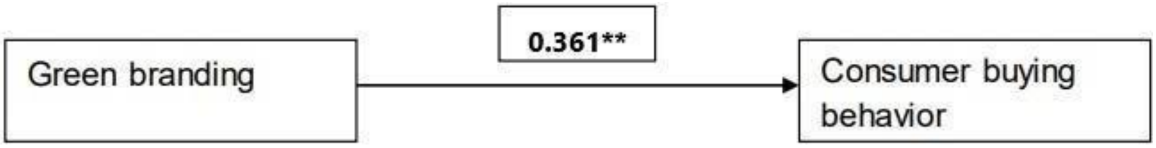
The beta coefficient is 0.202, Sig is 0.001 and t-value is 3.469. This finding is statistically significant since $p < 0.01$, providing compelling evidence that green advertising influences consumer-purchasing decisions in a positive way. This leads to the acceptance of H1 (d): In Mauritius, customer purchasing behaviour for environmentally friendly products is significantly positively correlated with green advertising. As a result, the regression model that follows can be formed:

Figure 4.1: Green advertising regression model



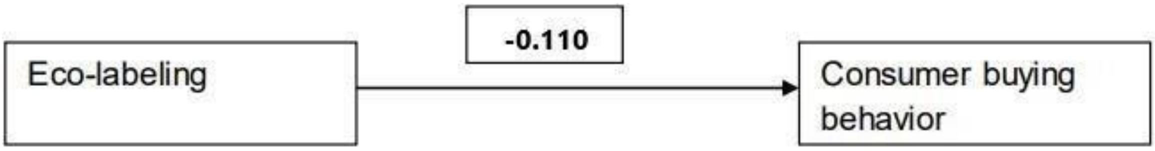
The beta coefficient is 0.361, Sig is 0.000 and t-value is 6.276. This finding is statistically significant since $p < 0.01$, providing compelling evidence that green branding influences consumer-purchasing decisions in a positive way. This leads to the acceptance of H1 (c): In Mauritius, customer purchasing behaviour for branded green items is positively correlated with green branding. As a result, the regression model that follows can be formed:

Figure 4.2: Green branding regression model



The negative correlation between consumer buying behaviour and the beta coefficient of -0.110 is evident. The sig is 0.035 and the t-value is -2.118. This result is statistically significant ($p < 0.05$), albeit not as strongly as the others, showing a negative influence of Eco-Labeling on customer purchasing behaviour. To reject the null hypothesis at the 0.01 level, we require a pvalue less than 0.01 if we apply the sig 0.01 at $p < 0.01$. This indicates that there is insufficient data to draw the conclusion that a meaningful relationship exists. This lead to the rejection of H1 (b): In Mauritius, consumer purchasing behaviour for green products is significantly positively correlated with eco-labeling. As a result, the regression model that follows can be formed:

Figure 4.3: Eco labeling regression model



Mediation analysis

This part deals with analyzing the influence of the mediator in the relationship between independent and dependent variable. The mediation paradigm proposed by Baron and Kenny (1986) has been used in this context. For this reason, an analysis has been conducted on the direct and indirect effects of green marketing on consumer purchasing behaviour.

Table 4.5: Linear Regression Analysis of Green Marketing on Consumer Buying Behavior

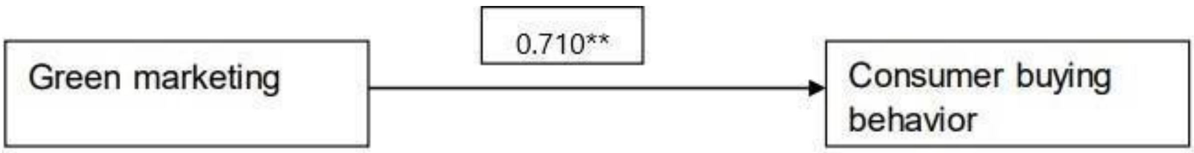
	Beta	*Significance*
Green Marketing	0.710	0.000
R^2	0.504	
F	292.815	

Dependent variable = Consumer buying behavior, $p<0.01$

The correlation coefficient of 0.710 signifies the degree and orientation of the relationship between green marketing and consumer buying decision. The significant positive connection showed by a β of 0.710 indicating that there will likely be an increase in consumer purchasing behaviour towards green products as green marketing strategies increase. R^2 being 0.504, green marketing accounts for 50.4% of the variation in consumer purchasing behaviour. The regression model's overall significance is tested using the F-statistic. The statistical significance of the model is indicated by its value of 292.815. Furthermore, the statistical significance of the correlation between green marketing and consumer purchasing behaviour at the 1% level is showed by the p-value (0.000), which is less than 0.01. It results in H1 (a) being accepted.

Accordingly, the following regression model can be formed:

Figure 4.4: Green Marketing Regression Model



ISSN: 3048-5320 (Online)

Table 4.6: Regression Analysis of Environmental Knowledge on Consumer Buying Behaviour

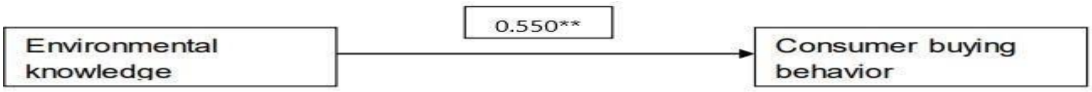
	Beta	*Significance*
Environmental Knowledge	0.550	0.000
R^2	0.302	
F	124.860	

Dependent variable = Consumer buying behavior, p<0.01

The significant positive connection showed by a β of 0.550 indicating that there will likely be an increase in consumer purchasing behaviour towards green products as environmental knowledge increases. R^2 being 0.302, environmental knowledge accounts for 30.2% of the variation in consumer purchasing behaviour. The statistical significance of the model is indicated by its value of 124.860. Furthermore, the statistical significance of the correlation between environmental knowledge and consumer purchasing behaviour at the 1% level is showed by the p-value (0.000), which is less than 0.01. It results in H2 being accepted.

Accordingly, the following regression model can be formed:

Figure 4.5: Environmental Knowledge Regression Model



Mediation Analysis

Table 4.7: Mediation analysis

Predictor	Step 1	Step 2	Sig.
Green Marketing	0.710	0.604	0.000
Environmental Knowledge		0.168	0.002
R^2	0.504		
F	292.815		
R^2		0.521	
F		156.119	

Following Preacher and Hayes (2004), a mediation analysis was performed to analyze whether environmental knowledge acts as a mediator in the relationship between green marketing and consumer buying behavior. Previous results indicated that the direct relationship of green marketing with consumer buying behavior is B = 0.710, p < 0.01, but in the presence of environmental knowledge, the relationship between green marketing and environmental knowledge is B = 0.604, p < 0.01. The fact that value B in the presence of environmental knowledge decreases (0.604 compared to 0.710) indicate that environmental knowledge slightly moderates the strength of the relationship between green marketing and consumer buying behavior. Green marketing has a substantial impact on consumer buying behavior both generally and when environmental knowledge is considered. Thus, H3 is accepted.

Table 4.8: Hypotheses Status

Hypotheses	Status
H1 (a): In Mauritius, consumers purchasing behaviour for green products is significantly positive correlated with green marketing.	Accepted
H1 (b): In Mauritius, consumer purchasing behaviour for green products is significantly positively correlated with eco-labeling.	Rejected
H1 (c): In Mauritius, customer purchasing behaviour for branded green items is positively correlated with green branding.	Accepted
H1 (d): In Mauritius, customer purchasing behaviour for environmentally friendly products is significantly positively correlated with green advertising.	Accepted
H2: There is a significant positive correlation between consumer purchasing behaviour and environmental understanding.	Accepted
H3: The relationship between green marketing and consumer purchasing behaviour is mediated by environmental knowledge.	Accepted

Discussion

Under the mediating role of environmental knowledge, the overall results of examining the relationship between green marketing (using its dimensions of green branding, eco-labeling, and green advertising) and consumer buying behaviour showed that eco-labeling has no significant relationship with consumer buying behaviour, but green branding and green advertising both have a significant positive relationship with consumer buying behaviour. The eco-labeling results are consistent with Leire and Thidell (2005) research, revealing that while consumers are aware of eco-labeling, it does not always impact their buying decisions and D'Souza et al. (2007) finding, revealed that confusion and mistrust-surrounding eco-labels can greatly influence the effectiveness of eco-labels in promoting to green consumer behavior.

Moreover, green advertising and green branding are strong predictor of consumer buying behavior since they have a greater impact on dependent variable. These results are consistent with Chen (2010) research, which showed that a strong green brand image, coupled with green satisfaction and green trust, significantly contributes to the overall value and perception of the brand in the eyes of consumers. Additionally, the result for green advertising support Mohamed

(2016) study, which revealed that marketing tactics, such as green advertising, have a significant effect on customers' purchasing decisions. Thus, in the context of Mauritius, can be claimed that green advertising (0.202**) can be increasingly used to influence consumer buying behavior while people are less concerned eco-labeling.

The impact of green marketing on consumer buying behavior in the presence of the environmental knowledge is positive. However, it slightly affect the strength of the relationship between consumer buying behavior and green marketing. It can also be concluded that when consumers are well acquainted about green marketing strategies, their behavior is less likely to be influenced by green marketing efforts.

Here, the concept used by Pickett-Baker and Ozaki (2008) for green consumers as confused consumers can be applied. They discover that although customers' awareness of environmental issues was rising, many consumers struggled to understand what constitutes a green product. Similarly, according to Vermeir, I., and Verbeke, W. (2006), green marketing can successfully influence consumers' beliefs and perceptions about the environment, but it does not always translate in actual green product purchases.

These results are consistent with some of previous researches'(Chan and Lau.,2002, Chen.,2010 & Mohamed.,2016) which have pointed to the fact that green marketing efforts through green advertising, green branding and eco-labeling are helpful to influence the behavior of consumers, while possession of environmental knowledge adds to their decision making regarding green products. However, these results are not in line with conclusions drawn by some other researches, like Ottman (2011) who argued that due to a lesser degree of environmental knowledge by consumers in developing countries, they are less likely to be influenced by green marketing initiatives. In this way, the current study has more consistency with the research conducted in developing countries. In short, green marketing significantly influences consumers buying decision in Mauritius but there is room for more in depth research in Mauritius.

Conclusion, Recommendations, and Future Research

The purpose of the study was to close the knowledge gap in the literature about the effects of various green marketing initiatives on customer purchasing decisions both with and without environmental awareness. In this context, the following significant research questions are addressed:

- What effect does green marketing in the form of green advertising, eco-labeling and green branding have on Mauritian consumer buying behavior?
- What is the level of environmental awareness among Mauritian consumers?
- Is there a mediator between green marketing and consumer purchasing behavior that is environmental knowledge?

Since most of the sample consisted of respondents with a high level of education, the research's findings suggest that Mauritians have a high level of environmental understanding on average. Regarding the second research question, the results show that green marketing strategies like green branding and green advertising have a substantial positive influence on consumers buying behaviour. Additionally, environmental awareness significantly influences the purchasing decisions of consumers. A portion of the relationship between consumer purchasing behaviour and green marketing is mediated by environmental knowledge. These findings are consistent with earlier research carried out in Mauritius. (Ramdhony et al., 2012, Arshad et al., 2014).

The research has yielded significant insights into consumer buying behaviour in both the presence and absence of environmental knowledge. These findings are useful in understanding Mauritius consumers' purchasing behaviour. Marketing strategies and regulations can be adjusted appropriately to influence them.

Recommendation

For marketers, this study has significant applications. It has been discovered that using green advertising to influence customer purchasing behaviour works well. Marketers ought to be aware of this dimension as a result. On the other hand, Mauritian customers who are knowledgeable about the environment are less likely to be impacted by green marketing campaigns. This could possibly be due to the fact that green marketing campaigns do not always align with real environmental conservation. As a result, marketers should re formulate their green marketing strategies. They have to make their products more environmentally friendly in this sense to be able to create a positive perception in the mind of their consumers. Second, as green advertising is the most reliable source for influencing customer purchasing decisions, they ought to focus more on it. They also need to improve the ecological footprint of their products. As customers' awareness of environmental issues grows, they start to doubt green marketing campaigns and think they are dishonest. In light of this, making genuine attempts to create environmentally friendly items will help influence consumer purchasing decisions both now and in the future.

Study Limitations and Future Research

The impact that customers' perceptions of green marketing have on their purchasing decisions has been thoroughly investigated in the current study. Due to time constraint, the study has concentrated on a non-random sample from the demographic. Second, it has only addressed just a part of green marketing. The current study has been constrained due to these issues. To better understand Mauritius's response, future research can be conducted out with a larger sample size and equitable participation from the demography. It can measure more variables related to green marketing initiatives in order to examine how customers respond to various aspects of green marketing.

ISSN: 3048-5320 (Online)

References:

Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology & Health, 26*(9), 1113-1127.

Alevizou, P. J., Caroline, C. J., & McDonald, S. (2015). The well(s) of knowledge: the decoding of sustainability claims in the UK and in Greece. Sustainability, 7(7), 8729- 8747.

Al-Swidi, A.K., Al-Hakimi, M.A., Al-Sarraf, J., & Al koliby, I.S. (2024). Innovate or perish: can green entrepreneurial orientation foster green innovation by leveraging green manufacturing practices under different levels of green technology turbulence? *Journal of Manufacturing Technology Management*, 35(1), 74-94.

Arshad, R., Mahmood, U., Siddiqui, H., & Tahir, A. (2014). An Empirical Study about Green Purchase Intentions. Journal of Sociological Research, 5(1).

Awan, A. G., & Shahid, M. (2015). Impact of green marketing on purchasing behavior of educated customers: A case study of Multan Region-Pakistan. Journal of Global Economics, Management and Business Research, 4(2), 95-101.

Boykoff, M. T., & Boykoff, J. M. (2004). Balance as bias: Global warming and the US prestige press. Global Environmental Change, 14(2), 125-136.

Bryman, A., & Bell, E. (2015). Business research methods. Oxford University Press.

Chan, R. Y. K., & Lau, L. B. Y. (2002). Explaining green purchasing behavior: A cross-cultural study on American and Chinese consumers. Journal of International Consumer Marketing, 14(2-3), 9-40.

Chan, R. Y. K., Lau, L. B. Y., & Lee, S. F. (2008). Antecedents of green purchases: A survey in China. Journal of Consumer Marketing, 25(5), 281-293.

Chang, H. H., & Chen, S. W. (2012). The impact of corporate environmental ethics on competitive advantage: The mediation role of green innovation. *Journal of Business Ethics, 104*(3), 361-370.

Chang, S. J., Van Witteloostuijn, A., & Eden, L. (2010). From the Editors: Common Method Variance in International Business Research. *Journal of International Business Studies*, 41(2), 178-184.

Chen, T. B., & Chai, L. T. (2010). Attitude towards the environment and green products: Consumers' perspective. Management Science and Engineering, 4(2), 27-39.

Chen, Y.-S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. Journal of Business Ethics, 93(2), 307-319.

Cherian, J., & Jacob, J. (2012). Green marketing: A study of consumers‘ attitude towards environment friendly products. Asian Social Science, Published by Canadian Center of Science and Education, 8(12), 117-126.

Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.

Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed.). SAGE Publications.

Creswell, J. W., & Poth, C. N. (2017). Qualitative inquiry and research design: Choosing among five approaches. Sage publications.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage Publications.

Delmas, M. A., & Grant, L. E. (2014). Eco-Labeling Strategies and Price-Premium: The Wine Industry Puzzle. *Business & Society, 53*(1), 6-44.

Delmas, M. A., & Montes-Sancho, M. J. (2011). US state policies for renewable energy: Context and effectiveness. *Energy Policy*, 39(5), 2273-2288.

Delmas, M. A., Nairn-Birch, N., & Balzarova, M. (2013). Choosing the right eco-label for your product. *MIT Sloan Management Review*, 54(4), 10–12.

D'Souza, C., Taghian, M., & Khosla, R. (2007). Examination of environmental beliefs and its impact on the influence of price, quality and demographic characteristics with respect to green purchase intention. *Journal of Targeting, Measurement and Analysis for Marketing*, 15(2), 69-78.

D'Souza, C., Taghian, M., & Lamb, P. (2007). An empirical study on the influence of environmental labels on consumers. *Corporate Communications: An International Journal, 12*(2), 162-173.

D'Souza, C., Taghian, M., Lamb, P., & Peretiatko, R. (2007). Green decisions: Demographics and consumer understanding of environmental labels. International Journal of Consumer Studies, 31(4), 371-376.

D'Souza, C., Taghian, M., Lamb, P., & Peretiatkos, R. (2006). Green products and corporate strategy: An empirical investigation. *Society and Business Review, 1*(2), 144-157. Environmentally-friendly trade policies to shape Mauritius' future. Jaime de Melo(2023) Grebmer, C., & Diefenbach, S. (2020). The challenges of green marketing communication: Effective communication to environmentally conscious but skeptical consumers. Designs, 4(3), 25.

Grimmer, M., & Bingham, T. (2013). Company environmental performance and consumer purchase intentions. Journal of Business Research, 66(10), 1945–1953.

Grunert, K. G., Hieke, S., & Wills, J. (2014). Sustainability labels on food products: Consumer motivation, understanding and use. Food Policy, 44, 177-189.

Gungah, V., & Boodhoo, M. (2014). Environmental awareness and attitudes among residents in Mauritius. *International Journal of Environment and Sustainability, 3*(1), 18-26.

Gupta, S. P., & Gupta, M. P. (2011). *Business Statistics*. Sultan Chand & Sons.

Hartmann, P., & Apaolaza, V. (2006). Green advertising and environmentally responsible consumer behavior: The role of attitudes and social influences.

Hartmann, P., & Apaolaza-Ibáñez, V. (2013). Consumer attitude and purchase intention toward green energy brands: The roles of psychological benefits and environmental concern. *Journal of Business Research, 66*(9), 1231-1238.

Hartmann, P., Ibáñez, V. A., & Sainz, F. J. F. (2005). Green branding effects on attitude: Functional versus emotional positioning strategies. Marketing Intelligence & Planning, 23(1), 9-29.

