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Product Innovation a Tool for Sustaining a Firm's Competitiveness
Globally through Customer Satisfaction.



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Product Innovation a Tool for Sustaining a Firm's Competitiveness Globally through Customer Satisfaction.

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ABSTRACT

Purpose: Innovation has become an element of strategic importance for sustaining products because the cost of R&D including marketing activities is reduced but levels of consumption and the company's sales and profits increase. Rapid shifts in consumer tastes and preferences present a challenge for businesses looking to gain a competitive edge in satisfying their clientele and winning their loyalty through innovative product development. The objective of the study was to find out whether innovation (continuous) is efficient in achieving customer satisfaction that results in increasing a firm's competitive advantage in the market globally. In this paper the researcher examined the factors that sustains customer satisfaction due to innovation and make it a necessity for achieving competitive advantage.

Methodology: A population of 300 samples were drawn from both industry and customers. Questionnaires were administered on the respondents and interviews held for the staff and management for the selected companies. Purposive and convenient sampling techniques were used. The regression method of analysing data was employed.

Findings: The findings of the study reveal that innovation particularly (continuous innovation) is relevant to companies because it is tailored towards the changing tastes, preferences and culture of the market. It also can capture the non-inclusive customers, stimulate immediate trial and restore previously purchased patterns. Customer satisfaction boosts revenue, fosters customer loyalty, ensures business continuity, and establishes the company's competitive advantage.

Unique Contribution: Innovation (continuous) occasioned by customer satisfaction is most often successful because it rides on the publicity and the market advantages the earlier version of the brand enjoyed and reduces the cost of R&D than totally new-to-the-world products (discontinuous innovation). Product innovation of this nature has a shorter period between conception and introduction.

Keywords: *Customer satisfaction, competitive advantage, consumer, product innovation, sustainability.*

1.0 BACKGROUND OF THE STUDY

1.1 Introduction

Product sustainability has emerged as a key topic of study in several management studies disciplines as products increasingly deal with issues including obsolescence, shorter life cycles, or takeover by more powerful rivals. The study aims to create a holistic strategy that tackles product competitiveness and longevity globally by suggesting tactics to stop brand deterioration and improve brand sustainability. The capacity to do better than others in the same sector or market results from resources and traits, known as a competitive advantage (Michael, 1985). For a company's survival and prosperity and to gain a competitive edge over rivals, several academics regard product innovation as one of the most important strategic elements (Saqib & Satar, 2021; Jimenez-Jimenez & Sanz-Valle, 2011). In terms of continuity, based on the number of resources entering into the input side of the innovation process, a source of innovation persistence can be found in the firm's management decisions that consistently encourage and emphasise innovation. Innovation in products (continuous: i.e. colour, shape, size, flavour and physical materials) is most often successful because they ride on the successes, publicity and market advantages the earlier version enjoyed. Even if research and development (R&D) may be more expensive, the management of the products makes strategic choices to invest in an innovation process in the first place. However, innovation (either continuous or dynamically continuous) in products reduces the cost of R&D compared to totally new products (discontinuous innovation). The success of innovative products depends on their ability to meet market trends and customer satisfaction. A stronger track record of new product performance optimizes revenues and increases market share, which leads to acquiring new customers while retaining existing ones as the end outcome (Tsai et al. 2013). When clients are happy, the company's future business experiences improve. Client loyalty, uninterrupted business operations, higher revenue, and competitive advantage will all be enjoyed by the organisation. The use of colour, size, shape, flavour and physical materials has a positive effect on innovative products based on market trends.

1.2 Problem Statement: Over the last several years, there has been a rise in product competition worldwide as businesses search for new ways to please their clientele. In addition, these businesses compete with one another for clients, sustained existence, and market share. Success in this competitive environment can be obtained by uniquely putting their goods and services (Naveed et al. 2014). These days, it's harder for businesses to keep a competitive edge. Even businesses that have achieved success in technology or product leadership are vulnerable to losing their market dominance which results in misallocating resources, failing to make fresh investments, products that eventually become outdated, the inertia of established organizations, or other factors (Christened, 1997).

1.3 The Main Objective of the Study: This study however attempts to identify what companies can do to their existing products to prevent them from becoming obsolete and losing their relevance and market share and to promote product longevity.

2.0 LITERATURE REVIEW

2.1 Innovation

The increasing awareness of sustaining products in all facets of life has a bigger impact on consumer behaviour (Hossain, 2020). Given the continually rising awareness to sustain a firm's product globally, many businesses are seeking to find unique techniques to improve their product performance in the marketplace (Dauvergne & Lister 2013; Elkington, 1997). More academic and management focus has been placed on the effect of innovation on a company's success in the current business environment due to the rapid pace of consumers' tastes and preferences, technological advancement and the environment's high levels of competition. It is often known that one of the main factors helping businesses create and maintain long-term competitive advantages is innovation. (Breitling & Scholl, 2022).