Hassan, L. M., Shiu, E., & Shaw, D. (2016). Who says there is an intention-behaviour gap? Assessing the empirical evidence of an intention-behaviour gap in ethical consumption. *Journal of Business Ethics, 136*(2), 219-236.

Huang, Y., Yang, M., & Wang, Y. (2014). Effects of green brand on green purchase intention. Marketing Intelligence & Planning, 32(3), 250-268.

Jansson, J., Marell, A., & Nordlund, A. (2010). Green consumer behavior: Determinants of curtailment and eco-innovation adoption. *Journal of Consumer Marketing, 27*(4), 358-370.

Jarvi, J. (2010). The behaviour of Finnish consumers towards eco-labelled products Case: SGroup Oyj. Thesis on Degree Programme in Business Management, Laurea University of Applied Sciences, Laurea Leppävaara

Joshi, Y. (2016). Investigating the influence of spirituality, environmental concern and ecological knowledge on consumers' green purchase intention. Purushartha – A Journal Of Management, Ethics And Spirituality, 9(2), 54-63.

Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behavior and future research directions. *International Strategic Management Review,* 3(1-2), 128-143.

Juwaheer, T. D., Pudaruth, S., & Noyaux, M. M. (2012). Analysing the impact of green marketing strategies on consumer purchasing patterns in Mauritius. World Journal of Entrepreneurship, Management and Sustainable Development, 8(1), 36-59.

Kang, J., & Park, J. (2014). The role of social norms in green product purchasing: A case study of South Korea. *Journal of Business Ethics, 125*(2), 323-336.

Kim, J., & Choi, Y. (2017). The effect of green marketing on green brand equity: The roles of green brand image, green satisfaction, and green trust. *Sustainability, 9*(1), 1-13.

Kollmuss, A., & Agyeman, J. (2002). Mind the gap: why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research, 8*(3), 239-260.

Kumar, R. (2019). *Research Methodology: A Step-by-Step Guide for Beginners* (5th ed.). SAGE Publications.

Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting Consumers Who Are Willing to Pay More for Environmentally Friendly Products. *Journal of Consumer Marketing*, 18(6), 503-520.

Lee, K., & Park, E. (2009). Understanding the antecedents of green purchase intention among young consumers: A study of developing and non-developing countries. Journal of Business Ethics, 90(3), 265-278.

Lee, M. (2012). Early Stages of Green Marketing: A South Korean Perspective. *International Journal of Consumer Studies*, 36(3), 259-267.

Leire, C., & Thidell, A. (2005). Product-related environmental information to guide consumer purchases: a review and analysis of research on perceptions, understanding and use among Nordic consumers. Journal of Cleaner Production, 13(10-11), 1061- 1070.

Leire, C., & Thidell, A. (2005). Product-related environmental information to guide consumer purchases: a review and analysis of research on perceptions, understanding and use among

Leonidou, C. N., Katsikeas, C. S., & Morgan, N. A. (2013). "Greening" the marketing mix: Do firms do it and does it pay off? *Journal of the Academy of Marketing Science*, 41(2), 151-170.

Leonidou, C. N., Leonidou, L. C., & Kvasova, O. (2011). Green advertising: Antecedents and consequences of its effectiveness. *Journal of Advertising, 40*(2), 97-112.

Lin, C. Y., & Huang, Y. C. (2017). Investigating the effects of green advertising on consumer behavior. *Sustainability*, *9*(9), 1-15.

Matthes, J., & Wonneberger, A. (2014). The skeptical green consumer revisited: testing the relationship between green consumerism and skepticism toward advertising. Journal of Advertising, 43(2), 115-127.

McDonald, S., & Oates, C. J. (2006). Sustainability: Consumer perceptions and marketing strategies. Business Strategy and the Environment, 15(3), 157-170.

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative Research: A Guide to Design and Implementation* (4th ed.). Jossey-Bass.

Mertens, D. M. (2014). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (4th ed.). Sage Publications.

Mishra, P., & Sharma, P. (2010). Green marketing in India: Emerging opportunities and challenges. Journal of Engineering, Science & Management Education, 3, 9–14.

Mohamed, S. N. S. (2016). The factors of practising green packaging adoption among food industry around Melaka. Project report. Universiti Teknikal Malaysia Melaka UTeM, Melaka, Malaysia.

Neuman, W. L. (2014). *Social Research Methods: Qualitative and Quantitative Approaches* (7th ed.). Pearson.

Nordic consumers. Journal of Cleaner Production, 13(10-11), 1061- 1070.

Olofsson, A., & Öhman, S. (2015). General beliefs and environmental concerns, Transatlantic comparisons. Environment and Behavior, 38(6), 768-790.

Ottman, J. A. (2011). *The new rules of green marketing: Strategies, tools, and inspiration for sustainable branding.* Berrett-Koehler Publishers.

Ottman, J. A., Stafford, E. R., & Hartman, C. L. (2006). Avoiding green marketing myopia:

Peattie, K. (2001). Golden goose or wild goose? The hunt for the green consumer. *Business Strategy and the Environment, 10*(4), 187-199.

Peattie, K., & Crane, A. (2005). Green marketing: legend, myth, farce or prophesy? *Qualitative Market Research: An International Journal, 8*(4), 357-370.

Pickett, G. M., Kangun, N., & Grove, S. J. (1995). An examination of the conservative consumer: implications for public formation policy in promoting conservation behaviour. In: Environmental Marketing: Strategies, Practice, Theory, and Research, 77-99. New York, NY: The Haworth Press, Inc.

Pickett-Baker, J., & Ozaki, R. (2008). Pro-environmental products: marketing influence on consumer purchase decision. *Journal of Consumer Marketing, 25*(5), 281-293.

Polonsky, M. J., & Rosenberger, P. J. (2001). Reevaluating green marketing: A strategic approach. *Business Horizons*, *44*(5), 21-30.

Polonsky, M. J., Grau, S. L., & Garma, R. (2010). The new greenwash? Potential marketing problems with carbon offsets. *International Journal of Business Studies*, 18(1), 49-54.

Polonsky, M.J. (2011). Transformative green marketing: Impediments and opportunities. *Journal of business research*, *64*(12), pp.1311-1319.

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717-731.

Ramdhony, D., & Oogarah-Hanuman, V. (2012). An assessment of environmental attitudes among consumers in Mauritius. *World Journal of Entrepreneurship, Management and*

Rashid, N. A. (2009). Awareness of eco-label in Malaysia‘s green marketing initiative. International Journal of Business and Management, 4(8), 132–141.

Rex, E., & Baumann, H. (2007). Beyond ecolabels: What green marketing can learn from conventional marketing. Journal of Cleaner Production, 15(6), 567-576.

Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research Methods for Business Students* (8th ed.). Pearson.

Sekaran, U., & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach* (7th ed.). Wiley.

Singh, J., & Verma, P. (2016). Factors Influencing Indian Consumers' Actual Buying Behaviour towards Organic Food Products. *Journal of Cleaner Production*, 134, 563-577

Singh, P. B., & Pandey, K. K. (2012). Green marketing: Policies and practices for sustainable development. Integral Review -A Journal of Management, 5(1), 22-30.

Smith, A., & Jones, B. (2015). Eco-labeling and consumer behavior: Evidence from the United

Smith, J., Brown, P., & Johnson, K. (2010). The Influence of Green Marketing on Consumer Purchasing Behavior: A Canadian Perspective. *Journal of Environmental Marketing*, 15(2), 45-60.

Smith, S., & Paladino, A. (2010). Eating clean and green? Investigating consumer motivations towards the purchase of organic food. *Australasian Marketing Journal*, *18*(2), 93-104.

States. Journal of Environmental Economics and Management, 30(2), 112-125.

***Sustainable Development, 8*(2/3), 146-159.**

Szabo, E., Jozsa, L., & Csutora, M. (2015). The role of eco-labeling in shaping consumer behavior: A case study from Europe. *Journal of Environmental Management, 161*, 255-262. Trochim, W. M. K. (2006). *The Research Methods Knowledge Base* (2nd ed.)

Varkaris, E., & Neuhofer, B. (2017). Corporate environmentalism: Antecedents and influence of green washing. Journal of Business Ethics, 151(3), 673-689.

Vermeir, I., & Verbeke, W. (2006). Sustainable food consumption: Exploring the consumer "attitude–behavioral intention" gap. Journal of Agricultural and Environmental Ethics, 19(2), 169-194.

Wahid, N. A., Rahbar, E., & Shyan, T. S. (2011). Factors influencing the green purchase behaviour of Penang environmental volunteers. International Business Management, 5(1), 3849

Wang and Li (2022). The impact of Green Advertising in formation quality perception on consumers's response an empirical analysis

Ways to Improve Consumer Appeal for Environmentally Preferable Products. *Environment*: *Science and Policy for Sustainable Development*, 48(5), 22-36.

Xie, Y., & Zhao, L. (2014). The influence of eco-labeling on consumer behavior: A study in China. Journal of Sustainable Marketing, 21(3), 45-58.

ISSN: 3048-5320 (Online)

A Study on Psychological Safety at Workplace With Reference to BFSI Sector in Pune City, India

Dr. Anjum Usama Sayyad
Assistant Professor,
Poona Institute of Management Sciences and Entrepreneurship, K. B. Hidayatullah Rd, Camp, Pune -01 Mobile No: 9822941219
dranjumsayyad@gmail.com

Dr. Sheena Abraham,
Assistant Professor,
Poona Institute of Management Sciences and Entrepreneurship, K. B. Hidayatullah Rd, Camp, Pune -01 Mobile No: 9881736413
sheena.abrahampimse@gmail.com

Abstract
According to Maslow's need hierarchy theory, humans need a minimum number of needs for survival and go up achieving self-actualization. Social Scientists have now started considering Psychological Safety as one of the basic needs and a prerequisite for the people to perform their best in all aspects of life including the workplace. Psychological Safety is the absence of interpersonal fear, the feeling of being psychologically safe thereby allowing people to perform their best without the negative pressure at the workplace from teams, colleagues or seniors. This research presented by the authors focuses on the study of Psychological Safety in the BFSI sector in Pune City, India. The researchers have gathered data from a random sample of 220 employees from the BFSI sector. The main objective of the study was to statistically prove the relation between the Independent Variables; Affirmation of Competencies, Admiration of Ideas, Speak up culture and Team Behaviour on Psychological Safety (Dependent Variable) . The results were analysed using regression and ANOVA between the independent and dependent variables.

Keywords: Psychological Safety; Affirmation of employees competencies; Admiration of employees ideas; Speak up culture; Team Behaviour; BFSI

Introduction to the Study

In the lively metropolitan area of Pune City, the concept of Psychological Safety has emerged as a cornerstone of organisational success in the BFSI sector. As financial institutions compete for market dominance and technological innovation reshaping industry landscapes, the need to prioritize the Psychological Safety of employees has become more prominent and important at the workplace.

Psychological Safety means taking interpersonal risks, speaking up, admiration and appreciation of the employee's ideas, to openly surface without the apprehension and fear of the repercussions. Psychological Safety nurtures a work environment where

employees feel empowered to voice their opinions, share ideas and take calculated risks with absence of reprisal. In the high-stakes world of banking, financial services and insurance where every decision carries weight and the margin for error is slim, fostering such an atmosphere is not just beneficial but imperative.

BFSI sector in general is characterised by relentless pursuit of excellence along with innovation where psychological Safety serves as a mechanism for creativity, innovation and performance. According to an article titled "2023 Retrospective: Transformative Trends in India's BFSI Sector" by Srajan Agarwal, dated December 18, 2023, the Indian banking sector in FY 2022-23 boasted total assets of 138.38 lakh crore in the public sector and 83.39 lakh crore in the private sector. Public sector banks accounted for 58.81% of the total banking assets, including foreign banks. From policy reforms to achieving milestones in digital transactions, the BFSI sector has played a pivotal role in driving the country's economic recovery and growth. Hence, the researchers have endeavoured to examine and understand the concept of Psychological Safety in the workplace specifically within the BFSI sector in Pune city.

Literature Review

Amy Edmondson's groundbreaking work on psychological safety began in 1999 with her inspirational research on the critical role of psychological safety in team dynamics. Her book titled, "The Fearless Organization" 2000, further lay emphasis on the significance thereby highlighting how fostering psychological safety enhances organizational success. Timothy Clark, since 2002, has contributed to this field by familiarizing the psychological safety continuum and later exploring cultural influences in 2016. In 1990 William Kahn's foundational concept of psychological empowerment paved the way for understanding the link between psychological safety and safety in the workplace, a theme that he continued to explore in 2017. Adam Grant's studies from

2007 onward have consistently shown how psychological safety promotes creativity and innovation, with ongoing research addressing its evolving dynamics in organizational settings. These researches over the time accentuate the continuous evolution and persistent relevance of psychological safety in not only enhancing team performance but also employee well-being across diverse workplace environments.

Studying psychological safety in the Banking, Financial Services and Insurance (BFSI) sector is crucial due to its impact on employee well-being, organizational effectiveness, employee competencies and organizational culture. In a sector characterized by high stress levels and stringent regulatory requirements, fostering psychological safety can significantly mitigate stress, improving mental health outcomes that enhance overall job satisfaction among employees. Moreover, a psychologically safe environment encourages open communication, innovation, and risk management, enabling organizations to adapt more effectively to market changes and customer demands. This in turn enriches customer trust and satisfaction, strengthens employee engagement, and reduces turnover rates. By prioritizing psychological safety, BFSI organizations not only cultivate a supportive workplace culture but also promote ethical behavior, compliance with regulations, and effective leadership practices, thereby fostering long-term organizational success and sustainability.

Terms used in the Study
This study is based on the four independent variables namely, Affirmation of Competencies, Admiration of ideas, Speak up culture and Team Behaviour whereas Psychological Safety is considered as the dependent variable. The meaning of these terms in the context of this paper is explained as follows.

Affirmation of Competencies
The literal definition of "affirmation" is expressions that convey affection, gratitude, and regard for someone else, while "competencies" refer to the capability to perform a task effectively or proficiently. Therefore, in the context of this research paper, it pertains to recognizing and valuing employee’s skills and abilities, ensuring efficient task execution.

Admiration of Ideas
Admiration encompasses a profound sense of appreciation and respect towards an individual or an object. This could involve endeavors aimed at cost reduction, time efficiency, or meeting quality benchmarks, ultimately contributing to the organization’s overarching goals.

Speak up Culture
A "speak up culture" characterizes a workplace ambiance where employees feel at ease expressing their thoughts, sharing ideas and voicing concerns without apprehension of reprisal. In the context of this paper, the researchers aim to investigate the prevalence of a speak up culture within the BFSI sector.

Team Behaviour
Team Behaviour arises from collaborative efforts, wherein the collective output of a team surpasses the mere sum of individual contributions. Investigating this independent variable is crucial for this study as it facilitates the examination of team learning dynamics and the cultivation of mutual consensus.

Objectives of the Study
The study aims to achieve the following objectives:

- To identify its influencing factors within the BFSI (Banking, Financial Services, and Insurance) sector in Pune City.
- To investigate the relationship between Affirmation of Employees' Competencies and Psychological Safety.
- To determine the impact of Admiration of Employees' Ideas on Psychological Safety.
- To evaluate the existence of a Speak-Up Culture and its effect on Psychological Safety.
- To assess the influence of Team Behavior on Psychological Safety in the BFSI sector.

Research Methodology
The study employs a descriptive research design to explore psychological safety within the BFSI sector in Pune City. The methodology includes:

Primary Data Collection: Data was collected using a structured questionnaire distributed through Google Forms.

Secondary Data Collection: The research also utilized scholarly journals, research articles, and authoritative websites for additional context and validation.

Data Analysis Techniques: The collected data was analyzed using Regression Analysis and ANOVA to test the hypotheses and identify significant relationships between variables.

Sampling Methodology
Sampling Technique: The study adopted a convenience sampling approach combined with random sampling to ensure diversity in respondents.

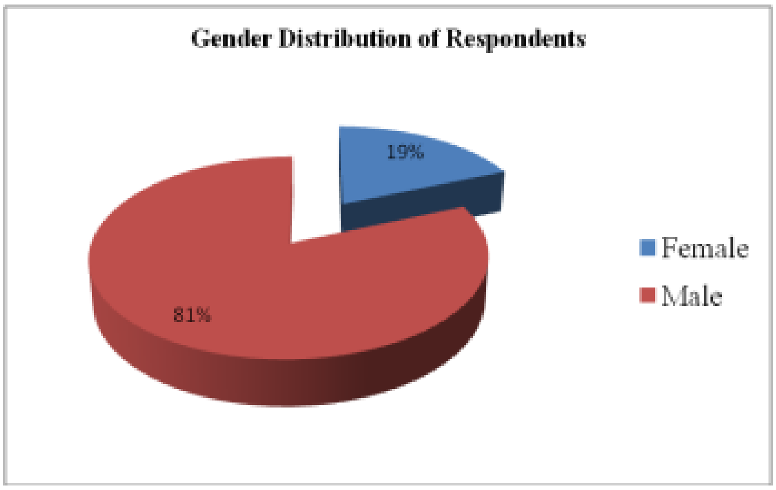
Population Focus: The research focused on employees working in the BFSI sector in Pune City.

Sample Size: A total of 220 respondents participated in the survey, providing insights into the factors affecting psychological safety in their workplace.

Statistical Analysis and Hypothesis Testing

Table 1: ***Gender Distribution of Respondents***

Gender	Count	Percentage
Female	41	18.64
Male	179	81.36
Total	**220**	**100**



Hypotheses 1

Null Hypotheses (H_o1): Affirmation of employee's competencies does not have any relation with psychological safety

Alternative Hypothesis (H_a1): Affirmation of employee's competencies has a relation with psychological safety

Table 2: Regression Coefficient

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the
1	.145 [a]	.021	.017	Estimate 2.56307

Interpretation:
Regression Coefficient is a measure of how strongly each Independent Variable predicts the Dependent Variable. R value is the correlation coefficient (.145) that represents the correlation between the observed and the predicted values of the dependent variables. R square shows how much variance in the Dependent Variable is being explained by the

Independent Variable. R square value of .021 would mean that the Independent Variable in the study can predict 21% of the variance in the Dependent Variable.

Table 3: P-value and ANOVA

ANOVA						
Model		Sum of	df	Mean Square	F	Sig.
1	Regression	30.808 Squares	1	30.808	4.690	.031 [b]
	Residual	1432.119	218	6.569		
	Total	1462.927	219			

Interpretation:
P-value/ Sig value: At 95% confidence interval or 5% level of the significance level the p-value in the above table is .031 which is less than 0.05. Therefore, the result is significant and we reject the null hypothesis.

Hypotheses 2

Null Hypotheses (H_o2): Admiration of employee's ideas does not have any relation with psychological safety

Alternative Hypothesis (Ha2): Admiration of employee's ideas has relation with psychological safety

Table 4: Regression Coefficient

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the
1	.119 [a]	.014	.010	Estimate 1.42490

Interpretation:
Regression Coefficient is a measure of how strongly each Independent Variable predicts the Dependent Variable. R value is the correlation coefficient (.119) that represents the correlation between the observed and the predicted values of the dependent variables. R square shows how much variance in the Dependent Variable is being explained by the Independent Variable. R square value of .014 would mean that the Independent Variable in the study can predict 14% of the variance in the Dependent Variable.

Table 5: P-value and ANOVA

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.310	1	6.310	3.108	.079[b]
	Residual	442.617	218	2.030		
	Total	448.927	219			

Interpretation:
P-value/ Sig value: At 95% confidence interval or 5% level of the significance level the p-value in the above table is .079 which is greater than 0.05. Therefore, the result is insignificant and we fail to reject the null hypothesis.

Hypotheses 3

Null Hypotheses (H_o3): Speak up culture does not have any relation with psychological safety

Alternative Hypothesis (H_a3): Speak up culture has relation with psychological safety

Table 6: Regression Coefficient

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.112 [a]	.013	.008	2.50818

Interpretation:
Regression Coefficient is a measure of how strongly each Independent Variable predicts the Dependent Variable. R value is the correlation coefficient (.112) that represents the correlation between the observed and the predicted values of the dependent variables. R square shows how much variance in the Dependent Variable is being explained by the

Independent Variable. R square value of .013 would mean that the Independent Variable in the study can predict 13% of the variance in the Dependent Variable.

Table 7: P-value after Regression Analysis and ANOVA

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	17.528	1	17.528	2.786	.097[b]
	Residual	1371.431	218	6.291		
	Total	1388.959	219			

Interpretation:
P-value/ Sig value: At 95% confidence interval or 5% level of the significance level the p-value in the above table is .097 which is greater than 0.05. Therefore, the result is insignificant and we fail to reject the null hypothesis.

Hypotheses 4

Null Hypotheses (H_o4): Team behaviour does not have any relation with psychological safety

Alternative Hypothesis (H_a4): Team behaviour has relation with psychological safety

Table 8: Regression Coefficient

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the
1	.014 [a]	.000	-.004	Estimate 3.24515

Interpretation:
Regression Coefficient is a measure of how strongly each Independent Variable predicts the Dependent Variable. R value is the correlation coefficient (.014) that represents the correlation between the observed and the predicted values of the dependent variables. R square shows how much variance in the Dependent Variable is being explained by the Independent Variable. R square value of .000 would mean that the Independent Variable in the study cannot predict any variance in the Dependent Variable.

Table 9: P-value after Regression Analysis and ANOVA

ANOVA						
Model		Sum of	df	Mean Square	F	Sig.
1	Regression	Squares.477	1	.477	.045	.832b
	Residual	2295.755	218	10.531		
	Total	2296.232	219			

Interpretation:
P-value/ Sig value: At 95% confidence interval or 5% level of the significance level the p-value in the above table is .832 which is greater than 0.05. Therefore, the result is insignificant and we fail to reject the null hypothesis.

Empirical Results and Conclusion
In regression analyses the p values help determine the relationships between the independent and dependent variable. If the p value for a variable is less than the significance level (0.05), the sample data provides evidence to reject the null hypothesis. From the statistical analysis it is found that Affirmation of Competencies have p value less than 0.05 depicting that changes in this independent variable is associated with changes in dependent variable (Psychological Safety). Hence this variable is statistically significant for the study.

On the other hand, Admiration of ideas, speak up culture and team behavior have insufficient association with psychological safety as in all these variables the p value is greater than 0.05. Hence it indicates that non-zero correlation exists and the researchers fail to reject the null hypothesis.

The aforementioned research paints a highly favorable picture, indicating that there is already a prevalent and strong sense of Psychological Safety within the BFSI sector of Pune city.

Implications and Suggestions
The findings of the study indicate a prevailing sense of Psychological Safety among employees within the Banking, Financial Services, and Insurance (BFSI) sector. Concurrently, during questionnaire administration, participants were prompted with an open-ended query soliciting recommendations aimed at enhancing

ISSN: 3048-5320 (Online)

Psychological Safety within the workplace environment.

Below are the recommendations provided by survey respondents:-

According to the respondents creating a conducive work environment is vital for enhancing employee morale and productivity. This entails providing constructive feedback in private settings to foster a sense of security and respect for individual pace and reliability. Leaders play a crucial role in motivating teams through guidance, clear expectations and regular one-on-one discussions to address concerns and maintain transparency.

Further it was suggested by the respondents that team engagement activities and monthly bonding sessions can promote camaraderie and understanding among team members, facilitating effective collaboration and conflict resolution. It is essential to prioritise work-life balance, mental well-being, and acceptance of diverse mindsets to cultivate a positive and inclusive workplace culture. Managers should lead by example, demonstrating vulnerability, humility and a commitment to equitable treatment for all employees.

To further bolster Psychological Safety, it is important to reduce unrealistic pressures, promote open dialogue and invest in training and development. Recognition and advancement should be based on merit, qualifications and hard work rather than favouritism. Additionally, fostering a friendly environment where ideas are valued and feedback is encouraged can help bridge communication gaps and inspire innovation. The depiction of Psychological Safety within the Banking, Financial Services and

Insurance (BFSI) sector is highly commendable which is also seconded by the researchers through their study. Hence it is suggested that various efforts are to be implemented in a consistent manner within the workplace so as to prioritise employee welfare and foster a culture of trust where organisations can cultivate a resilient and high-performing workforce.

References

Dramanu, B. Y., Milledzi, E. Y., & Asamani, L. (2020). Psychological safety and work engagement of senior high school teachers: Moderating role of psychological flexibility. European Journal of Educational Sciences, 7(3), 17-30. https://doi.org/10.19044/ejes.v7no3a2

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. Administrative Science Quarterly, 44(2), 350-383. https://doi.org/10.2307/2666999

Edmondson, A. (2019). The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth. Wiley.

Edmondson, A., & Lei, Z. (2014). Psychological safety: The history, renaissance, and future of an interpersonal construct. Annual Review of Organizational Psychology and Organizational Behavior, 1(1), 23-43. https://doi.org/10.1146/annurev-orgpsych-031413-091305

Frazier, M. L., Fainshmidt, S., Klinger, R. L., Pezeshkan, A., & Vracheva, V. (2017). Psychological safety: A meta-analytic review and extension. Personnel Psychology, 70(1), 113-165. https://doi.org/10.1111/peps.12183

How to foster psychological safety on your teams. (n.d.). re Retrieved from https://rework.withgoogle.com/guides/identifying-psychological-safety/

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. Academy of Management Journal, 33(4), 692-724. https://doi.org/10.2307/256287

Newman, A., Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. Human Resource Management Review, 27(3), 521-535. https://doi.org/10.1016/j.hrmr.2017.01.001

Ramalho, M. C. K., & Porto, J. B. (2021). Team Psychological Safety Survey [Measurement instrument]. Revista de Psicologia, 26(1), 1-14. http://dx.doi.org/10.1590/1413-82712021260114

Retrospective: Transformative trends in India's BFSI sector. (2023). Retrieved from https://bfsi.eletsonline.com/2023-retrospective-transformative-trends-in-indias-bfsi-sector/

Factors Affecting the Consumers' Attitude towards Eco-Friendly Packaging In Colombo District: Special Reference To Dilmah Tea Bags of Srilanka

K. L. S. Chathuranga
Student, Department of Marketing Management, University of Vavuniya.
lschathuranga98@gmail.com

Sivanenthira, S
Lecturer, Department of Marketing Management, University of Vavuniya,
sivamsiva@vau.ac.lk

Abstract

This research investigates consumer attitudes towards eco-friendly packaging, specifically focusing on Dilmah Tea Bags in the Colombo District. The primary objective is to examine the factors that influence consumer attitude and their propensity to adopt eco-friendly packaging solutions. A quantitative research design was employed, with data collected through a structured questionnaire distributed to a sample of 100 respondents selected via convenience sampling. Data analysis was conducted using SPSS 27, encompassing descriptive statistics, reliability testing, frequency analysis, correlation, and regression analyses. The results indicated that environmental concern and government role are significant predictors of consumer attitudes towards eco-friendly packaging, with these factors demonstrating a strong influence on consumer behavior. Descriptive statistics revealed a generally positive consumer attitude towards eco-friendly packaging, highlighting the importance of environmental awareness and regulatory support. Based on the statistics, it is recommended that companies like Dilmah strengthen their eco-friendly packaging initiatives and work closely with government bodies to promote sustainable practices. Further research should consider a broader range of demographic variables and extend to other regions for more generalizable results.

Keywords: *Eco-Friedly Packaging, Consumer Attitude, Dilmah Tea Bag, Colombo District, Consumer Behavior, Environmental, Government*

Background of the Study

Business practices often clash with environmental sustainability, particularly evident in product packaging. Statistics from the Association of Plastic Manufacturers indicate that packaging (39.6%), building and construction (20.3%), and automotive (8.5%) sectors are the top consumers of plastics/polythene. Globalization, while fostering economic growth, has also exacerbated environmental issues, with irresponsible disposal of plastic packaging being a major concern. Most European and Asian countries resort to landfilling for plastic waste, causing prolonged environmental damage. In response, there's been a push for eco-friendly packaging solutions. These alternatives prioritize environmental sensitivity, utilizing methods such as energy efficiency, recyclable and biodegradable materials, downsizing, and reusability. However, transitioning from traditional packaging to eco-friendly options poses significant challenges and risks for manufacturers due to its high costs. The Colombo District in Sri Lanka faces significant environmental pollution, largely attributed to non-recyclable packaging materials. Surrounding water bodies and swamps exacerbate the damage caused by these materials, making it a pressing issue for the district. Consequently, there's a growing demand among consumers and manufacturers for eco-friendly packaging solutions. However, the success of implementing such strategies hinges on consumer acceptance. Dilmah, a renowned Sri Lankan tea company, is recognized globally for its high-quality, ethically produced tea products. Established in 1988, Dilmah has consistently prioritized sustainability and social responsibility in its business practices. The company's commitment to environmental conservation is reflected in its efforts to adopt eco-friendly packaging solutions. The Dilmah Tea Bags Box, a flagship product, epitomizes this commitment by integrating sustainable materials and designs that minimize environmental impact. This product is not only a staple in the Sri Lankan market but also enjoys a significant presence in international markets.

Research Problem

The environmental crisis in the Colombo District, Sri Lanka, is exacerbated by the prevalent use of non-recyclable packaging materials, which account for a significant portion of plastic and polythene usage, reaching 39.6%. Improper disposal practices further contribute to environmental degradation, particularly through landfilling, a common method of waste management. Globally, there's a growing emphasis on eco-friendly packaging solutions, focusing on energy efficiency, recyclability, biodegradability, downsizing, and reusability. However, the transition from conventional packaging poses challenges for manufacturers due to high costs and operational

ISSN: 3048-5320 (Online)

hurdles, often hindering the adoption of sustainable practices. Within this backdrop, there emerges a critical nexus between consumer attitudes towards green packaging and its potential impact on manufacturers' decisions. The success of implementing eco-friendly packaging strategies hinges crucially on consumer acceptance and demand. As such, understanding the attitudes and preferences of consumers within the Colombo District becomes paramount. By examining the factors that influence consumer perceptions of eco-friendly packaging, this research seeks to shed light on the feasibility and potential barriers to adoption faced by manufacturers. Ultimately, a comprehensive understanding of consumer attitudes will inform strategic decisions aimed at promoting sustainable practices within the packaging industry, thereby contributing to environmental conservation efforts in the region.

Research Questions

- What is the impact of product characteristic on Consumer's attitude towards Eco-Friendly packaging?
- Find out the significant impact of environmental concern on Consumer's attitude towards Eco-Friendly packaging?
- What is the significant impact of government's role on Consumer's attitude towards Eco-Friendly packaging?

Objectives of the Study

- To identify the impact of product characteristic on Consumer's attitude towards Eco-Friendly packaging.
- To find out the significant impact of environmental concern on Consumer's attitude towards Eco-Friendly packaging.
- To identify the significant impact of government's role on Consumer's attitude towards Eco-Friendly packaging

Literature Review

Consumer attitudes towards green packaging influence their shopping decisions and overall preferences. According to Blackwell et al. (2006), consumer attitudes reflect their likes and dislikes, with environmental attitudes having a considerable influence on product choices. Mansaray and Abijoye (1998) emphasise that consumer knowledge, attitudes, beliefs, and activities play an important role in defining environmental quality. Thogersen (1999) emphasises the relationship between environmental concern and consumer attitudes, arguing that customers may actively contribute to environmental solutions by recycling and purchasing ecologically friendly items and packaging. Consumer attitudes towards green packaging are influenced by a variety of factors, including demographics, product qualities, environmental awareness, and government legislation on environmentally friendly packaging. Understanding consumer attitudes towards green packaging is essential for businesses and policymakers aiming to promote sustainability in the marketplace. Research in this area can provide insights into consumer preferences, motivations, and barriers related to green packaging adoption, facilitating the development of targeted strategies to meet consumer demand for environmentally responsible products and packaging solutions. The government plays an important role in environmental protection, with an impact on people's attitudes and behaviors towards sustainable practices. Abdul, Abustan, and Karwi (2000) emphasise the need of government intervention alongside industry and finance in creating positive attitudes towards environmental conservation. Government actions and policies can effectively influence consumer behaviour, particularly by encouraging the purchase of environmentally friendly items.

Research Methodology

The sampling process involved several key steps. These steps included defining the population, which encompassed all potential respondents meeting the selection criteria; convenience selection, where individuals were chosen based on their availability and willingness to participate; and data collection, where selected participants were contacted and invited to complete the questionnaire, ensuring voluntary participation and informed consent. This convenience sampling method helps the study gather a variety of consumer attitudes toward eco-friendly packaging, offering valuable insights into what influences these attitudes, even though there may be some selection bias.

Data Analysis

There is a strong positive correlation between Product Characteristics (PC) and Consumer's Attitude Toward Eco-Friendly Packaging (CATEFP) ($r = .538$, $p < 0.01$), suggesting that better product characteristics are associated with more positive consumer attitudes. Environmental Concern (EC) shows a very strong positive correlation with Consumer's Attitude Toward Eco-Friendly Packaging (CATEFP) ($r = .721$, $p < 0.01$), indicating that higher environmental concern is strongly associated with more favorable consumer attitudes. Government Role (GR) demonstrates a very strong positive correlation with Consumer's Attitude Toward Eco-Friendly Packaging (CATEFP) ($r = .732$, $p < 0.01$), suggesting that government involvement positively influences consumer attitudes. There are also significant positive correlations among the independent variables themselves: Product Characteristics (PC) and Environmental Concern (EC) ($r = .588$, $p < 0.01$); Product Characteristics (PC) and Government Role (GR) ($r = .411$, $p < 0.01$); and Environmental Concern (EC) and Government Role (GR) ($r = .616$, $p < 0.01$). These results suggest that all three independent variables have significant positive relationships with the dependent variable, warranting further exploration through regression analysis to understand the predictive power of each factor.

The F-statistic (63.794) is the ratio of the mean square regression to the mean square residual, indicating the model explains a significant amount of the variance in the dependent variable. The significance (p-value = .000) indicates the probability that the observed F-statistic would occur by chance. A p-value less than 0.05 (in this case, $p < .001$) suggests that the model is statistically significant and that the independent variables collectively have a significant effect on the dependent variable. The ANOVA that the regression model is statistically significant ($F(3, 96) = 63.794$, $p < .001$), indicating that the independent variables (Product Characteristics, Environmental Concern, Government Role) significantly predict the dependent variable (Consumer's Attitude Toward Eco-Friendly Packaging). This implies that the model explains a significant portion of the variance in consumer attitudes towards eco-friendly packaging.

Conclusions and Recommendations

Consumers in the Colombo District generally have positive attitudes about eco-friendly packaging. This good attitude stems from favorable evaluations of product attributes, increased environmental concern, and supportive government measures. Variations in opinions among demographic groups show that income level is more important than age, gender, or education level in influencing consumer behavior toward sustainable packaging. Emphasizing product characteristics such as quality, durability, and recyclability in eco-friendly packaging designs enhances consumer trust and satisfaction. Increasing consumer awareness about the environmental benefits of eco-friendly packaging and encouraging environmentally conscious purchasing decisions can further bolster positive attitudes. Additionally, continued support from the government through policies, incentives, and regulatory frameworks can sustain consumer interest and adoption of eco-friendly packaging practices.

Promotional Strategies: Create focused campaigns that emphasize the environmental benefits of eco-friendly packaging and its availability in local markets. Use a variety of media outlets, such as commercials, social media, and community events, to reach a large number of consumers and raise awareness. This strategy ensures that the word about the benefits of eco-friendly packaging reaches and understood by a wide range of people. **Product Strategy:** Encourage manufacturers to prioritize innovation in eco-friendly packaging, focusing on functionality, aesthetics, and environmental impact. **Incentives for Manufacturers:** Support for tax incentives and financial support mechanisms to encourage businesses to adopt sustainable packaging practices. Collaborate with industry stakeholders to develop guidelines and standards for eco-friendly packaging certification. These incentives and standards can motivate manufacturers to invest in sustainable packaging innovations and ensure consistency and reliability across products. **Consumer Education:** Launch educational programs targeting schools, communities, and online platforms to educate consumers about recycling practices, environmental benefits, and health implications of eco-friendly packaging. **Behavioral Change Programs:** Implement behavioral change campaigns that promote responsible consumption habits and encourage individuals to choose eco-friendly packaging options. **Environmental Policies:** Support for strong environmental policies that encourage recycling and limit the environmental impact of packaging materials. Collaborate with government agencies and policymakers to strengthen regulatory frameworks that encourage sustainability across industries.