For the organisation's survival and prosperity as well as to gain a competitive edge over rivals, several academics also regard product innovation as one of the most important strategic elements (Saqib & Satar 2021). In a similar vein, innovation is seen by Gunday et al. (2011) as one of the most important strategies for promoting organisational growth via market share expansion and new market entry. The advantages of innovating products include increased profitability, improved organisational survival, faster expansion, more efficient operations, and added value for both the customer and the manufacturing product Atalay et al. (2013). In this view, it is important to mention that many organisations have innovation as their top priority, and businesses spend millions of dollars on innovation-related research and development to ensure their long-term viability (Yi et al. 2022).

Today, continuous innovation is a crucial component of innovation that aids the introduction of new goods and services. Past studies have revealed that product performance is crucial to innovation performance (Samiee et al. 2005). The success of any innovation depends on consumers' willingness to use new goods and services that businesses are introducing. How consumers react to new items also influences innovation performance. As a result, innovation is influenced by consumers' responses (Lowe & Alpert, 2015).

Sjöberg and Wallgren, (2013) emphasize the significance of understanding client expectations for businesses to choose differentiators more effectively. Product innovation is a significant factor in corporate performance and sustainability, according to Forsman (2011). Product innovation techniques in particular will assist business executives in enhancing the operation and performance of their enterprises (Agyeman et al, 2017). A stronger track record of new product performance optimises revenues and increases market share, which leads to the acquisition of new customers while retaining existing ones as the end outcome (Tsai et al. 2013). The discourse highlighted the significance of product innovation in assisting businesses that boost global expansion and increase their competitiveness. As a result, the ability to launch new goods with distinctive characteristics (colour, size, physical materials, shape etc) that work well can contribute to an organisation's success and provide a long-lasting competitive edge.

According to Naveed et al. (2014), innovation is defined as the process of developing a new product or process with the primary goal of gaining a sustainable competitive advantage, enhancing the brand's or product's efficiency, and increasing consumer happiness. According to Pan and Zinkhan (2006), innovation is employed as a strategic direction toward obtaining market potential, generating consumer satisfaction, and building loyalty, all of which improve the firm's market share. Variations in consumer preferences and tastes are a global problem, proving that no single brand can consistently satisfy all customer segments. Global demand for goods is only going to increase, necessitating continuous product innovation. According to persistent innovation, creating innovation at one point in time serves as a significant source of creativity that facilitates the firms' subsequent innovations (Peters, 2009). This is similar to the continuous and dynamically continuous innovation suggested by Shimp T., (2003). At the moment, there is a lot of scholarly interest in the question of whether innovation persists at the business level (Antonelli et al. 2010; Clausen et al. 2012). This discourse by academia makes it feasible for present products that have the propensity for generating future sales to be innovated. According to Clausen and Pohjola (2013), this indicates that there is a causal behavioural impact at work, meaning that innovation in one era increases the likelihood of innovation in the next period. In addition to lagging innovation, another cause of persistence is the possibility that some products have unique qualities that increase their likelihood of innovation, such as flavour, size, and packaging. Such traits will encourage persistence in innovative behaviour to the extent that they demonstrate persistence across time.

2.2 Innovation Definition

Several academics and business professionals have different perspectives on how to define product innovation. Many times, the word innovation is used incorrectly to refer to invention. Lin, (2006) claims that the Latin word *innovare*, which means "innovation," is where the word innovation first appeared "to make something new". Innovation has been studied for quite some time, but no widely recognised definition can be created due to the diversity in the perspectives and backgrounds of the various researchers. A novel product or procedure that has been enhanced and used in a commercial setting for the first time is considered an innovation, (Freeman & Soete, 1997). According to Johne (1999), the process of identifying novel, unmet customer needs and incorporating new technology into distinctive product qualities constitutes product innovation. Innovation is the development of new goods that are superior to those already on the market. Forsman (2011) defines innovation as an organization's ability to successfully generate new or improved products to increase overall competitiveness. Atalay et al. (2013) defined product innovation as an organization's capacity to market new or considerably improved goods and services in terms of their features or intended uses. Ayyub et al.(2020) define product innovation as the introduction of new goods or services to the market. Since innovation ranges from incremental to radical offers, there are many different types of product innovation available (Geng et al, 2021). According to Kim et al. (2013), the regular release of new products onto the market is considered a form of product innovation. This research identified the definition of innovation as "the development of a product, service, or process that is considered new because it is different from the ones already available,

responds to market requirements, and satisfies need/s in novel ways". Samiee, et al. (2005) also define innovation as products, ideas, services, skills, etc. which is considered new and their new level is based on perception. Innovation can revitalize businesses and is a major factor in global economic expansion.