By addressing these recommendations and exploring future research avenues, stakeholders can advance sustainable packaging initiatives, promote consumer engagement, and contribute toenvironmental conservation efforts in the Colombo District and beyond. This comprehensive approach will support the development of effective strategies that benefit both the environment and the economy.

References

Abdul, N., Abustan, I., & Karwi, A. B. (2000). Environmental concern: how do young Malaysian fare? Advances in international business, 482-494

Aertsens, J., Mondelaers, K., Verbeke, W., & Buysse, J. (2011). The influence of subjective & objective knowledge on attitude of organic food. British food journal, 1353-1378.

Ansar, N. (2013). Impact of Green Marketing on Consumer Purchase Intention. Mediterranean Journal of Social Sciences, 652-655.

Arminda, d. (2010). Green consumer market segmentation: empirical findings. International Journal of Consumer Studies, pp 429-436.

Bandara N.J.A.J, Lakmali W.A.S, Dissanayaka W.A.S.S. (2009, July). http://environmentlanka.com/blog/2009. Retrieved from http://environmentlanka.com

Blackwell, R., Miniard, P., & Engel, J. (2006). Consumer Behavior. 10th edition. Thomson Higher Education.

Brown, G., & Haris, C. (1992). The US forest service: Toward the new resource management paradigm? Society and Natural Resources, 231-245.

Chen, J., & Lobo, A. (2012). Organic food products in China: determinants of consumers’ purchase intentions. The International Review of Retail, Distribution and Consumer Research, 293-314.

Chen, T. B., & Chai, L. T. (2010). Attitude towards the Environment and Green Products: Consumers’ Perspective. Management Science and Engineering, Vol. 4, pp. 27-39.

Chyong, H., Phang, G., Hasan, H., & Buncha, M. (2006). Going green: A study of consumers' willingness to pay for green products in Kota Kinabalu. International Journal of Business and Society, 40-54.

Giovannetti, V. (1995). El mundo del envase Manual para el disen˜o y produccio´n de envases y embalajes. Mexico City.

Hellström D. and Saghir M. (2006). Packaging and logistics interactions in retail supply chains. Packaging Technology and Science, 20(3) 197-216.

Ibok, N., & Etuk, S. G. (2014). Socio-Economic and Demographic Determinants of Green Consumption. International Journal of Managerial Studies and Research (IJMSR), 2(9), pp 47-56. Retrieved from www.arcjournals.org

Kodituwakku, D., & Kanagasabai, K. (2012). Green marketing concept and consumer purchasing intention with special reference to consumer goods.

Krause, D. (1993). Environmental consciousness: An empirical study. Journal of Environment and Behavior, 26-42.

Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). “Targeting consumers who are willing to pay more for environmentally friendly products”. The Journal of Consumer Marketing, Vol. 18 No. 6, 503-20.

Mainieri, T., Barnett, E., Valdero, T., & Unipan, J. (1997). Green buying: The influence of environmental concern on consumer behavior. Journal of Social Psychology, 189-204.

Mansaray, A., & Abijoye, J. (1998). Environmental knowledge, attitudes and behavior in Dutch secondary school. Journal of Environmental Education, 4-11.

Mohammad, Z., & Amin, Z. (2012). Consumers’ attitude and purchasing intention toward green packaged foods; A Malaysian perspective. International Conference on Economics Marketing and Management, 1-2.

Rahman, M. (2011). Exploring Price Sensitivity of a Green Brand: A Consumers’ Perspective. World Review of Business Research, 1 (2), pp 84 - 97.

Tanner, C., & Kast, S. (2003). Promoting sustainable consumption: Determinants of green purchases by Swiss consumers. Psychology & Marketing, 883-902.

Thogersen, J. (1999). The ethical consumer. Moral norms and packaging choice. Journal of Consumer Psychology, 439–460.

Tikka, P., Kuitunen, M., & Tynys, S. (2000). Effects of educational background on students' attitudes, activity levels, and knowledge concerning the environment. Journal of Environmental Education, 12-19.

Uusitalo, L. (1986). Environmental Impacts of Consumption Patterns. Aldershot: Gower Publishing Company Ltd.

Young, W., Hwang, K., McDonald, S., & Oates, C. (2010). Sustainable consumption: green consumer behaviour when purchasing products. Sustainable Development, 18(1), 20-31.

 ISSN: 3048-5320 (Online)

Climate Change and Economic Vulnerability in Thailand: An Analysis of Future Risk of Tourism Industry

Dr. Sukanta Sarkar
Associate Professor, Department of Economics, Gambella University, Ethiopia,
Email: sukantaeco@gmail.com,
(ORCID-ID-0000-0003-3041-061X)

Abstract

The purpose of this paper is to examine the impact of climate change on the Thailand economy, especially the tourism sector. The study revealed that Thailand is rich in biodiversity, ecosystems, and natural resources. Thailand is considered vulnerable to climate change and variability. Thailand's natural resources are important assets for local communities and support the economies of many countries. Climate is an important element of tourism and can attract tourists. Climate factors include temperature, precipitation, cloud, air, wind, and humidity. Safety and easy access for tourists are important for the development of this business. Thailand is considered a country vulnerable to climate change due to its economic, physical, geographical and political diversity. The losses and impacts caused by climate change are unprecedented. Weather-related disasters, floods, earthquakes, inundations and severe weather conditions cause loss of life, property and livelihood in the country, and lead to all kinds of security and economic disasters. Climate change will directly affect visitors and reduce business income. There is relationship between tourist arrivals and gross domestic product of Thailand. Thailand is considered to be at high risk from the effects of climate change. Extreme temperatures and rising seas threaten parts of Thailand, including Bangkok. Erosion is considered a major problem in the country due to climate change. Climate change could cause climate of weather crosswise the country. Therefore, the government needs to implement the necessary policies to mitigate the impact and save the economy before a real disaster occurs.

Keywords: Climate change, Global warming, Natural calamities, Sustainable Development and Tourism industry.

Introduction

The issue of climate change has many impacts on people's lives. Climate change and global warming are now recognised as a global crisis affecting people's livelihoods and ecosystems, as evidenced by rising sea levels due to ice and snow melting, and global warming due to emission of greenhouse gases. Agriculture and industry are not the only ones affected by climate change (Ushakov, 2021); Thailand's tourism industry is one of the country's major sources of income. Climate change have affected human livelihoods and ecosystems worldwide. Changes in temperature, rainfall patterns, sea levels and the frequency of natural disasters are expected to have a major impact on the tourism industry in the future (Sungkaew, 2020). These changes will alter behaviour and health of peoples (Kaosa-ard, 1994). The effects of high temperatures can cause severe coral bleaching. Environmental assets are vital to Thai economy and the health of local communities. Unfortunately, environmental degradation and depletion of natural resources threaten local livelihoods and tourism. Southeast Asian countries are often considered to be some of the world's most vulnerable to damage from climate change, environmental degradation and natural disasters. Without rapid change and mitigation, societies and businesses will face greater climate risks (Wongtada, 2017).

Thailand is the second largest emitter of carbon dioxide in Asia and ranks 13th in the world in terms of risk from the effects of climate change. Despite its economic importance, marine resources are vulnerable to the effects of climate change. The climate is now warming, as observed in the increases in global average air and sea temperatures, and raising of sea level (Iamtrakul et. al., 2024). Coastal communities are vulnerable to the effects of climate change due to their remoteness, geographic area, high population, and the economic activities of coastal infrastructure and natural resources (Chon et. al., 1993). Climate change poses a threat to the livelihoods of communities that rely heavily on marine tourism as their main source of income (Glanzberg, 1993). The weather, the wealth and health of the place are important factors in deciding where to travel. In terms of domestic tourism, the northern provinces have long attracted Thais because of the cool climate of the rich landscape, while the coastal provinces attract international tourists and tourists who love the white sands and rich underwater world. Tourism is a climate-sensitive sector. To counter these effects, the Thai government has worked hard to ensure a

ISSN: 3048-5320 (Online)

competitive economy in the world market, both in terms of the health of the region and the health of its people (Shafiai & Rashid, 2021).

Objectives

The objectives of the study are:

a) To analyze the impacts of climate change on the economy of Thailand, with a special focus on the tourism sector.
b) To examine the vulnerabilities of Thailand's tourism industry to changing climate patterns and natural disasters.
c) To evaluate the government's policies and strategic measures aimed at mitigating the effects of climate change on the economy and tourism industry in Thailand.

Methods and Materials

- **Study area**: The Kingdom of Thailand covers an area of 513,115 square kilometers in Southeast Asia. It has border with Myanmar, Laos, Cambodia, and Malaysia. It is divided into central, northern, northeaster, eastern and southern regions. Approximately 47 percent of the country's land is agricultural land. Thailand has made remarkable progress in socio-economic development over the past four years, transforming from a low-income country to a high-income country in less than a generation. The country's economy is driven by agriculture, trade and services, and tourism, supporting a population of approximately 69.8 million (2020). As the economy has developed, the proportion of urban population in the total population has steadily increased. Coastal erosion is a major coastal problem in the Gulf of Thailand, rather than the Andaman Sea. It affects local fishing communities as well as major coastal ports and commercial centres. This will lead to extreme weather conditions such as rising seas, flooding, and climate change risks such as temperature and rainfall, which will significantly affect the country's economy, especially agriculture and business.

- **Hypothesis**:
  H_{01}: There are no relationship between tourist arrivals and GDP of Thailand, and
  H_{1a}: There are relationship between tourist arrivals and GDP of Thailand.
- **Design and approach:** The design of this study was defined and used as qualitative. Secondary data was used in this research. Secondary data is collected by various governments. reports, Thailand Tourism Department, international publications, research articles, published articles, online papers etc.
- **Method of analysis:** A range of qualitative analysis methods, including descriptive, analytical content and textual analysis, were used to uncover the full spectrum of approaches to climate change and its impact on tourism industry in specific.

Results and Discussion

Thailand has made great strides in business over the past few years. The country is vulnerable to natural disasters: floods, tsunamis, storms, inundations, landslides, forest fires, and epidemics. Hydrological events and droughts frequently affect Thailand, which experienced one of the deadliest events in human history: the 2004 Indian Ocean tsunamis. Droughts and floods pose the greatest threat to the country. Storms are also less of a risk to the northern part of the country. Thailand's long coastline, complex agricultural system, and sensitivity to extreme weather conditions make it vulnerable to climate change. Thailand's rapid economic growth has led to increased energy demand. In addition to its geographical and economic disadvantages, Thailand is also expected to be greatly affected by climate change. The German Watch Global Climate Risk Index 2021 ranks Thailand 9th in the world in long-term climate risk. Thailand is Asia's second-largest economy after Indonesia. Since the 1960s, the growth of agriculture has supported Thailand's transition to an industrial economy. Rice is the country's most vital crop. It is a major exporter of shrimp. Other products include coconuts, maize, rubber, soybeans, sugar, and cassava. Thailand is the world's third largest seafood exporter.

Electrical and electronic goods are Thailand's biggest export, and the country is vulnerable to climate change, and agriculture is no exception. As temperatures rise, rainfall becomes more unpredictable, and extreme weather conditions become more frequent, Thai farmers are struggling to keep up. The country's agriculture is particularly vulnerable to climate change. Rice is Thailand's most important crop and is particularly sensitive to temperature changes. As temperatures rise, the growing season shortens, reducing the amount of water available for irrigation. This results in lower yields and lower productivity. This makes this tropical Southeast Asian country a tourist destination, but it is also vulnerable to the effects of climate change. Climate change affects all major activities of the Thai economy: agriculture, trade and commerce. Since the mid-20th century, various studies have shown temperature across Thailand has changed. Thailand is heavily affected by climate change due to major disasters such as heavy rainfall, floods and droughts, as well as the effects of sea level rise on the country's coasts. Floods are Thailand's biggest natural disaster in terms of economic and humanitarian impact, with the country listed as one of the top 10 flood-prone countries in the world. Farmers are affected by floods and inundations every year, resulting in crop losses, low productivity, high debt and low household income.

Changes in regional climate patterns can have a major impact on the sustainability of agriculture, with disruptions to operations at critical stages from planting to harvest. Changes in temperature and humidity can also increase pest populations, including the white grub that damages potatoes and the brown grub that typically feeds on crops during the rainy season. Given that Thailand is a major exporter of rice and cassava, and agriculture still benefits a large portion of the population, the impacts of climate change on business should have a major financial impact at all levels. Besides agriculture, many other important sectors in Thailand, such as water management, food security, health, tourism, property management, and human peace and security, are also vulnerable to the effects of climate change. Therefore, climate change is one of the key issue in Thailand that affects the lives and livelihoods of society, economic growth and sustainable development.

Thailand is a beautiful destination of local and foreign holidaymakers. However, in this era of increasing climate change, it still faces threats, security and major risks such as sea level rise, floods, temperature increase, droughts, coral bleaching, etc. If these dangers and risks are not addressed, local and national economies will suffer. Tourism accounts for 21 percent of Thailand's GDP and million international tourists visited every year. Climate change will affect all regions and people differently, with some groups bearing the brunt of the burden more than others. Particularly vulnerable workers are those working in sectors that are vulnerable to climate change and do not have adequate response mechanisms, such as low-income people, communities in disaster areas, and businesses that depend on climate and natural resources for their livelihoods. In Thailand, we see rising temperatures and years of rainfall leading to increasingly heavy flooding and more severe flooding. These impacts affect the entire country, affecting all industries from tourism to public health to national governance. Businesses can lose nature and culture due to climate change. Health officials are facing the risk of a resurgence of the disease. Agriculture should be the focus of attention as it is directly affected by climate change. More than 12 million people currently work in agriculture in Thailand, making it one of the most important jobs in the country. When weather conditions such as temperature and rainfall change, farmers face more problems due to various risks. Rice can be damaged by floods during the rainy season, while rice in the highlands can face drought during harvest. In aquaculture, high temperatures can kill fish, crabs and other seafood. Animal health, growth and development can be affected.

Thailand’s climate risk map assesses the vulnerability of agriculture and food security to the impacts of three climate change hazards (heat, drought and floods), as well as climate security reflecting regional inequalities. The provinces most at risk of heatstroke, including Nakhon Ratchasima, Ubon Ratchathani, Buriram, Khon Kaen, Sisaket, Surin and Roi Et, are located in the northeast; Nakhon Ratchasima faces extreme temperatures, climate and floods. The hazards of climate change affect Thailand at every level, affecting health, public facilities and housing. Water scarcity not only affects livelihoods, but can also lead to biodiversity loss, increased water pollution and crop failure. In addition to biodiversity loss, Thailand has experienced coastal erosion. Chiang Mai and Ubon Ratchathani are most affected provinces. Thailand has long coastlines, agriculturally based rural communities and densely populated cities in flood plains. Thailand experiences drought due to inadequate rainfall, poor land management and reduced water flow. Thailand's northeast is particularly vulnerable to climate change and has high poverty rates. Thailand's agriculture is sensitive to climate change and is heavily affected by weather conditions. Agriculture is Thailand's second largest source of greenhouse gas emissions. Other important sectors in Thailand vulnerable to climate change include water management, food security, health, tourism, infrastructure management, and human resources peace and security.

Climate change in Thailand is a global issue with serious consequences. The country is already experiencing the effects of climate change, including rising temperatures, increased air pollution and changing rainfall patterns. These changes are expected to continue in the future, with major impacts on the country’s economy, environment and people. Tourism plays a major role in the Thai economy, accounting for 20-22% of gross domestic product. Climate change is causing the loss of cultural and tourist sites. Bangkok, Chiang Mai and Phuket, which generate the most income from tourism, are considered high-risk areas. Climate change is disrupting water supplies, housing and public services, affecting millions of people living in cities. Bangkok, Nakhon Ratchasima, Samut Prakan and Khon Kaen are the most at-risk provinces. Climate change could cause respiratory diseases, malnutrition and infections that were previously under control or eliminated to re-emerge. Climate change has a huge impact on everyone, but tackling it requires regional, national and international cooperation.

Thailand emits less than one percent of the world's greenhouse gas emissions, but is one of the ten countries most affected by climate change. National parks and forests that have been cut down or mixed together will be more at risk from the heat. Meanwhile, Bangkok and its suburbs are among the 10 provinces most at risk of flooding due to increased rainfall and dam construction in the Chao Phraya River basin. The effects of climate change are uncertain and vary from region to region. Lower-income groups may face greater challenges because moving from high-risk areas is more difficult than for higher-income people. Sea level rise caused by climate change poses a major threat to Thailand due to climate change. The Thai government’s Department of Marine and Coastal Resources estimates tropical ecosystems are considered particularly vulnerable because many species of tropical organisms have adapted to extreme temperatures. They cannot survive when temperatures rise. Climate change has had a major impact on tourism in Phuket, Thailand. Due to rapid economic growth, large population and large number of tourists, Phuket is experiencing water shortages, causing demand for water to exceed supply. Small islands like Phuket are particularly vulnerable to the effects of climate change, including sea level rise, which can affect coastal areas and the tourism industry. The effects of climate change on the global environment are related to increasing temperatures, rising sea levels, changing rainfall patterns and weather patterns, all of which have direct impacts on tourist areas such as Phuket.

Krabi Province is located in the south of Thailand, bordering the Andaman Sea, and has many of the beautiful beaches and islands that make Thailand famous. Ayutthaya was once the capital of the Kingdom of Siam, and its ruins are breath-taking and hauntingly beautiful. It’s only an hour from Bangkok, making it an easy day trip or overnight trip. Sukhothai is another beautiful old city. It has hiking trails, hidden waterfalls and elephant herds. Thailand’s largest and most accessible island attracts millions of tourists each year with its many hotels, white beaches, Patong parties, colourful snorkelling and eclectic cuisine. Koh Samui is surrounded by white sandy beaches dotted with temples, hiking trails, beautiful resorts, beach towns and villages. Koh Tao island is one of Thailand's best diving and snorkelling spots. Trang is a province located just south of Krabi, having beautiful Andaman coastline but fewer people. Khao Lak is less than two hours from Phuket International Airport and has easy access to miles of beaches and beautiful national parks., Prachuap Khiri Khan is famous for the charming and lively town of Hua Hin. The state is a skinny country bordered by the Gulf of Thailand on one side and Myanmar on the other. Thailand's first marine park. Koh Lantai has beautiful beaches, good restaurants and Mu Ko Lanta National Park, a great place to dive and see undeveloped beaches.

Table 1: Arrivals of Tourists in Thailand

Year	Number of Tourists	Year	Number of Tourists
2015	29.90	2020	06.70
2016	32.50	2021	00.43
2017	35.59	2022	11.07
2018	38.18	2023	28.15
2019	39.80	2024	36.10

Source: https://www.statista.com/, Note: Tourist number in millions.

Table 1 discussed the trend of tourist arrivals in Thailand. Number of tourist arrivals in Thailand was increased continuously, but was declined in 2020-21 due to the corona pandemic. Thailand has sand beaches and palm tree-lined islands in the south, to the mist-covered hillsides and temple-studded mountains in the north, to the never-ending chime and hum of Bangkok's neon lights and endless ruins. Bangkok is a beautiful place and one of my favourite cities in the world, with so much to offer, but it's one of my favourites in the best way possible. Many travellers prefer Chiang Mai to Bangkok for its slower pace of life. This beautiful city is filled with temples, restaurants, and bars. Thailand's coastline is dotted with over 1,400 islands, but few are as famous e.g. Koh Phi Phi in the Andaman Sea. Koh Phi Phi consists of two islands, Phi Phi Don and Phi Phi Leh, known for their beauty, excellent diving, and fun party scene. Thailand's tourists are unevenly distributed, with most opting for tourist destinations in islands and southern coast. Bangkok attracts many tourists beyond its beaches. Similarly, cities known for their cultural heritage, such as Ayutthaya, Sukhothai and Chiang Mai, also attract large numbers of tourists, indicating that the number of tourists in tourist areas puts pressure on the resources of the selected areas.

Table 2: Number of Domestic Tourist Arrivals in Thailand, 2023

Month	Number	Month	Number
January	21.92	July	19.79
February	20.34	August	20.14
March	20.36	September	19.51
April	21.41	October	20.75
May	19.73	November	21.62
June	19.18	December	24.32

Source: https://www.statista.com/statistics/1140514/thailand-number-of-domestic-tourists/
Note: Tourist number in millions.

Table 2 represented the domestic tourist arrivals in Thailand in 2023. It has found that tourist arrivals throughout the year. November to January is the peak months for tourist. Visitors may be affected by the quality of the tourism industry, such as transportation or services. The large number of tourists is causing a major crisis in the ecosystem. Thailand's long coastline, fragile agricultural system, and vulnerability to extreme weather conditions make the country vulnerable to climate change. Since the 20th century, climate change has caused the climate in Thailand to warm. Thailand is considered to be at high risk from the effects of climate change. Extreme temperatures and rising seas threaten parts of Thailand, including Bangkok. Erosion is considered a major problem in the country due to climate change.

Table 3: Revenue from Multiple Segments of Tourism Industry in Thailand

Year	Camping	Cruises	Hotels	Package Holidays	Vacation Rentals	Total
2017	30.76	19.62	1265.00	895.40	391.80	2602.58
2018	34.17	20.17	1285.00	943.10	421.80	2704.24
2019	37.50	20.74	1313.00	999.70	956.40	2827.34
2020	2.17	4.77	624.00	482.40	234.10	1347.33
2021	5.08	1.51	860.60	654.80	249.40	1771.39
2022	30.56	11.84	1142.00	922.00	454.10	2560.50
2023	31.60	17.96	1342.00	1146.00	607.10	3144.66
2024	32.93	19.04	1438.00	1298.00	679.20	3467.17

Source: https://www.statista.com/outlook/mmo/travel-tourism/thailand#revenue, Note: revenue in million USD.

Table 3 discussed the revenue from multiple segments of tourism Industry in Thailand. Revenue from segments in tourism industry was increasing continuously, but was declined in 2020-21 due to the corona pandemic. Tourism is crucial to many economies, but rising global temperatures are putting parts of the industry at risk. The climate crisis is changing the face of many tourist destinations and is already making some holidaymakers rethink their plans. Coral bleaching and increasing droughts are already impacting the Thailand’s tourism potential. Thailand’s Maya Bay, Malaysia’s Sipadan Island and the Philippines’ Boraca Island are all being impacted, and some places in the region are now closing tourist spots to give the most damaged areas time to recover. Rising temperatures are likely to result in tourists travelling in spring and autumn rather than the summer, as well as opting for cooler destinations.

Table 4: Total value of the tourism's contribution to the GDP in Thailand

Year	Revenue	Year	Revenue
2017	2825.19	2020	883.03
2018	2964.69	2021	356.11
2019	3028.78	2022	1258.12

Source: https://www.statista.com/statistics/1143427/thailand-value-of-tourism-gdp/, Note: Value of tourism’s GDP in billion Thai baht.

Table 4 discussed the total value of the tourism's contribution to the GDP in Thailand. It has found that contribution of the industry was increasing continuously, but was declined in 2020-21 due to the corona pandemic. Effectiveness and good practices, coordination and integration of different activities, development and support of environmental technology and infrastructure are important for stability and impact. Decentralization of participation in climate governance to local governments is critical for future climate change. The solution to global warming cannot be based on national policies alone; consumer behaviour must change for the economy to become green. When market mechanisms work, they force producers to react.

Table 5: Calculating Linear Regression between Gross Domestic Product of Thailand's Tourist Inflow*.

Year	Tourist Arrivals	Gross Domestic Products
2015	29.90	40129.62
2016	32.50	41336.42
2017	35.59	45635.68
2018	38.18	50675.42
2019	39.80	54395.67

Source: https://www.statista.com/, Note: Tourist arrivals in millions, and gross domestic product is in crores USD.
* Pre-corona pandemic analysis.

Table 5 (a): Summary Output

Regression Statistics	
Multiple R	0.976639639
R Square	0.953824985
Adjusted R Square	0.938433314
Standard Error	1507.996323
Observations	5

Source: Calculated by author.

Table 5 (b): ANOVA Analysis

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	140923516.4	140923516.4	61.9702	0.00427096
Residual	3	6822158.731	2274052.91		
Total	4	147745675.1			

Source: Calculated by author.

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	-5159.543873	6588.638848	-0.783097085	0.490701845
Tourist Arrivals	1465.991529	186.2258683	7.87211542	0.00427096

Source: Calculated by author.

The table (5-a) shows that R square is found to be 0.953824985, showing, that the degree of relation between the independent variable X, i.e. arrivals of tourists, and the dependent variable Y, i.e. gross domestic product. Table (5-b) shows that p value (0.004) is less than critical value at 5% level of significance ($p< 0.05$), therefore we will reject the null hypothesis-1. So, it is concluded that there is relation between tourist arrivals and gross domestic product in Thailand.

Government Initiatives

Thailand is one of the Southeast Asian country affected most by the climate change. The country is increasingly facing severe floods, inundations and storms that are causing more deaths. In response to climate change, Thailand aims to achieve carbon neutrality by 2050 and net zero greenhouse gas emissions by 2065. An important step in making the country's climate change needs a reality is identifying short and long-term projects, key investments

ISSN: 3048-5320 (Online)

and initiatives to reduce emissions and climate change. The Department of Tourism and the Office of Natural Resources and Environmental Policy and Planning have worked with local and international experts to save tourism from the impacts of climate change. Thailand does not have a good record of commitment to climate change and sustainable development goals. The path to carbon neutrality and net zero will be difficult and will require strong will. Tourism security is one way to help protect countries and businesses at risk from climate change.

Thailand is implementing a national carbon reduction plan called as “Thailand’s Sustainable Poverty Reduction Strategy.” Thailand’s rapid economic growth has led to increased energy demand. Thailand has implemented demand management plans and energy conservation plans to adapt to climate change and meet its large energy demand. The main goal is to promote Thailand’s sustainable development, low-carbon growth and climate change by 2050. In recent years, the Thai government and policymakers have invested money, research, legislation, and political activities to reduce pollution, protect the environment, and combat climate change. Thailand established the country's National Climate Change Committee in 2007. Such committee is chaired by the Prime Minister and consists of members from the public, private sectors, and institutions. It works to develop the country's climate policy.

Conclusion

The effects of climate change and global warming have affected the tourism industry worldwide, and Thailand is no exception. Many of Thailand’s most popular destinations in the northern provinces rely on cold winter weather to attract more visitors. This makes the local economy vulnerable to global crises such as hot, short summers. Thailand’s rapid economic growth has led to many environmental problems. The country is facing climate problems, wildlife decline, deforestation, soil erosion, water scarcity, and waste issues. In terms of climate change, the increase in rainfall in almost all parts of Thailand every year causes many natural disasters such as floods and frequent floods, and there is a risk of greater disasters such as tsunamis. Drought and floods pose the greatest threat to the country. We see that temperatures are increasing in Thailand, and the rainfall over the years has led to increasingly severe floods and more severe floods.

Climate change is causing the loss of cultural and tourist sites. Bangkok, Chiang Mai and Phuket, which generate the most revenue from tourism, are considered high-risk areas. Rising temperatures are affecting the country’s economy, trade and energy, while the path to safety remains uncertain. Thailand’s tourism industry has suffered during the COVID-19 pandemic, with international visitors falling from more than 40 million in 2019, before the pandemic, to 6.7 million in 2020 and then again to 428,000 in 2021. This is partly due to the rise in the cost of international travel, which has led to fewer long-term travellers who tend to stay longer and spend more, and has attracted tourists from countries such as Malaysia and Singapore.

Country’s tourism industry is facing new challenges. Political conflicts, the spread of AIDS among the Thai population, and the large number of hotels threaten the country’s economy. In response, the Prime Minister’s Office, the National Tourism Organization, and the private sector have made concerted efforts to rebuild Thailand’s image and promote the country as a tourist destination. The future of Thailand’s business sector looks bright, depending on political stability, government commitment, and public-private partnerships to make Thai business a reality as expected (Chon et. al.,1993). Despite its problems, Thailand is still a great place. The government is also aware of the country’s problems (especially pollution and poor infrastructure) and is working to address them. Thailand has benefited from a stable of long-term hotel projects, including the Dusit Thani and Oriental Hotel in Bangkok and the Royal Cliff Resort in Pattaya (Glanzberg, 1993).

Therefore, it is vital to develop climate change strategies to ensure the sustainability and strength of the tourism industry. The Thai government attaches great importance to the implementation of social norms. The government needs to consider environmental protection management to ensure that the negative impact on the business and industrial environment is kept to a minimum. Thailand also needs to address emissions from agriculture through carbon reduction (such as recycling) and offset strategies such as carbon capture and storage.

References

Chon, K., Singh, A., and Mikula, J. (1993). Thailand's tourism and Hotel industry. Cornell Hospitality Quarterly. 34 (3), https://doi.org/10.1177/0010880493034003

Glanzberg, A. (1993). Hotel Opportunities in Thailand. Cornell Hospitality Quarterly. 34 (3), https://doi.org/10.1177/001088049303400310

Iamtrakul, P., Chayphonga, S., Seo, D., and Trinh, T. (2024). Geo-spatial analysis of transit planning for sustainable tourism development in Bangkok, Thailand. Journal of Asian Architecture and Building Engineering. https://doi.org/10.1080/13467581.2024.2366808

Kaosa-ard, M. S. (1994). Thailand's Tourism Industry—What Do We Gain and Lose?, TDRI Quarterly Review, 9 (3), 23-24.

Shafiai, S and Rashid, I. (2021). Economic determinants tourism performance: Perspective of Thailand’s tourism sector. Proceedings of 8th international conference on advanced materials engineering & technology, https://doi.org/10.1063/5.0052038

Sungkaew, P. (2020). Tourism and Long-Run Economic Growth in Thailand: From 1960 to 2018. Asia-Pacific Social Science Review, 20 (2), 158-159.

UNDP, Retrieved from https://www.undp.org/stories/climate-impact-thailand

Ushakov, D. (2021). Tourism industry of Thailand: through crisis, lockdown and sandbox - to self-sufficiency, EUrASEANs: Journal on Global Socio-Economic Dynamics, 4 (29), 18-19.

Wongtada, N. (2017). Survival of a market leader in a regional integration of emerging economies: a case study of the tourism industry in Thailand. Journal of the International Academy for Case Studies, 28 (2), 49-50.

ISSN: 3048-5320 (Online)

Financial Performance Analysis of Old and New Generation Banks – A Comparative Study

J. Nisha Mary
Research Scholar (PT) & Assistant professor, Department of Commerce, Adhiyaman Arts and Science College for Women, Uthangarai, Tamil Nadu, India

Dr. Mary J. Priyadharisini
Research Supervisor & Assistant professor, Department of Commerce, Unique College of Arts and Science, Karapattu Tamil Nadu, India

Abstract
Banks play an important and diverse role in the growth of the economy. Banks mobilize the country's idle resources for productive purposes. Now, the Indian banking industry is undergoing significant change as a result of global developments such as increased competition, rising consumer preferences, declining spreads, increased disintermediation, and dynamic pricing, among others. Profitability, competitiveness, and financial stability have all been important goals to pursue. The fundamental intention of the study is to do the comparative have a look at of the performance of the old and new generation banks in India largest in terms of general property calculated for remaining five years from 2016- 2020. To this research paper the researcher used camel model for her analysis purpose. For this take a look at, personal area banks old and new generation banks were taken. A result shows that the performances of new generation banks are better than old generation banks.

Keywords: Private sector banks, new generation, old generation banks, financial performance, comparative study.

Introduction

As of right now, banking plays a significant role in both the economy and society. The banking sector, which was heavily regulated prior to the reform, is reorienting itself to meet new challenges that are emerging in the global financial quarter. Tight regulations, a botched recovery effort, and most importantly, a lack of competition, were the foundational elements that were held accountable for the performance of public sector banks. When you go back to 1991, the banking sector has undergone a thorough and intricate restructuring aimed at improving its soundness and efficiency while also strengthening its ties to the real economy to promote growth, investment, and savings. Indian banks are now able to confidently compete with global modern banks.

India is celebrating its 77th anniversary and has seen remarkable growth, ranking second in the world economy to China. The banking industry has unquestionably been crucial in preventing the country's economy from collapsing. Because a strong banking sector system serves as the cornerstone of a country's stable industrial and economic growth, the banking sector's performance is seen as an exact replica of the country's economic activities. Because of the Narasimham Committee's recommendations, the entire banking landscape has altered in the very recent past. To further standardize procedures and increase the banking industry's adaptability to delicate market threats, more Basel II Norms have been added globally.

Private Sector Banks in India

In India, the banking sector consists of both public and private sector banks, with the private sector accounting for a portion of it. These banks are referred to as "private-sector banks" because private investors, rather than the government, own a larger portion of their state or equity. From the Indian government's nationalization of all major banks in 1969, public sector banks have dominated the banking industry in that country. Old and new private sector banks have resurfaced, though, since government banking regulations were liberalized in the 1990s. Financial authorities in India have divided the private sector banks into two categories: old and new. The old private sector banks continued to operate independently before being nationalized in 1969 because they were either too small or too specialized to be taken over by the government. The banks that have obtained their banking licenses since the 1990s liberalization are the new private sector banks.

The private sector's significant contribution to the Indian economy in terms of job creation and the eventual eradication of poverty is highly praiseworthy.

Financial regulators in India have divided the private sector banks into two categories: old and new generation banks.

Old Generation Banks

Banks operating in the private sector prior to the Great Depression are referred to as old private sector banks. Private sector banks that date back to before 1991 are known as old banks because they have been in operation for a considerable amount of time. The age of these banks exceeds fifty years. It is well known that the banks are the older private sector banks that were spared from nationalization during the bank nationalization events of 1969 and 1980. South India is home to the majority of these tiny banks.

Currently, India has twelve old generation private sector banks. The banks that fall under this category are the following: Karnataka Bank, Karur Vysya Bank, Lakshmi Vilas Bank, Ratnakar Bank, South Indian Bank, Federal Bank, City Union Bank, Dhanalaxmi Bank, and Tamilnad Mercantile Bank. Of the aforementioned, Bank of Baroda owns a 98.57% stake in Nainital Bank, which is one of its subsidiaries.

New Generation Banks

"New Generation Banks" are the banks that opened for business following the implementation of financial sector and economic reforms in 1991. The Banking Regulation Act was subsequently modified in 1993, allowing New Generation Banks to open for business in India. The Narsimham Rao government started a liberalization and licensing program for a select group of private banks at the beginning of the 1990s. In 1993, the Banking Regulation Act was modified based on the recommendations of the Narsimham Committee, paving the way for the emergence of new generation banks. Even before independence, there were numerous other banks that are currently operated by the private sector. The government of India has approved the establishment of private banks by foreign corporations and non-resident individuals, in compliance with the recommendations made by the Narsimham committee. The Reserve Bank of India received 140 applications for the establishment of new generation banks by the end of February 1994. Of those, only 19 applications met all the requirements and were submitted in the official RBI forms. After processing the applications, the RBI only approved 10 applicants, and these new banks are referred to as "New Generation Banks (NGBs)."

Banks in the private sector are those that are owned by businesses or non-governmental organizations. But these banks are subject to Reserve Bank of India regulation. After the organization of private sector banking, this high-tech, fiercely competitive private sector banks exist today. As part of the liberalization process, new generation banks have received licenses from RBI. Many banks are operating profitably in the consumer and retail markets, but they have not yet expanded to offer services to the industrial, retail trade, small business, or agricultural finance sectors. Private sector banks have transformed banking by introducing a plethora of new services and making it more "customer friendly." These services include credit cards, ATMs, mobile and internet banking, easy loans such as home, auto, and education loans, as well as 12 online trading platforms. Payments for utilities, phone bills, insurance premiums, and other expenses can be made directly from a bank account with standard instructions.