2.3 Customer satisfaction

Companies globally are striving to satisfy the needs of their customers. When clients are happy, the company's future business experiences an improvement. Client loyalty, uninterrupted business operations, higher revenue, and competitive advantage will all be enjoyed by the organisation. Customers will undoubtedly compare their experiences utilising business items or services to their expectations when gauging their level of happiness (Kurniawan et al.2019). Kotler et al. (20014) state that satisfaction deals with a feeling of happiness or disappointment a customer experiences after comparing perceptions or impressions of product performance. According to Naveed et al. (2014), customer satisfaction may be characterised as the user's happiness with the product's performance and the contentment that the product meets their expectations. When a business innovates its product and it meets customers' requirements, it gains client loyalty and achieves consumer happiness. From the customers' point of view, the innovative product's value is maximised (Naveed et al. 2014). Oliver (1997) states that "customers' response to the condition of fulfilment, and the decision of the customers' statement of fulfilment, constitute customers' satisfaction." This makes it evident as Mital et al. (1998) noted, that customer happiness is the foundation of customer loyalty and, consequently, that the declaration of customer loyalty follows from consumer satisfaction. Customers' loyalty to the product is crucial to the business's viability. Repurchase intention is positively impacted by customer satisfaction through product innovation (Anderson and Sallivam, 1993). Customers are consistently satisfied and devoted when a company produces a product that meets their needs. According to research, consumers' perceptions of a product and its actual performance have a significant impact on how satisfied they are (Yu and Hong, 2002). Anderson and Sullivan (1993) made the case that a customer's decision to repurchase a product is influenced by their level of satisfaction.

2.4 Loyalty

Oliver (1999) defines loyalty as “an intensely held promise to repurchase a preferred product every time in future, and in so doing cause repetition of same product despite situational effect and marketing efforts, having the potential to cause a switch behaviour”. Tatikonda et al. (2001) state that when a corporation produces a product whose functionality requires no technical support; this product's dependability makes it more distinctive, and its superiority ultimately results in sales by satisfying customers. Research has shown that two factors—trust and commitment—have an impact on the relationship between loyalty and satisfaction. Customer satisfaction and high-quality service contribute to these factors (Javadein et al. 2008). The frequency of product use can be used to gauge customers' contentment or discontent with a product. Customers' experience with a product tells the level of satisfaction or dissatisfaction Goode et al. (2005) that leads to loyalty or to switch. Companies that respond promptly to

consumer complaints and ensure that product innovation is only focused on meeting evolving customer wants, gain the loyalty of their clients and lessen their bad impressions. Hence, product loyalty can be increased by how customers perceive innovation (Lin & Ma, 2022). As a result, businesses alter their innovation-related efforts to promote product loyalty among customers to accomplish sustainable growth over the long run (Loucanov et al, 2021) and consequently, increased loyalty results from high product satisfaction (Ng et al., 2019; Han et al., 2018; Hariyanto, 2018). In contrast to other businesses, the service sector emphasizes customer satisfaction to foster the kind of loyalty that ultimately leads to success and long-term advantages (Han et al., 2018; Khan et al., 2016). Past studies have revealed that product performance is crucial to innovation performance (Sharma et al., 2016). Hence, product loyalty can be increased by how customers perceive innovation (Lin et al., 2019). Multinational corporations are becoming more worried about their brand as customer behaviour in branding is changing (Safeer et al., 2021b). As a result, businesses alter their innovation-related efforts to promote brand loyalty among customers to accomplish sustained, long-term growth (Loucanová et al., 2021). Because of this, customers will regularly purchase goods and tell their friends about them, increasing sales and increasing the company's profitability. Empirically, past studies have demonstrated that customer satisfaction increases opportunities for reuse and has a favourable impact on loyalty (Chen & Wang, 2016) referrals and incentives (Han & Ryu, 2009; Minta, 2018).

2.5 Competitive Advantage

Achieving competitive advantage through innovation efforts for an organisation and its products in the global market requires well-coordinated elements (colour, shape, size, physical materials) for innovation in products is critical. Innovation is widely acknowledged as one of the primary sources that assist firms in establishing and sustaining sustainable competitive advantages (Breitling & Scholl, 2022; Wang et al, 2022; Hu et al, 2022; Purchase & Volery, 2020; Fauji & Utami, 2013). For the organisation's survival and prosperity and to gain a competitive edge over rivals, several academics also regard product innovation as one of the most important strategic elements (Saqib & Satar, 2021; Jimenez & Sanz-Valle, 2011). According to Gunday et al. (2011), revealed that expanding into new markets and gaining market share are two ways in which organisations might grow through innovation. Product innovation advantages include an increase in profitability, improved organisational survival, faster expansion, more efficient operations, and added value for both the customer and the manufacturing product (Atalay et al., 2013). Due to the discourse above, it is important to mention that many organisations have product innovation as their top priority (Lipit, 2006).

2.6 Profitability (Performance)

The success of any innovation depends on consumers' willingness to use new goods and services that businesses are introducing. How consumers react to new items also influences innovation performance. As a result, product innovation is influenced by consumer response (Lowe and Alpert, 2015). Innovation has the potential to impact business success in two different ways. On the one hand, certain financial viewpoints contend that innovation projects

could expose companies to risks such as rivals' sales strategies, technological challenges, and market competitiveness (Fernandes & Paunov, 2015). These challenges could result in unanticipated budget increases, requiring investors to provide larger financial contributions for the running of the company. As a result, companies that innovate often face the problem of rising material costs, which can negatively impact their profitability and the expected returns for shareholders. Based on the data at hand, some studies contend that innovation has little to no positive effects on firm profitability (Birley & Westhead, 1990), while other research contend that innovation negatively affects firm performance (Vermeulen et al. 2005). However, the signalling approach shows that high-performing businesses are more likely to take part in new ventures (Freeman, 1994). Several empirical studies have examined the significance of innovation for firm performance utilising data sets from various nations up to this point. Research on the relationship between innovation and profitability at the business level was pioneered by studies that used a panel data set of English enterprises (Geroski et al. 1993; Geroski & Machin, 1992). According to their findings, companies that offer innovative goods and services regularly outperform less inventive companies in terms of profitability because innovators have stronger internal resources, make multiple innovations over time, and gain a competitive edge in the marketplace (Geroski and others, 1993).

2.7 Conceptual Framework and Hypothesis Development

Boyer (2007) in his study indicates that “innovation is one of major relevance for companies, as it can be the source of additional revenues from new products or services, can help to save costs or improve the quality of existing processes”. According to Lee & Yoo (2019), companies that were previously successful because of their technological edge are rapidly losing their market dominance and are finding it harder to sustain the benefits they have in a competitive market. Empirical research on the persistence of innovation has been done recently. According to Clausen et al. (2012) and Raymond et al. (2010), invention positively and strongly predicts contemporary innovation. To provide answers to the obstacles, issues, and market demands, management must possess creativity and innovation. Only then can the brand survive, grow in sales, become more profitable, and succeed (Beise-Zee, R. 2022). Hult et al. (2004) emphasised how innovation can help businesses compete more successfully with rivals and expand their product offerings. From the perspective of Gunday et al. (2011), expanding into new markets and gaining market share are two ways that organisations might grow through innovation. Product loyalty can be increased by customers' perception of innovation (Lin & Ma, 2022). Customers' experience with a product tells the level of satisfaction or dissatisfaction Goode et al. (2005) that leads to loyalty or to switch. Due to this comprehension, however, the researcher developed the following framework for the study.

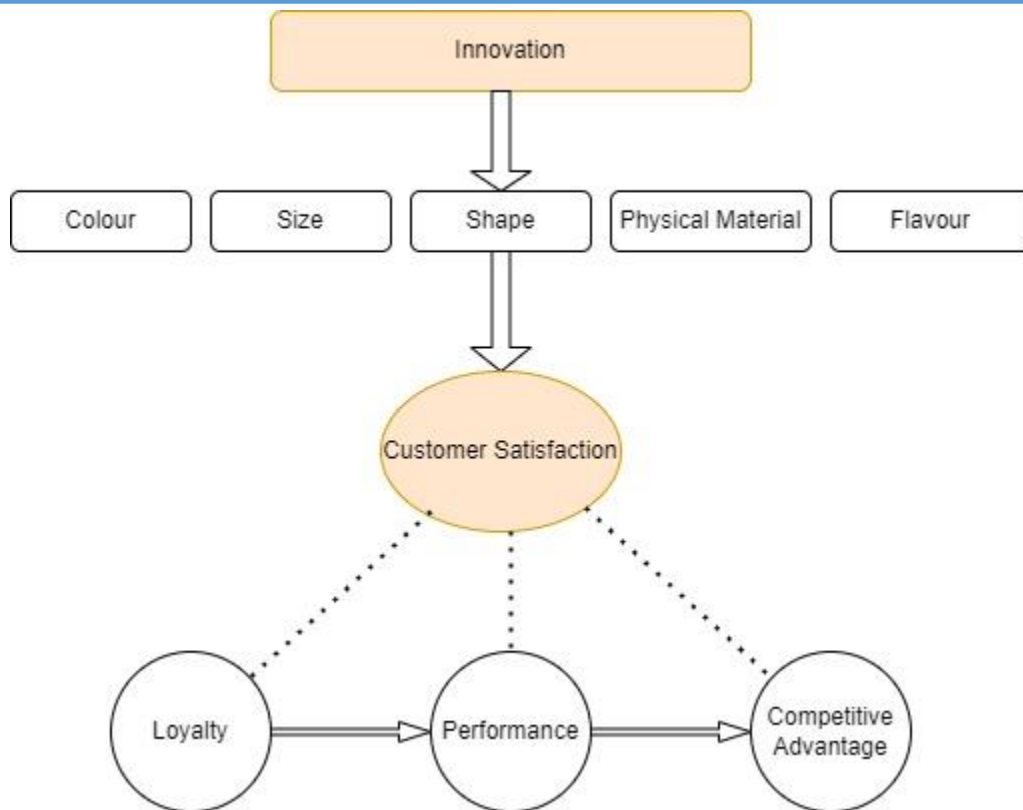


Figure 1: Conceptual framework of the study

Additionally, recent research by academics from many nations has shown that innovation in its various forms adds financial value to businesses, and improves the success of those businesses. (Howell, 2018; Rajapathirana & Hui, 2018; Spescha & Woerter, 2018). According to a study by Amoasi et al. (2023), product innovation (continuous) overcomes complexity and, is more compatible with consumers' experiences and lifestyles, and thus contributes to a higher product performance in the global market. Due to this discourse, the following hypotheses were developed:

H1a: innovation has a positive link with customer satisfaction.

H1b: Customer satisfaction has a positive link with product loyalty.

H1c: Customer satisfaction has a positive link with the high rate of product performance.

H1d: There is a positive link between customer satisfaction and competitive advantage.