Private sector banks are better equipped to handle the needs of India's rapidly expanding corporate sector. These banks were the go-to choice for the corporate sector because of their sophisticated infrastructure, skilled workforce, and cutting edge technology.

Review of Literature

Cheenu Goel and Chitwan Bhutani Rekhi (2013) in their study try to degree the relative overall performance of Indian banks. For the have a look at, they used public sector banks and private area banks. Overall, the evaluation supports the belief that new banks are greater green that antique ones. The public sector banks aren't as worthwhile as other sectors are. It means that efficiency and profitability are interrelated. The key to increase performance relies upon ROA, ROE and NIM.

Dr. N. Kavitha (2012) in his study the profitability of banks for the period 2000-2010. To check the profitability of banking region in India, discriminate evaluation and discriminate function analysis which measures the profitability of banks from every crucial parameter like the variations among the mean profitability of two intervals.

Bodla and Richa (2006) in their study on “Evaluating Performance of Banks through CAMEL Model: A Case Study of SBI and ICICI” made an attempt to study the performance of SBI and ICICI through CAMEL Model for the period 2000-01 to 2004-05. The study revealed that in earning quality, measured in terms of the ratio of operating profit to average working funds, net profit to average assets, etc., ICICI Bank had outperformed SBI.

The same was true of assets quality, 39 earning quality and management quality ratios. The liquidity position of both the banks was sound and did not differ significantly.

Gupta Sumeet and Verma Renu (2008) examinations the general monetary performance of significant private division banks in India through use of CAMEL Model. Ten noteworthy private sector banks has been taken-Axis Bank, Bank of Rajasthan, City Union Bank, HDFC Bank, ICICI Bank, Kotak Mahindra Bank, Karnataka Bank, Karur Vysya Bank, South Indian Bank, Yes Bank. The calculating so as to position of these banks has been finished the normal of various fiscal proportions of 5 years from 2003 to 2007 at the rating size of 1-10. For similar examination of general performance, Composite Ranking technique has been connected on the premise of gathering performance. Examination demonstrates that Karur Vysya Bank has the top position in general performance took after by City Union Bank and Kotak Mahindra Bank, Bank of Rajasthan has the most reduced Composite Rank among every one of the banks under study. It can be reasoned that straightforwardness and great service would fill in as central controlling power in present situation.

Need of the Study

Performance evaluation is important in a corporation, for sustainable increase and development, for this first measures and evaluates the overall performance, and then brings out the strengths and weaknesses of the employer for the motive of similarly improvement. Every industry, that understands significance of assessment, can adopt many strategies to assess the performance. It show to be better for overall performance measurement, assessment and strategic planning for destiny boom and development of the Indian banks inside the light of changing requirements of this quarter so to investigate the comparative profitability overall performance of banks for the monetary periods 2016-2020.

Objective of the Study

- To analyze the financial performance of selected New Generation Banks and Old Generation banks on different parameters of CAMEL rating system.
- To provide suitable recommendations/Suggestions to improve the performance of old and new generation banks.

Research Methodology

Data Source

The data collected for the study includes secondary data.

Data Collection

Data was collected through Re- serve Bank of India monthly bulletins, annual reports, money rediff, money control , banks websites etc.,

Method

The research methodology of the proposed research paper comprises the Camel model analysis.

Sampling Technique

Judgmental samplings were used to collect the secondary data.

Limitations of the Study

- Research is restricted to old and new generation banks so; analyzing overall performance is very difficult.
- Results of this research are confined and limited to selected banks.

Data Analysis and Interpretation

Composite Ranking (Overall Performance) of Selected Old Generation Banks and New Generation banks

BANK	C	A	M	E	L	Average	Rank
Federal bank	5.92	2.636	97.465	1.1285	1.8186	21.79	**9**
Tamilnad Mercantile bank	15.74	0.267	53.856	2.031	0.2805	14.43	**3**
Karur Vysya bank	6.58	1.739	90.126	1.179	1.7071	20.27	**8**
Lakshmi Vilas	5.69	2.231	75.59	1.238	0.5729	17.06	**6**

bank							
South Indian bank	6.02	3.315	124.761	1.209	0.3646	27.13	**10**
AIXS bank	12.67	1.656	67.073	1.983	0.687	16.81	**4**
HDFC bank	7.41	0.288	39.425	2.021	0.4393	9.92	**1**
ICICI bank	17.19	1.502	44.397	2.034	0.5196	13.13	**2**
KOTAK MAHINDRA bank	11.67	3.042	67.598	1.459	0.9365	16.94	**5**
YES bank	15.35	0.618	69.012	1.1165	0.3269	17.28	**7**

Interpretation

The overall ranking analysis has been made by computing composite mean rank of all parameters of CAMEL model and overall rank of the banks. Here mean rank has been computed as the average of final ranks obtained by each bank on the basis of ratios under different measures of CAMEL Rating Model and then overall rank has been assigned to the banks based on their mean ranks on the basis of assigning highest overall rank based on least mean rank. The above table shows composite mean rank and overall rank of the selected banks as a whole on the basis of different ratios of five indicators under CAMEL Model. It is clearly evident from the table that on the basis of mean rank of 5 selected new generation banks and 5 selected old generation banks have been taken into consideration for study. The table depicts the group ranking of the new and old generation banks for the period of 2016 to 2020. It is found that HDFC bank from the new generation bank is given the 1st overall rank position for the lowest mean rank score of 9.92, due to its better performance in areas of, Assets management and increasing the profitability, followed by ICICI bank is given the 2nd overall rank position for the second lowest mean rank of 13.13, because of its good assets management. However the, 3rd, 4th, 5th, 6th, 7th, 8th, 9th overall rank positions for the next lowest values of mean rank scores (i.e. 14.43, 16.81, 16.94, 17.06, 17.28, 20.27 and 21.79 respectively) computed on final ranks under the different measures of CAMEL Ratings are achieved by Tamilnad Mercantile Bank, AXIS Bank, Kotak Mahindra bank, Lakshmi Vilas Bank, Yes bank, Karur Vysya bank and Federal Bank. Whereas South Indian bank holds the bottom most rank with 10th overall composite ranking average of 27.13 due to poor Capital Adequacy, Asset management and Management Quality of the bank. If we see the overall performance analysis of the selected banks, it has been found that most of the new generation banks especially HDFC bank and ICICI bank are the better performer than the selected old generation banks due to its better assets quality, management competency and earnings ability. On the other hand old generation banks (except Tamilnad Mercantile bank) are not performing better ever after sufficient capital adequacy and better liquidity. South Indian Bank needs to improve its assets quality.

Findings of Overall Analysis based on CAMEL Model

The overall ranking analysis has been made by computing composite mean rank of all parameters of CAMEL model and overall rank of the banks. It is found that HDFC bank from the new generation bank is given the 1st overall rank position for the lowest mean rank score of 9.92, due to its better performance in areas of, Assets management and increasing the profitability, followed by ICICI bank is given the 2nd overall rank position for the second lowest mean rank of 13.13, because of its good assets management. Whereas South Indian bank holds the bottom most rank with 10th overall composite ranking average of 27.13 due to poor Capital Adequacy, Asset management and Management Quality of the bank. It has been found that most of the new generation banks especially HDFC bank and ICICI bank are the better performer than the selected old generation banks due to its better assets quality, management competency and earnings ability. On the other hand old generation banks (except Tamilnad Mercantile bank) are not performing better ever after sufficient capital adequacy and better liquidity. South Indian Bank needs to improve its assets quality.

Suggestions

- New and old generation banks' management departments should develop good financial practices and policies. They should first consult with financial advisors to see what they think about exacting practices and what their opinions are on practices that are linked to the bank's financial progress. The bank's growth will be aided by this presence.
- Both new and old generation banks offer services to customers; technology is civilizing itself every day, and now technology is driving workers to better themselves in order to serve customers; much of this can be accomplished by management strategies and employee fulfillment. Customers can get up-to-date technology-based offerings from the banks.

Conclusion

CAMEL rating model plays a crucial role in the supervisory process and in identify the weakened banks. In the present study I have examined the performance of the selected New & Old Generation Banks on the basis of CAMEL model for the period 2016 to 2020. The results show that new generation banks outperform of old generation banks get first, second, fourth and fifth ranks goes to the credit of all the selected new generation banks. In the case of old generation bank Tamilnad Mercantile bank got third rank. Thus, it is concluded by considering the estimated ratios, the new generation banks have been enjoying a better financial health than the old generation banks during the study period. Hence, it could be inferred that the old generation banks have to pay attention to improve the financial performance in the future.

References

Bharathi, B.Y. (2007), Indian Banks: Banking on Growth, Chartered Financial Analyst, Dec, pp.100-101.

Bhatnagar, R.G (1995), Challenge of Banking in 1990s: Need for Upgrading Banking Technology, SBI Monthly Review Vol. XXXI, No.11, November 1992, pp.547-555.

Bhiryani, Harsha (2017), "Performance Analysis through CAMEL model rating A Comparative study of Selected Public and Private Sector banks in India". (Ph.D) Thesis, Jiwaji University.

Chowdhury, A., (2002). Politics, Society and Financial Sector Reform in Bangladesh. International Journal of Social Economies, 29(12), 963-988.Development 2004.

http://www.indianmirror.com/indianindustries/banking.htmlhttp://www.ethiopianreview.com/2007/Final%20Paper%20Dhansukodi.ht

http://www.researchandmarkets.com/reports/4020/indian_banking_industry

John Raja, (2005). Corporate governance and performance Indian banking system. IBA Bulletin, Vol: 24 (3), 152-157.

Khadija N. Ruwala (2021), "A Study Of Relative Performance Through Camel Model Of Old Private Sector Banks And New Private **Sector Banks In India**". **(Ph.D) Thesis, Veer Narmad South Gujarath University.**

Maghyereh.A (2003), The Effect of Financial Liberalization on the, Efficiency of Financial Institutions: The Case of Jordanian Commercial Banks, Social Science Research Network, Oct.2003.

Moneycontrol.com.

www.shodhganga.inflibnet.ac.in

 ISSN: 3048-5320 (Online)

The Effect of Green Human Resource Management Practices on Pro-environmental Behavior in Manufacturing Industry

Mr. Zerihun Kinde,
Associate Professor of Management, College of Finance, Management and Development, Ethiopian Civil Service University,
Addis Ababa, Ethiopia

Abstract

Purpose: The current study aimed to examine the role of green human resource management practices in promoting pro-environmental behaviors in the manufacturing sector of Ethiopia.

Design/methodology/approach: An explanatory design with deductive approach and quantitative method was employed since it followed the positivism research paradigm. A self-administered questionnaire survey was used to collect data from 351 employees of large scale manufacturing companies in Amhara Regional State. The study employed structural equation modeling approach with AMOS 23.0 to test the hypothesized model.

Findings: The results of this investigation disclosed that green human resource management practice has a significant and positive effect on pro-environmental behaviors in large scale manufacturing companies. Besides, green recruitment and selection, performance management appraisal, training and development, reward and compensation, and empowerment have a significant and positive effect on pro-environmental behaviors.

Originality/Value: The study revealed that the green empowerment influences pro-environmental behavior strongly, which is a new contribution to the existing literature of human resource management. This dimension can provide new dimensions to design green human resource management which is based on environmental sustainability paradigm. This can strengthen the organizational capabilities aiming to increasing pro-environmental behaviors in order to have a deepˇseated environmental conservation and protection strategy.

Keywords: Green Human Resource Management; Pro-environmental Behavior; Manufacturing Industry

Introduction

The journey towards realizing sustainable growth and development is achieved if a given nation can put its optimum effort in developing and transforming the manufacturing industry (Stijns, 2005). In this twenty-first century, developing the manufacturing sector remains relevant to poor countries given the fact that it plays an insightful role for poverty reduction and sustainable economic growth (Naude & Szirmai, 2012). The same case happens in the Ethiopian context as it has been focusing on ensuring rapid, sustainable and broad-based growth through enhancing productivity of manufacturing and agriculture, improving quality of production and stimulating competition in the economy (NPC, 2016).

In this days, the only certainty is uncertainty, manufacturing industry running in these dynamic and competitive business scenarios need to have the sure source of core competencies, like greening human resource practices (Florida & Davison, 2001) as such practices become to be a means of improving green employee behavior (Paille & Boiral, 2013), and then such pro- environmental behavior can also realize social, economic and environmental performance of the manufacturing companies (Wagner, 2005). Consequently, organizations need to create encouraging environments for managing economic and environmental performances, looking the dynamic situations through having environmental oriented values (Ferreira *et al*., 2010).

In the same vein, there is a growing awareness that many serious environmental problems threatening the planet is, at least to some extent, associated with the human actions (Nordlund & Garvill, 2002). Hence, elucidating motives and determinants relating to pro-environmental behaviour is of paramount importance for changing human behaviors towards an environmentally responsible direction (Nguyen *et al*., 2016), and then companies can maintain their competitive advantages within this continuously changing business world (Szirmai & Verspagena, 2015). In an effort to do this, researchers have sought to understand the influence of various factors on pro-environmental behaviour in the manufacturing industry (Naude & Szirmai, 2012) as environmental sustainability is best applicable in this sector (Tseng *et al*., 2013).

Employees play an important role in developing the corporate greening by performing a wide range of pro-environmental behaviors (Lulfs & Hahn, 2013). This happens due to the fact that irreversible climate changes, prevalence of environmental pollution, and resource limitations have been increased at an alarming speed (Steg *et al.*, 2014). Due to this, organizations around the world start to implement various pro-environmental initiatives (Zibarras & Coan, 2015).

Regardless of the growing interest in studying environmental management and its potential benefits to industry success, few studies have examined the antecedents of employees' pro- environmental behaviors (Rehman *et al*., 2016). Thus, further scientific investigations need to be conducted pertaining to examining the different drivers of greening the behaviors of employees in the manufacturing sector (Zhan *et al*., 2016; Saeed *et al*., 2019). Despite various factors have been identified as the determinant of pro-environmental behaviour in different contexts (Rehman *et al*., 2016), determining the role of green human resource management practices in promoting employee‟s greening behavior in the manufacturing sector needs to have more scientific research (Zhan *et al*., 2016; Saeed *et al*., 2019).

The manufacturing sector is considered to be a source of various forms of environmental pollution in both developed and developing countries, which need its managerial activities to be critically assessed, monitored and rectified (Rehman *et al*., 2016). Because of the important role and effects of manufacturing sector on economic growth of nations (Szirmai & Verspagena, 2015; Marconi *et al*., 2016), there is an increasing need for adopting effective environmentally friendly practices that can mitigate environmental impacts of this vital sector. As a result, experts and academics need to invest their valuable resources in conducting scientific investigations related to environmental issues and sustainable development (Dumont *et al*., 2017). Despite the manufacturing sector becomes to be a potential source of environmental problems (Opatha & Arulrajah, 2014), authors are not giving a critical attention (Masri & Jaaron, 2017). Accordingly, further scientific investigation related to environmental issues in the manufacturing sector becomes to be worthwhile (Jabbour & Jabbour, 2016), aims to provide concepts and theories for HR managers in applying and developing GHRM for the improvement of pro-environmental behaviors.

Consequently, this paper aims to provide the below contributions in the manufacturing sector: first, the current study is helpful to understand how green human resource management practices can influence pro-environmental behaviors; second, this study helps one‟s understanding pertaining to how each dimensions of green human resource management practices can improve employee‟s greening behaviors. Accordingly, this research paper was planned to examine the role of green human resource management practices in promoting pro-environmental behaviors in the manufacturing industry.

Literature Review

Conceptual Framework

Employee's pro-environmental behavior can be defined as „willingness to engage in pro- environmental activities‟ (Scherbaum *et al*., 2008). This behavior essentially contributes to promote environmental performance (Vicente-Molina *et al*., 2013). As experts of the area clearly put that the behavior of conserving, work sustainability, avoiding harm, influencing others, and taking initiative are the manifestation of pro environmental behavior (Paille & Boiral, 2013). The participation of employees to address environmental issues and engage in pro-environmental behaviors is considered as an effective strategy to become environmentally responsible organization and enhance environmental performance (Bissing-Olson *et al*., 2012). Previous researchers have determined the different factors of employee‟s greening behavior (Rehman *et al*., 2016); including green human resource management practices in the manufacturing sector (Saeed *et al*., 2019).

Green Human Resources Management (GHRM) refers to applying the human resource management practices to reinforce environmentally sustainable practices, and increase employee‟s commitment on the issues of environmental sustainability (Masri & Jaaron, 2017). In a very similar way, green human resource management can also be understood as HRM practices with the intention to promote environment-friendly use of resources, which will reinforce the cause of environmental performance in general, and will increase employee awareness and commitments on the issues of environmental management in particular (Tang *et al*., 2018).

Studies that consider green HRM's multidimensional nature took into account its diverse-related dimensions (Tang *et al*., 2018). Mishra (2017) asserts that green HRM is implemented throughout the HRM process of planning, recruitment and selection, training and development, and compensation and appraisal, with an aim to maintain green objectives. The emergence of green HRM includes the extent of improving the social (i.e., work-life balance) and economic well-being (i.e., sustain profits) beside awareness toward environmental concern (i.e., reduced wastes). Renwick *et al.* (2013) suggested that recruiting and selecting, training and developing environmental knowledge, performance management and appraisal, reward and compensation, and employee empowerment are considered as the constituents of green HRM. The present study employed the Renwick *et al.*"s framework as this model has been considered as relatively feasible to measure green human resource management practices in the manufacturing industry (Masri & Jaaron, 2017).

Inherently, human irresponsible activities at work can cause environmental degradation (Ones & Dilchert, 2012). Green HRM practices are used to stimulate employees" responsible behavior to preserve the environment (Cherian & Jacob, 2012). Furthermore, Jackson and Seo (2010) asserted that companies which pay attention to the greening of human factors may be more productive, thus gaining a competitive advantage (Cherian & Jacob, 2012). The manufacturing of products with lower environmental impact requires the support of HRM (Govindarajulu & Daily, 2004). This has been asserted by Jabbour and Santos (2008) who stated that superior pro- environmental behavior outcome requires HRM practices that support the whole implementation and maintenance of environmental management systems in the given organization.