2.6 Strategic use of innovation

Table 2.1: illustrating the strategic use of innovation (continuous)

Item	Strategic Use/Benefit	Source
Product Innovation (PI)	PI1 Company consider stakeholders interest	Naveed et al, 2014
	PI2 Product Innovation responds to customer needs functionally.	
	PI3 Companies seek customers view and participation to innovate products.	
	PI4 Innovation are used to improve a firm’s competitive edge.	
	PI5 Innovation is used to maintain existing demands, and attract new users.	
	PI6 Innovation usually improves the efficiency of existing products	
	PI7 Innovation is a strategy by firms to gain market potential.	
Customer Satisfaction (CS)	CS1 Innovation enhances customer satisfaction	Naveed et al, 2014; Tatikonda et al, 2001
	CS2: Customer satisfaction gives assurance of better business in the future with the company.	
	CS3: Customer satisfaction increases profitability and competitive levels.	
	CS4 Customer satisfaction affects loyalty, commitment and trust.	
Customer Loyalty (CL)	CL1 Customers buy repeatedly at increasing rate	Goode et al, 2005; Davit et al, 2020
	CL2 Customers recommend the innovative product/brand to friends and relatives.	
	CL3 There is positive word-of-mouth for a company’s innovative products	
	CL4 Customers continually supports the company’s innovative products against competitors offerings.	
	CL5 Customers feels part of the company and so relay information to the company to enhance continuous product update.	
Competitive Advantage	CA1 Innovation increases the rate of a firm’s attractiveness	Hamid & Abbasi, 2020; Eng.,2011
	CA2 Customers have the incentive to choose	
	CA3 Purchasing behaviours and intentions of both existing and prospective customers are influenced.	
	CA 4: Firms use new resources, resource reallocation and convergence as a source of competitive advantage.	
	CA5 Customers enjoy differentiated competition in areas of quality and function.	
Innovation Product Performance (IPP)	IPP1 Reduction in R&D investment.	Davit et al, 2020; Reguia, 2014; Pan and Zinkhan, 2006
	IPP2 Actual returns on investment (ROI).	
	IPP3 Returns on product sales.	
	IPP4 Growth rate of revenue.	
	IPP5 Growth rate of market share.	
	IPP6 Growth rate of profitability.	

3.0 METHODOLOGY

It would be virtually impossible to study the entire global population as well as the global organizations on how they sustain their brands to achieve competitive advantage. The target group of persons, objects, things, or entities in the study is referred to as the population, which is the entire probability of responders (Majid, 2018). Specifically, the study population focuses on the selected companies within the Eastern and the Greater Accra regions of Ghana. Due to time constraints and cost, the population for the study was centred on the consumers and management and staff of some selected companies and organisations that the study identified. The sampling size of the study was three hundred and twenty (Benitez, 2018). The size was chosen to give the population a fair representation and also, because of the limited time for the study and resources available to the researcher. Regarding the sampling plan, convenience sampling and multi-stage sampling procedures from the non-probability sampling group were used to collect information for this research (Benitez, 2018). Out of the three hundred sample size, two hundred and eighty (280) were consumers and twenty were the management and staff from the selected organizations.

4.0 RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Table 1 Demographic Profile

Description		Frequency	Percentage (%)
Gender	Male	140	46.7%
	Female	160	53.3%
Age	18-30	152	50.7%
	31-59	103	34.3%
	60 & Above	45	15%
Employment	Employed	213	71%
	Unemployed	50	16.7%
	Retired	37	12.3%
Marital status	Married	187	62.3%
	Single	113	37.7%
Education	Diploma & below	80	26.7%
	Bachelor's	175	58.3%
	Post Graduate	45	15%
Total		300	100

From Table 1, 140 respondents representing 46.7% were males whilst 160 of the respondents representing 53.3% were female. It is established that 255 of the respondents constitute 85% and 45 respondents representing 15% were found to be 60 years and above. In the perspective of employment, 213 respondents representing 71% are employed with a purchasing power whilst 50 respondents representing 16.7% are unemployed. 37 respondents representing 12.3%

are retired. From the table, 187 respondents representing 62.3% were married and 113 respondents representing 37.7% were not married. Regarding education, holders of Diploma and below constituted 80 respondents representing 26.7%, Bachelor degree holders were 175 representing 58.3% and Post Graduate degree holders were made up of 45 respondents representing 15%.

4.2 Reliability Test

Table 2 illustrating the Reliability test of the study.

Items	Number of Indicators	Cronbach's alpha
Physical material	03	0.783
Colour	03	0.865
Shape	04	0.767
Size	03	0.795
Flavour	03	0.850
Customer satisfaction	07	0.763
Overall alpha		0.838

According to Table 03's results, each variable's Cronbach's alpha value falls between 0.763 and 0.865, and the overall value is 0.838. This indicates that the scales used in the questionnaire measured the constructs satisfactorily and suggested good internal consistency of the items.

4.3 Hypotheses Testing

Correlation Analysis

Table 3: Pearson Correlation Analysis

	Customer Satisfaction
Innovation	.950**

**** denotes at 0.05% significant level**

Correlation Analysis Table 1 indicates that the value of correlation between innovation and a very strong and significant association between the variables is indicated by the customer satisfaction score, which is .950 at the 0.05 significant level.