Green HRM practices result in greater efficiencies, lower costs and create an atmosphere of better employee relationship (Lulfs & Hahn, 2013; Tang *et al*., 2018), which in turn helps organizations to operate in an environmental-friendly manner (DuBois & Dubois, 2012; Zibarras & Coan, 2015). Green HRM practices, such as planning corporate environmental management initiatives/programs/activities, setting green targets, goals and responsibilities, making new employees familiar with greening efforts of the organization and encourage them to engage in green interpersonal citizenship behavior, providing regular feedback to the employees or teams to achieve environmental goals or improve their environmental performance, and creating opportunities to the employee to involve and participate in green suggestion schemes, are likely to increase employee pro-environmental cognition (Renwick et al., 2013; Saeed *et al*., 2019).

Tseng *et al.* (2013) suggest that designing jobs and work settings that encourage employees to learn about the environment and providing regular and frequent trainings about environmental management systems increase an employee's concern and motivation to engage in pro- environmental activities. Nishii *et al.* (2008) assert that employees perceive their organization's HRM practices as a determinant of their work attitudes and behaviors. Therefore, if an organization incorporates greening in its human policies, employees would display behaviors that resonate and act in accordance with the organization's green policies (Renwick *et al*., 2013; O'Donohue & Torugsa, 2016). Due to these worthwhile contributions of GHRM practices on the enhancement of pro-environmental behaviors, scholars and experts start to turn their attention to the role of greening HR practices in promoting the pro-environmental behaviors (Mishra, 2017; Tang *et al*., 2018), and this topic becomes quite critical in the manufacturing industry (Masri & Jaaron, 2017).

Although there is an increasing extent of the substantial literature about GHRM in developed countries (Jackson & Seo, 2010; Jackson *et al*., 2011; Renwick *et al*., 2013; Renwick *et al*., 2016, Ehnert *et al.*, 2016; Jabbour & Jabbour, 2016; O'Donohue & Torugsa, 2016; Mishra, 2017; Masri & Jaaron, 2017; Tang *et al*., 2018), there is still uncertainty about what GHRM practices are needed for an effective enhancement of green employee behaviors in developing countries, and how these practices can be connected and incorporated in workplace to help the organization achieve green corporate culture and maximize environmental performance (Cherian & Jacob, 2012; Sathyapriya *et al*., 2013; Jabbar & Abid, 2014; Ahmad, 2015; Haddock-Miller *et al.*, 2016); paying little attention to prioritizing and validating such practices that can operationalize activities necessary for environmental sustainability in the manufacturing industry (Masri & Jaaron, 2017).

In fact, several researchers discussed the lack of empirical studies from the manufacturing sector in the developing countries (Zhan *et al*., 2016; Rehman *et al*., 2016). The value of these studies also increases if they are carried out in a challenging environment of a developing country, like Ethiopia. However, in addition to the research gap identified earlier, the novelty of this study is twofold. First, this paper presented a first study of its kind in Ethiopia, and among very few studies exploring GHRM in the context of developing countries as Jabbar and Abid (2014), Mishra *et al.* (2014), and Bhutto and Auranzeb (2016) argued. Second, despite the major impacts of political instability and movement obstacles, Ethiopia is an active member in international agreements on environmental issues to implement that contributes to meeting international environmental priorities (EPA, 2010).

Thus, this study proposed the below hypotheses:

H_1: Green Recruitment and Selection (GRS) has a significant and positive effect on pro- environmental behavior (PEB).

H_2: Green Performance Management Appraisal (GPMA) has a significant and positive effect on pro-environmental behavior (PEB).

H3: Green Training and Development (GTD) has a significant and positive effect on pro- environmental behavior (PEB).

H_4: Green Reward and Compensation (GRC) has a significant and positive effect on pro- environmental behavior (PEB).

H_5: Green Empowerment (GE) has a significant and positive effect on pro-environmental behavior (PEB).

Based on above discussion, the study proposed research model as per the above empirical as well as theoretical frameworks in Figure 1.

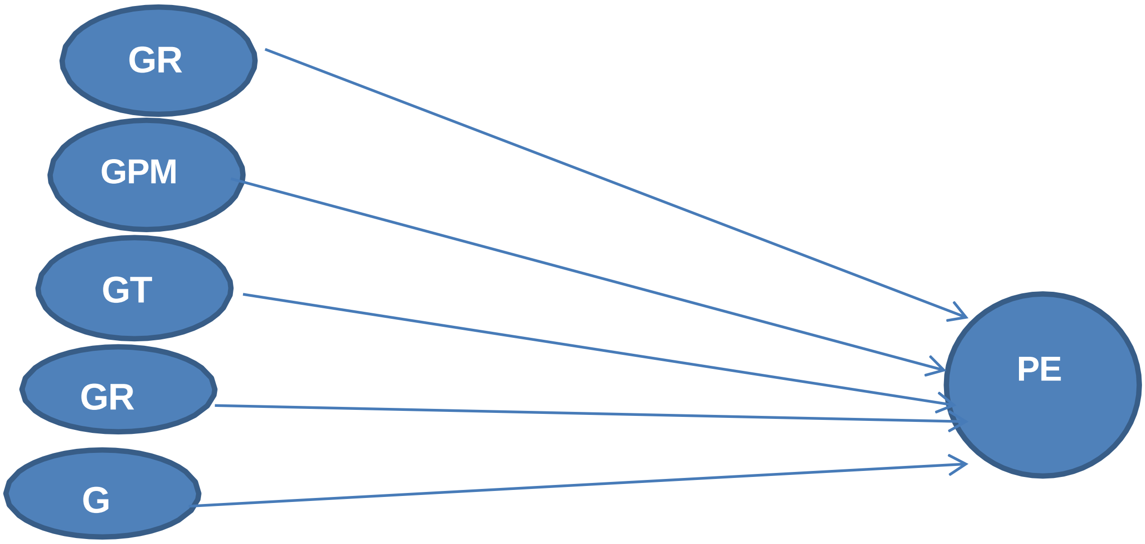


Figure 1: Conceptual Framework; Source: Compiled from Previous Literature

Methods

The study focused on examining the role of green human resource management practices in promoting pro-environmental behavior in the large manufacturing companies through survey strategy with explanatory research design. The study employed a self-administered standardized questionnaire as an instrument of data collection. All latent constructs were measured with multi- item scales with a five-point Likert scale (ranging from 1= strongly disagree to 5 = strongly agree).

Population and Sampling

The current study stratified manufacturing industry into different companies by using Stratified Sampling Technique. In Amhara regional State, manufacturing sectors were grouped in to three, namely: *Agro-processing, wood & Steel, and Textile & Leather* as per trade, industry and market office. This technique was employed due to the fact that these latent research variables (i.e., GHRM and proenvironmental behavior) are influenced by the types of sectors, and it has been argued that differences in types (like food, beverage, steel, and others) can have a significant difference on GHRM (Masri & Jaaron, 2017) and proenvironmental behavior (Nguyen *et al*., 2016). Besides, in each sector there are different companies in each group and were considered as sub-strata. Thus, the researchers employed a proportionate stratified sampling technique, and respondents were selected randomly in each stratum. In order to select the sampled respondents, simple random sampling technique was employed, and for interview part, purposive sampling was used. The survey was conducted on 85 *Agro-processing, wood & Steel, and Textile & Leather* companies with 386 respondents, however only 351 responses were used with a response rate of 91 percent.

Co-variance based Structural Equation Modeling (CB – SEM) was applied in Analyzing Moment of Structures (AMOS) version 23.0 for data analysis. A pilot test for the research instruments with 50 initial questionnaires were distributed to employees of large scale manufacturing companies for checking reliability. The values of Cronbach‟s alpha for Green Recruitment and Selection (GRS); Green Performance Management Appraisal (GPMA), Green Training and Development (GTD), Green Reward and Compensation (GRC), Green Empowerment (GE) as a dimension of Green Human Resource Management Practices (GHRMP); and Pro-environmental Behavior (PEB) latent constructs were 0.81, 0.80, 0.88, 0.90, 0.77, and 0.66 respectively. Therefore, the scale reliability of each construct was established since all values for each latent construct exceed 0.65.

Results

Measurement Model Assessments

The demographic details of respondents used in the survey reveals that majority of respondents in terms of gender, marital status, academic qualification, work experience, and sector type were male, unmarried, BA/Bsc, less than 5 years, and agro-processing respectively. Table 1 explains the full details of large scale manufacturing companies:

Table 1: Demographic Details of Respondents (N = 351)

Characteristics	Group	N=351	
		Frequency	Percentage (%)
Gender	Male	195	55.6
	Female	156	44.4
Marital status	Single	185	52.7
	Married	144	41.0
	Divorced	22	6.3
Academic qualification	Diploma (10+3)	136	38.7
	BA/Bsc	186	53.0
	MA/Msc	29	8.3
Experience	$\leq$ 5 year	209	59.5
	6-10 years	106	30.2
	11-15 years	20	5.7
	$\geq$ 16 years	16	4.6
Sector type	Agro-processing	121	34.5
	Wood & Steel	116	33.0
	Textile & Leather	114	32.5

Source: Authors‟ Observation

Structural Equation Modeling approach was employed to test the research hypotheses. This approach is a two-stage multivariate analysis tool in which confirmatory factor analysis needs to be used in evaluating the measurement model and then the structural model proceeds (Kline, 2011). Accordingly, this study assessed its measurement model through confirmatory factor analysis a head of evaluating the structural model and testing the hypotheses.

The first step in measurement model is that evaluating the preliminary assumptions (Hair *et al*., 2010). Hair *et al*. (2010) suggested that a good model fit is maintained if the chi-square statistics is insignificant; the value of Normed X2 is less than 5.00; RMSEA values less than 0.08; the values of GFI, CFI, and TLI are greater than 0.90. Table 1 (see in the appendix) shows that X2

/DF= 8.35, RMSEA= 0.145, TLI= 0.86, CFI= 0.90, GFI= 0.91. Accordingly, the measurement model showed a better fit to the data considering all the loading items as shown in Table 2.

Table 2: Measurement Model Fit Indices

Model	X^2	df	P	X^2/df	GFI	CFI	TLI	RMSEA

 ISSN: 3048-5320 (Online)

Final Model	1747.416	512	0.000	3.413	0.91	0.90	0.86	0.083

Source: Author‟s Calculation

Byrne (2009) noted that unidimensionality is assessed by using the standardized factor loading of items. Amos 23 results demonstrate that the respective loadings of items for GSR, GPMA, GTD, GRC, GE and PEB were greater than 0.60 (see fig.2). Thus, in line with the criterion value suggested by Byrne (2009), items of their respective factors were loaded satisfactory. The internal consistency of construct is evaluated through the help of composite reliability with a minimum value of 0.70 and above (Hair *et al*., 2010). Pertaining to the composite reliability, values of all constructs are greater than 0.70. Hence, the reliability of each construct is established. Hair et al. (2010) noted that convergent validity is maintained if the values of AVE and CR are more than 0.50 and 0.70 respectively. In case of the values of the average variance extracted, all study factors are more than 0.50, and composite reliabilities of constructs are also greater than 0.70. Accordingly, these values confirmed that the convergent validity of constructs is established as per authors‟ calculation In case of discriminant validity, results demonstrate that the respective Square Root value of AVE for each construct exceed all correlations between constructs (Fornell & Larcker, 1981). In addition, all correlation values between factors are less than 0.85 as per the criterion suggested by Hair *et al*. (2010). Thus, these values confirmed that the study factors are different to each other.

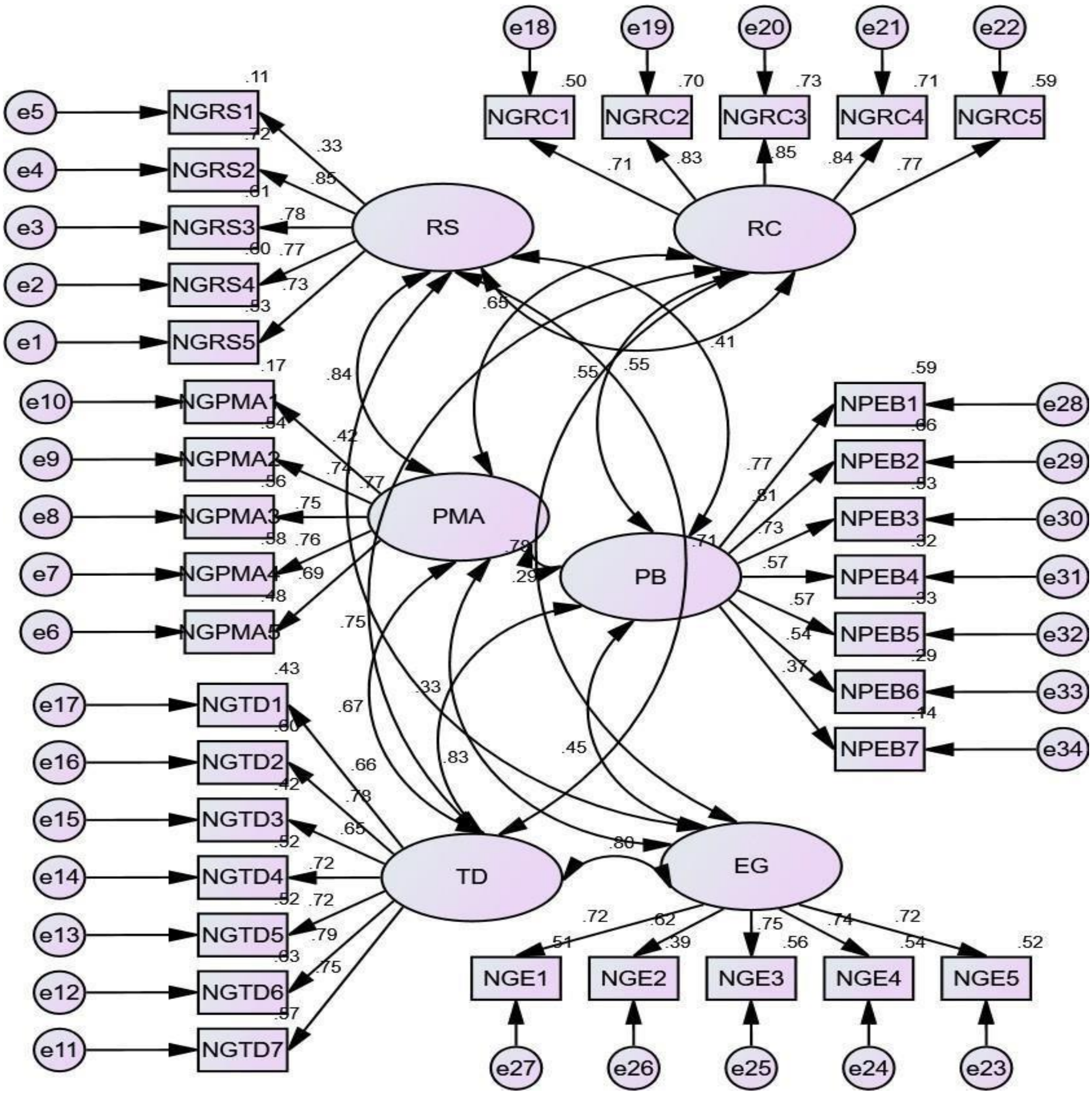


Figure 2: Measurement Model

Structural Model Assessment
Like to the measurement model, the structural model fit is also evaluated by employing the major fit indices as the criterion suggested by Hair *et al.* (2010). SEM result demonstrates that RAMSEA = 0.145, TLI= 0.86, CFI= 0.90, GFI= 0.91, X2 /DF= 8.35 and chi-square statistics is insignificant. Table 3 represents the structural model assessment of the sample data.

Table 3: Structural Model Fit Indices

Model	X^2	df	P	X^2 /df	GFI	CFI	TLI	RMSEA
Final Model	158.373	19	0.000	8.35	0.91	0.90	0.86	0.145

Source: Author"s Calculation

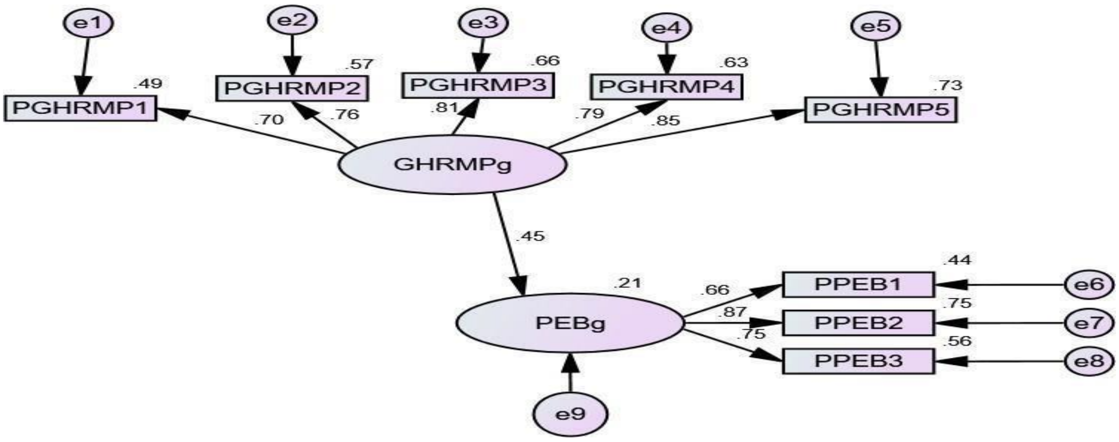


Figure 3: Structural Model

Regression Weights and Coefficient of Determination
Measuring the direct effect of green human resource management practices on proenvironmental behavior in large scale manufacturing companies was the main objective under the present study. SEM with AMOS 23.0 was employed to examine this objective. This study evaluated the model fit of this hypothesized structural model before testing the proposed hypothesis by taking the path coefficients (β), and their associated t-values or critical ratio (C.R). In this case, to consider the coefficients to be significant at $p<0.05$, a C.R value of 1.96 or more was used as the criterion suggested by Hair *et al.* (2010). Decisions related to supporting or rejecting hypothesis was done at the end as well.

This hypothesis was focused on testing the direct effects of green human resource management practices on proenvironmental behavior. Figure 3 demonstrates that green human resource management practice has a significant and positive effect on proenvironmental behavior (β=0.45, CR=6.560, P<0.001). With regard to the explaining power, green human resource management practices explained 21 percent (R^2 =0.21) of the variance in proenvironmental behavior whereas the rest 79 percent was related to other variables, which were not included in the present study.

Consequently, it was proposed that green human resource management practice has a direct and significant positive influence on proenvironmental behavior in large scale manufacturing industry. Based on the AMOS results of this study, this hypothesis was supported.

Conclusion and Implications
AMOS results show that green human resource management practice has a significant and positive correlation with proenvironmental behavior. It is concluded that the different practices of green human resource management in large scale manufacturing industry can have a significant covariance with employee"s proenvironmental behavior.

This investigation has implications for managers in the manufacturing sector. The result of this paper offers a reasonable insight to managers in enabling them to face the challenges of a dynamic business situation. A continuously changing scenario results in intensified competition within the market. In order to be competent enough in this horrible financial market, the manufacturing industry needs to promote employee‟s greening behavior through practicing green recruitment and selection, green performance management appraisal, green training and development, green reward and compensation, and green empowerment. These greening practices, in turn, can improve the competitiveness of the manufacturing sector within terrible environments.

This study provides theoretical contributions to the existing body of knowledge at least in two ways. First, it enhances our theoretical understanding of green human resource management practices and its effect on the pro-environmental behavior in the manufacturing context. Second, this research contributed to the green human resource management literature through revealing how the different green human resource management is strengthened, which in turn promotes employee‟s greening behavior in the large scale manufacturing companies.

Limitation and Future Scope of the Study

Despite this paper contributes to the body of knowledge pertaining to the role of green human resource management practices in promoting pro-environmental behavior of employees in large scale manufacturing companies, the following limitations were identified and then, future researchers are directed. First, this study was limited to the context of developing countries in terms of geographical area, specifically in Ethiopia. As difference of culture may lead to different influences on study results (Hofstede *et al*., 2010), this finding will not be generalized to other countries. Consequently, future studies can validate this model in different nations. Second, the present study was focused on only green human resource management practices, but other related variables like employee‟s biospheric value was not included. Therefore, future studies can explore a study to examine the mediating roles of employee‟s biospheric value in linking green human resource management practices to pro-environmental behavior in the manufacturing industry.

References

Amare M. (2015). Overview of Manufacturing Industries in Ethiopia, Industrial Engineering Letters,

Ahmad, S. (2015). Green human resource management: policies and practices. *Cogent Business & Management*, 2, 1030817.

Ajzen, I. (1991). THE THEORY OF PLANNED BEHAVIOR. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211.

Becker, B. E., & Huselid, M. A. (2006). Strategic human resources management: Where do we go from here? *Journal of Management, 32*(6), 898–925.

Bhutto, S.A., & Auranzeb (2016). Effects of green human resources management on firm performance: an empirical study on Pakistani firms. European Journal of Business and Management. 8, 119-125.

Bissing-Olson, M. J., Zacher, H., Fielding, K. S., & Iyer, A. (2012). An intraindividual perspective on pro-environmental behavior at work. *Industrial and Organizational Psychology: Perspectives on Science and Practice,* 5, 500-502.

Bissing-Olson, M.J., Iyer, A., Fielding, K.S., & Zacher, H. (2013). Relationships between daily affect and pro-environmental behavior at work: the moderating role of pro-environmental attitude", *Journal of Organizational Behavior,* 34(2), 156-175.

Bryman, A. (2012). Social research methods, Oxford, New York, Oxford University Press.

Cherian, J. P., & Jacob, J. (2012). A study of green HR practices and its effective implementation in the organization: a review. *International Journal of Business and Management, 7,* 25–33.

Clarkson, M. B. E. (1995). A stakeholder framework for analyzing and evaluating corporations. *Academy of Management Review,* 20(2), 92-117.

Creswell, J., (2003). Research design: Qualitative, Quantitative and Mixed Methods, 2nd ed., Sage Publications, California.

DuBois, C. L., & Dubois, D. A. (2012). Strategic HRM as social design for environmental sustainability in organization. *Human Resource Management*, *51*(6), 799–826.

Dumont, J., Shen, J., & Deng, X. (2017). Effects of green HRM practices on employee workplace green behavior: The role of pro-environmental psychological climate and employee green values. *Human Resource Management*, *56*(4), 613–627.

Ehnert, I., Parsa, S., Roper, I., Wagner, M., & Muller-Camen, M. (2016). Reporting on sustainability and HRM: a comparative study of sustainability reporting practices by the world's largest companies. *The International Journal of Human Resource Management*. 27, 88-108.

European Commission (2001). Prompting a European Framework for Corporate Social Responsibility, Green Paper and COM 366, Brussels.

Felipe, F.d.A. (2012). Do I look good in green? a conceptual framework integrating employee green behavior, impression management, and social norms. *Amazon, Organizations and Sustainability*, 2(3), 7-23.

Florida, R., & Davison, D. (2001). Gaining from Green Management: Environmental Management Systems inside and outside the Factory. *California Management Review*, 43 (3), 64-84.

Galdeano-Gomez, E., Cespedes-Lorente, J., & Martinez-del-Rio, J. (2008). Environmental performance and spillover effects on productivity: evidence from horticultural firms. *Journal of Environmental Management*, 88(4), 1552-1561.

Govindarajulu, N., & Daily, B. F. (2004). Motivating employees for environmental improvement.*Industrial Management & Data Systems*, 104, 364–372.

Haddock-Millar, J., Chandana, S., & Muller-Camen, M. (2016). Green human resource management: a comparative qualitative case study of a United States multinational corporation. *The International Journal of Human Resource Management*, 27,192-211.

Jabbar, M.H., & Abid, M. (2014). GHRM: Motivating Employees towards organizational environmental performance. *MAGNT Research Report*, 2, 267-278.

Jabbour, C. (2011). How green are HRM practices, organizational culture, learning and teamwork? A Brazilian study. *Industrial and Commercial Training*, *43*(2), 98–105.

Jabbour, C. J. C., & Jabbour, A. B. L. de S. (2016). Green human resource management and green supply chain management: linking two emerging agendas. *Journal of Cleaner Production*, 112, 1824-1833.

Jabbour, C. J. C., de Sousa Jabbour, A. B. L., Govindan, K., Teixeira, A. A., & de Souza Freitas, W. R. (2013). Environmental management and operational performance in automotive companies in Brazil: The role of human resource management and lean manufacturing. *Journal of Cleaner Production*, *47*, 129–140.

Jabbour, C. J. C., Santos, F. C. A., & Nagano, M. S. (2008). Environmental management system and human resource practices: Is there a link between them in four Brazilian companies? *Journal of Cleaner Production*, *16*(17), 1922–1925.

Jackson, S. E., & Seo, J. (2010). The greening of strategic HRM scholarship. *Organization Management Journal*, 7, 278-290.

Jackson, S. E., Renwick, D. W., Jabbour, C. J., & Muller-Camen, M. (2011). State-of-the-art and future directions for green human resource management: Introduction to the special issue. *German Journal of Human Resource Management*, *25*(2), 99–116.

Kedia, B.L. & Mukherji, A. (1999) Global managers: developing a mindset for global competitiveness. *Journal of World Business*,34 (3), 230–251.

Kjaerheim, G. (2005). Cleaner production and sustainability. *Journal of Cleaner Production, 13*(4), 329–339.

Kothari, C., (2004). Research Methodology: Methods and Techniques, 2nd ed., New Delhi, New Age International (P) Ltd.

Klein, R.M., Ones, D.S., Wiernik, B.M., Dilchert, S., D‟Mello, S., & Hill, L. (2012). Understanding the causes of environmentally responsible and irresponsible behavior at work, paper presented at the Sustainability Preconference of the Annual Conference of the Society for Personality and Social Psychology, CA.

Kline, R. B. (2015). Principles and practice of structural equation modeling, 4th ed. New York: Guilford Press.

Lopez-Gamero, M. D., Molina-Azorin, J. F., & Claver-Cortes, E. (2009). The whole relationship between environmental variables and firm performance: Competitive advantage and firm resources as mediator variables. *Journal of Environmental Management*, 90, 3110–3121.

Lulfs, R., & Hahn, R. (2013). Corporate greening beyond formal programs, initiatives, and systems: A conceptual model for voluntary pro-environmental behavior of employees. *European Management Review, 10*(2), 83–98.

Marconi, N., Froes de Borja Reis, c., & de Araujoc, E.C. (2016). Manufacturing and economic development: The actuality of Kaldor‟s first and second laws. Structural Change and Economic Dynamics, 37, 75-89.

Masri, H.A., & Jaaron, A.A.M (2017). Assessing Green Human Resources Management practices in Palestinian manufacturing context: An empirical study, *Journal of Cleaner Production*.

Mishra, P. (2017). Green human resource management: A framework for sustainable organizational development in an emerging economy. *International Journal of Organizational Analysis, 25*(5), 762–788.

Mishra, R.K., Sarkar, S., & Kiranmai, J. (2014). Green HRM: innovative approach in Indian public enterprises. *World Review of Science, Technology and Sust. Development, 11, 26-42.*

National Planning Commission (2016). Growth and Transformation Plan II (GTP II) (2015/16- 2019/20), Addis Abeba, Ethiopia.

Naude, W. & Szirmai, A. (2012). The Importance of Manufacturing in Economic Development: Past, Present and Future Perspectives, Maastricht Economic and social Research institute on Innovation and Technology, Netherland.

Nishii, L. H., Lepak, D. P., & Schneider, B. (2008). Employee attributions of the "why" of HR practices: Their effects on employee attitudes and behaviors, and customer satisfaction. *Personnel Psychology*, *61*(3), 503–545.

O'Donohue, W., & Torugsa, N. (2016). The moderating effect of „Green‟ HRM on the association between proactive environmental management and financial performance in small firms. *The International Journal of Human Resource Management*, 27, 239-261.

Ones, D.S., & Dilchert, S. (2012). Environmental sustainability at work: a call to action. *Industrial and Organizational Psychology*, 5, 444-466.

Opatha, H.H.D.N.P., & Arulrajah, A. (2014). Green human resource management: simplified general reflections. *International Business Research*, 7, 101–112.

Paille, P., & Boiral, O. (2013). Pro-environmental behavior at work: Construct validity and determinants. *Journal of Environmental Psychology*, 36, 118-128.

Perron, G. M., Cote, R. P., & Duffy, J. F. (2006). Improving environmental awareness training in business. *Journal of Cleaner Production*, *14*(6–7), 551–562.

Rehman, M.A., Seth, D., & Shrivastava, R.L. (2016). Impact of green manufacturing practices on organisational performance in Indian context: An empirical study. *Journal of Cleaner Production*, 137, 427-448.

Renwick, D. W., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International Journal of Management Reviews*, *15*(1), 1–14.

Renwick, D.W.S., Jabbour, C.J.C., Muller-Camen, M., Redman, T., & Wilkinson, A. (2016). Contemporary developments in Green (environmental) HRM scholarship. The International Journal of Human Resource Management, 27, 114-128.

Saeed, B.B., Afsar, B., Hafeez, S., Khan, I., Tahir, M., & Afridi, M.A. (2019). Promoting employee's proenvironmental behavior through green human resource management practices. *Corporate Social Responsibility and Environmental Management*. 26,424–438.

Sammalisto, K., & Brorson, T. (2008). Training and communication in the implementation of environmental management systems (ISO 14001): A case study at the University of Gavle, Sweden. *Journal of Cleaner Production*, *16*(3), 299–309.

Sathyapriya, J., Kanimozhi, R., & Adhilakshmi, V. (2013). Green HRM - delivering high performance HR systems. *International Journal of Marketing and Human Resource Management*, 4, 19-25.

Saunders, M., Lewis, P., & Thornhill, A., (2012). Research Methods for Business Students. 6th ed., England, Pearson Education Limited.

Sauders, M., Lewis, P., & Thornhill, A., (2009). Research Methods for Business Students. England, Pearson Education Limited.

Sohn, S.Y., Joo, Y.G. & Han, H.K. (2007), Structural equation model for the evaluation of national funding on R&D project of SMEs in consideration with MBNQA criteria, Evaluation and Program Planning, 30, pp.10-20.

Sharma, S., & Gupta, N. (2015). Green HRM: an innovative approach to environmental sustainability. Proceeding of the Twelfth AIMS International Conference on Management. 2- 5 January, Calicut, India, 825-830.

Srinivas, K. M. (1995). Globalization of business and the third world: Challenge of expanding the mindsets. *Journal of Management Development*, 14(3), 26-49.

Starik, M., & Marcus, A. A. (2000). Introduction to the special research forum on the management of organizations in the natural environment: A field emerging from multiple paths, with many challenges ahead. *Academy of Management Journal*, 43, 539-546.

Steg, L., Bolderdijk, J. W., Keizer, K., & Perlaviciute, G. (2014). An Integrated Framework for Encouraging Pro-environmental Behaviour: The role of values, situational factors and goals. *Journal of Environmental Psychology*, *38*(0), 104-115.

Stijns, J. (2005). Natural Resource Abundance and Economic Growth Revisited, Resources Policy 30, 107-30.

Szirmai, A., & Verspagena, B. (2015). Manufacturing and economic growth in developing countries, 1950–2005. Structural Change and Economic Dynamics, 34, 46-59.

Tang, G., Chen, Y., Jiang, Y., Paille, P., & Jia, J. (2018). Green human resource management practices: Scale development and validity. *Asia Pacific Journal of Human Resources*, *56*(1), 31–55.

Teshome, A. (2014). Impacts of Manufacturing Sector on Economic Growth in Ethiopia: A Kaldorian Approach. *Journal of Business Economics and Management Sciences* Vol. 1(1).

Tseng, M. L., Tan, R. R., & Siriban-Manalang, A. B. (2013). Sustainable consumption and production for Asia: Sustainability through green design and practice. *Journal of Cleaner Production*, *40,* 1–5.

Veleva, V., & Ellenbecker, M. (2001). Indicators of sustainable production: Framework and methodology. *Journal of Cleaner Production*, *9*(6), 519–549.

Vicente-Molina, M. A., Fernández-Sáinz, A., & Izagirre-Olaizola, J. (2013). Environmental knowledge and other variables affecting pro-environmental behaviour: Comparison of university students from emerging and advanced countries. *Journal of Cleaner Production*, *61*,130–138.

Wagner, M. (2005). How to reconcile environmental and economic performance to improve corporate sustainability: corporate environmental strategies in the European paper industry. *Journal of Environmental Management* 76(2), 105-118.

Zhan, Y., Tan, K. H., Ji, G., Chung, L., & Chiu, A. S. (2016). Green and lean sustainable development path in China: Guanxi, practices and performance. *Resources, Conservation and Recycling*. http://dx.doi.org/10.1016/j.resconrec.2016.02.006 (in press).

Zibarras, L. D. & Coan, P. (2015). HRM practices used to promote proenvironmental behavior: a UK survey. International Journal of Human Resource Management, 26(16), pp. 2121-2142.

Zikmund, W., Babin, B., Carr, J., & Griffin, M. (2010). Business Research Methods. Eighth edition, Mason, OH: South-Western Cengage Learning.

Appendix I: Measurement Scale Used

Items		**Scale**				
A. Green Human Resource Management Practices						
S.N	**Green Recruitment & Selection**	1	2	3	4	5
1	In my organization, job description specification includes environmental concerns.					
2	My organization selects applicants who are sufficiently aware of greening to fill job vacancies.					
3	My organization includes environmental criteria in the recruitment messages.					
4	In this organization, job positions are designed that focus Exclusively on environmental management aspects of the organizations.					
5	My organization indicates or makes transparent its environmental performance (past and current) in recruitment messages.					
Green performance management and appraisal		1	2	3	4	5
1	Employees know their specific green targets,goals and responsibilities.					
2	Environmental behaviors and contributions to environmental management are assessed and included in performance /appraisal indicators and recorded.					
3	This organization provides regular feedback to the employees or teams to achieve environmental goals or improve their environmental performance.					
4	This organization establishes environmental management information system and environmental audits.					
5	This organization introduces or formally evaluates all employees' green job performance (as far as possible).					
Green training and development		1	2	3	4	5
1	My organization provides environmental training to the organizational members to increase environmental awareness.					
2	Takes into account the needs of environmental issues when training requirements are analyzed.					
3	All training materials are available online for employee to reduce paper cost.					
4	Environmental training is a priority when compared to other types of company"s training.					
5	My organization provides environmental education to the workforce.					
6	My organization applies job rotation to train green managers of the future.					

ISSN: 3048-5320 (Online)

7	My organization provides opportunities to everybody to be trained on environmental management aspects.					
Green reward and compensation		1	2	3	4	5
1	Environmental performance is recognized publicly (awards, dinner, and publicity).					
2	My organization applies financial rewarding for good employee environmental performance.					
3	My organization applies non-financial rewarding for good employee environmental performance.					
4	My organization uses rewards for innovative environmental initiative/performance.					
5	My organization communicates its employee‟s environmental excellence.					
Green empowerment		1	2	3	4	5
1	My organization recognizes employees as a key stakeholder in environmental management.					
2	My organization provides opportunities to negotiate with management about green workplace agreement.					
3	My organization introduces green whistle-blowing and help-lines.					
4	My organization offers workshops or forums for staffs to improve environmental behavior and exchange their tacit knowledge.					
5	Involves employees in formulating environmental strategy.					
B. Proenvironmental behavior		**1**	**2**	**3**	**4**	**5**
1	I make suggestions and bring new ideas about environmentally friendly practices to environmental committees.					
2	At work, I take part in environmentally friendly programs.					
3	I share my knowledge about the environment with co-workers.					
4	At work, I question practices that are likely to hurt the environment.					
5	In my work, I weigh the consequences of my actions before doing something that could affect the environment.					
6	At work, I perform environmental tasks that are not required by my company.					
7	At work, I avoid wasting resources such as paper, electricity or water.					