4.4 Simple Regression Analysis

Table 4 (a): Innovation influences customer satisfaction

Model Summary Model	R	R Square	R Adjusted Square	Std. Error of the Estimate	F-statistic	P-value
1	.950a	.901	.901	.12980	2769.956	.000b

Predictors: (Constant), Innovation

With an F-statistical probability value of less than 0.01 and a R square value of 0.90, Table 4(a) indicates that innovation accounts for 90% of the level of customer satisfaction predicted by innovation, with the remaining 10% being determined by other factors.

Table 4 (b) Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.243	.076		3.216	.001
	Innovation	.946	.018	.950	52.620	.000

Dependent Variable: Customer satisfaction

Table 4(b) indicates that consumer satisfaction will rise by 0.94 for every unit increase in innovation. It illustrates how innovation has a big influence on client satisfaction. According to this perspective, both the goal and H1 are accomplished.

4.5 Multiple Regression

Table 5a: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.956	.912	.910	.12310

Predictors: (Constant), Physical materials, Colour, Shape, Size, Flavour.

Table 5 shows that the R square value is 0.91, meaning that 90% of the variation in consumer satisfaction can be explained by all independent variables (physical material, colour, shape, size, and flavour), with the remaining 10% being determined by other factors. Table 05 explains that all independent factors have a significant impact on customer satisfaction at 1%. It shows that when competition, loyalty, and product performance rise by one unit, customer satisfaction will increase by 0.221, 0.196, 0.150, 0.233, and 0.200, respectively. H1a, H1b, H1c, and H1d are therefore all approved.

Table 5b: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	SE	Beta		
	(Constant)	.187	.084		2.201	.024
	AVERPM	.187	.020	.270	9.011	.000
	AVRCO	.256	.012	.337	19.488	.000
1	AVERSH	.162	.020	.256	7.729	.000
	AVERSI	.213	.016	.289	12.433	.000
	AVERFL	.144	.015	.168	9.257	.000

^aDependent Variable: Customer Satisfaction

Table 5c: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	47.343	6	9.365	612.215	.000 ^b
Residual	4.382	284	.016		
Total	51.725	290			

a. Dependent Variable: Customer Satisfaction.

4.6 Testing Multicollinearity

The variance inflation factors (VIF) value for the collinearity statistics analysis results in this study are displayed in Table 6.

Table 6: Multicollinearity

Variable	Tolerance	VIF
Physical Material	.324	3.179
Colour	.917	1.063
Shape	.258	3.565
Size	.542	1.752
Flavour	.873	1.233

b. Predictors: (Constant), Physical materials, Colour, Shape, Size, and Flavour runs between 1.063 and 3.565 and the tolerance value falls between 0.258 and 0.917, indicating the absence of a multicollinearity issue.

5.0 FINDINGS AND DISCUSSIONS

The study reveals that continuous innovation which deals with making changes in existing products in the form of upgrading physical materials for packaging, changes made to colour, size, shape and flavour towards consumers taste and preferences has the possibility of enhancing the satisfaction of customers that further sustain the product competitively. Customer satisfaction and innovation products have a strong correlation, according to the research. The main driver of product innovation is to guarantee effective and efficient customer satisfaction. When customers are satisfied, the company's business will benefit in the long run from increased revenue, customer loyalty, uninterrupted business

continuity, and competitive advantage. Innovation (continuous) are most often successful because they ride on the publicity and the market advantages the earlier version of the brand enjoyed. The study reveals that the use of colour in innovation satisfy the consumer desire for quality and taste including the satisfaction of emotional and psychological needs but flavour satisfy particularly taste and smell in some products. Innovation influenced by size attempts to satisfy consumers usage and purchasing power. The use of shape appeals to satisfy consumers' desire for length, thickness and slope whilst the use of upgraded physical materials particularly for packaging increases the company's sales and profits and again influences the sub-conscious mind of consumers. These findings make innovation particularly (continuous innovation) relevant because it is tailored towards the changing taste, preferences and culture of the market. It also has the capacity to capture the non-inclusive customers, stimulates immediate trial and restores previously purchased pattern. As a result of increased satisfaction of customers, product performance, loyalty and competitive advantage is achieved. The study revealed that product innovation factors (i.e. size, colour, shape, flavour and physical materials) affect customer satisfaction. The study proves that product innovation has a strong relationship with customer satisfaction that culminate into sustainability of the firm's products in the global market competitively.

6.1 CONCLUSION

The objective of the study was to find out what firms can do to sustain their products competitiveness in the global market. Innovation of products (continuous) in terms of colour, size, shape, flavour and physical materials play effective role to influence consumer satisfaction. The changes that occur in an existing product (continuous innovation) has the capacity to tailor the exact consumer taste and preferences and thus reduce the risk of adoption. Product innovation with little investment in promotion will have a magical performance globally because they ride on the successes, publicity and the market advantage the earlier version enjoyed. In addition, product innovation of this nature has a shorter period between the conception and introduction and reduction in the cost of R&D than totally new-to-the-world products (discontinuous innovation). Product innovation that results in high levels of customer satisfaction leads to higher levels of performances and loyalty thus enhancing the product sustainability competitively.

Limitations and Future Research

Like many other studies, this study also has some limitations. This study mainly focused on minor changes that occur to a product without necessarily causing changes in the way the product is used (continuous innovation) without considering the other continuum of innovation. Secondly, the study paid attention to Fast Moving Consumer Goods (FMCG) with no attention to services and industrial goods. Thirdly, the study used regression for the analysis. Future research that considers services and industrial products with other analytical tools like PLS SEM and others will help give a special dimension to the study

Conflict of Interest: The Author wish to declare that there is no conflict regarding either the authorship or journal selection.

References

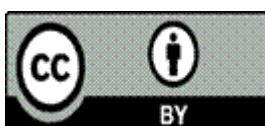
- Agyemang F G, Boateng H, Dzandu M D. (2017). Examining intellectual stimulation, idealized influence and individualized consideration as an antecedent to knowledge sharing: Evidence from Ghana [J]. *Knowledge Management and E-Learning*, 9(484-98).
- Anderson & Sullivan 1993. The Antecedents and Consequences of Customer Satisfaction for Firms. *Management sciences journal* 12(2):125-143.
- Antonelli, C., F. Crespi, and G. Scellato. 2010. Inside innovation persistence: New evidence from Italian micro-data, Working paper No. 10/2010, Università di Torino, Department of Economics.
- Atalay M, Anafarta N, Sarvan F. (2013). The relationship between innovation and firm performance: Empirical evidence from Turkish automotive supplier industry [J]. *Procedia-social and behavioral sciences*, 2013, 75(226-35).
- Ayyub S, Xuhui W, Asif M, et al. (2020). Determinants of intention to use Islamic banking: A comparative analysis of users and non-users of Islamic banking: evidence from Pakistan [J]. *International Journal of Islamic and Middle Eastern Finance and Management*, 13(1): 147-63.
- Bentz, F. (1997). *Managing Technological Innovation: Competitive Advantage from Change*. New York: Wiley.
- Benitez J, Castillo A, Llorens J, et al. (2018). IT-enabled knowledge ambidexterity and innovation performance in small US firms: The moderator role of social media capability [J]. *Information & Management*, 55(1): 131-43.
- Beise-Zee, R. (2022). Brand equity retention after rebranding: a resource-based perspective. *Journal Brand Management* 29, 208–224.
- Breitling K, Scholl W. (2022). Success of process innovations through active works council participation [J]. *Frontiers in Psychology*, 13(79-91).
- Chen C-F, Wang J-P. (2016). Customer participation, value co-creation, and customer loyalty—A case of airline online check-in system [J]. *Computers in Human Behavior*, 62(346-52).
- Chen T, Kenneth Cheng H, Jin Y, et al. (2021). Impact of competition on innovations of it industry: An empirical investigation [J]. *Journal of Management Information Systems*, 38(3): 647-66.

- Chiesa V, Frattini F. (2011). Commercializing technological innovation: Learning from failures in high-tech markets [J]. *Journal of Product Innovation Management*, 28(4): 437-54.
- Christensen CM., (1997). *The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail*. Boston: Harvard Business School Press.
- Clausen,T.H., .Pohjola,M.Sapprasert, and B.Verspagen. (2012). Innovation strategies as a source of persistent innovation. *Industrial and Corporate Change* 21: 553–85.
- Clausen TM & Pohjola M. (2013) Persistence of product innovation: comparing breakthrough and incremental product innovation, *Technology Analysis & Strategic Management*, 25:4, 369-385, DOI: 10.1080/09537325.2013.774344
- Damanpour, F. and Schneider, M. (2009) Characteristics of Innovation and Innovation Adoption in Public Organisations: Assessing the Role of Managers. *Journal of Public Resources and Theory*, 19, 495-522. <https://doi.org/10.1093/jopart/mun021>.
- Dauvergne P, Lister J. (2013). *Eco-business: A big-brand takeover of sustainability* [M]. MIT Press.
- Eisingerich A B, Rubera G.(2010). Drivers of brand commitment: A cross-national investigation [J]. *Journal of International Marketing*, 18(2): 64-79.
- Elkington J. (1997). The triple bottom line [J]. *Environmental management: Readings and cases*, 2(49-66).
- Forsman H. (2011). Innovation capacity and innovation development in small enterprises. A comparison between the manufacturing and service sectors [J]. *Research Policy*,40(5): 739-50.
- Geng L, Shi X, Zu L, et al. (2021). Importance calculation of customer requirements for incremental product innovation [J]. *Frontiers in Psychology*, 12(633-47).
- Goode, Davies, Moutinho & Jamal. (2005). Determining Customer Satisfaction from Mobile Phones. *Journal of Marketing Management* 21: 755-778.
- Gunday G, Ulusoy G, Kilic K, et al. (2011). Effects of innovation types on firm performance [J]. *International Journal of Production Economics*, 133(2): 662-76.
- Hoonsopon D, Ruenrom G. (2012). The impact of organizational capabilities on the development of radical and incremental product innovation and product innovation performance [J]. *Journal of Managerial Issues*, 250-76.
- Hossain M. (2020). Frugal innovation: Conception, development, diffusion, and outcome [J]. *Journal of Cleaner Production*, 262(121-45).
- Hult, G. T. M., Hurley, R. F., & Knight, G. A. (2004). Innovativeness: Its antecedents and impact on business performance. *Industrial Marketing Management*, 33(5), 429-438.

- Hubert M, Florack A, Gattringer R, et al. (2017). Flag up!—Flagship products as important drivers of perceived brand innovativeness [J]. *Journal of Business Research*, 71(154-63).
- Freeman C, Soete L. (1997). *The economics of industrial innovation* [M]. Psychology Press.
- Jiménez-Jiménez D, Sanz-Valle R. (2011). Innovation, organizational learning, and performance [J]. *Journal of Business Research*, 64(4): 408-17.
- Johne A. (1999). Successful market innovation [J]. *Innovations management*, 163-70.
- Jung H S, Kim K H, Lee C H. (2014). Influences of perceived product innovation upon usage behavior for MMORPG: Product capability, technology capability, and user-centered design [J]. *Journal of Business Research*, 67(10): 2171-8.
- Kanagal N B. (2015). Innovation and product innovation in marketing strategy [J]. *Journal of Management and Marketing Research*, 18(1): 1-25.
- Kim N, Im S, Slater S F., (2013). Impact of knowledge type and strategic orientation on new product creativity and advantage in high-technology firms [J]. *Journal of Product Innovation Management*, 30(1): 136-53.
- Kotler P., Armstrong G., (2014). *Principles of Marketing, European Edition*. Prentice Hall, London.
- Kotler P., & Keller G. (2016). *Marketing Management*, 12th Edition, Pearson Education, U.K.
- Lee K., & Yoo J. (2019). How does open Innovation lead to Competitive Advantage? A dynamic Capability View Perspective.
- Lin, C. (2006). A study on the organizational innovations in Taiwan's logistics industry. *The Business Review, Cambridge*, 5(1), 270.
- Loučanová E, Šupín M, Čorejová T, et al. (2021). Sustainability and branding: An integrated perspective of eco-innovation and brand [J]. *Sustainability*, 13(2): 732-42.
- Lowe et al, (2002), *International Marketing*, 2nd Edition. BPP Publishing, UK.
- Lowe B, Alpert F. (2015). Forecasting consumer perception of innovativeness [J]. *Technovation*, 45(1-14).
- Lin, C. Y. (2007). Factors affecting innovation in logistics technologies for logistics service providers in China. *Journal of Technology Management in China*, 2(1), 22-37.
- Lin B, Ma R.,(2022). Green technology innovations, urban innovation environment and CO2 emission reduction in China: Fresh evidence from a partially linear functional-coefficient panel model [J]. *Technological Forecasting and Social Change*, 176(121434).
- Majid U. (2018). Research fundamentals: Study design, population, and sample size [J]. *Undergraduate research in natural and clinical science and technology journal*, 2018, 2(1-7).

- Michael PE. (1985). *Competitive advantage: creating and sustaining superior performance*. New York: Free-Press.
- Oliver, RL (1989), 'Processing of the satisfaction response in consumption: A suggested framework & research propositions', *Journal of Consumer Satisfaction, Dissatisfaction & Complaining Behaviour*, vol. 2, pp. 1-16.
- Peters, B. (2009). Persistence of innovation: Stylized facts and panel data evidence. *Journal of Technology Transfer* 34: 226–43.
- Porter, M. E. (1990). The competitive advantage of nations. *Harvard Business Review*, 68, 73-93.<http://dx.doi.org/10.1007/978-1-349-11336-1>
- Purchase S, Volery T. Marketing innovation: a systematic review [J]. *Journal of Marketing Management*, 2020, 36(9-10): 763-93.
- Raymond, W., P. Mohnen, F. Palm, and S. van der Loeff. (2010). Persistence of innovation in Dutch manufacturing: Is it spurious? *The Review of Economics and Statistics* 92: 495–504.
- Samiee S, Shimp T A, Sharma S. (2005). Brand origin recognition accuracy: its antecedents and consumers' cognitive limitations [J]. *Journal of International Business Studies*, 36(379-97).
- Sajjad A, Eweje G. (2014). Corporate social responsibility in Pakistan: Current trends and future directions [M]. *Corporate social responsibility and sustainability: Emerging trends in developing economies*. Emerald Group Publishing Limited. 163-87.
- Saqib N, Satar M S. (2021). Exploring business model innovation for competitive advantage: a lesson from an emerging market [J]. *International Journal of Innovation Science*, 13(4): 477-91.
- Sjöberg A, Wallgren C. (2013). Product innovation and the effects of CRM usage: A quantitative study [M].
- Tatikonda, Weiss Kenan (2001). Integrating Operations and Marketing Perspectives of Product Innovation: The Influence of Organizational Process Factors and Capabilities on Development Performance. *Journal of Management Sciences* 47(1):151-172.
- Tsai T-I, Lee H-Y, Chang S-H, et al. (2013). Effective sugar nucleotide regeneration for the large-scale enzymatic synthesis of Globo H and SSEA4 [J]. *Journal of the American Chemical Society*, 135(39): 14831-9.
- Yi L, Félix Gómez B, Ramalingam B, et al., (2022). Self-reconfigurable robot vision pipeline for safer adaptation to varying pavement width and surface conditions [J]. *Scientific Reports*, 12(1): 145-57.

Yu and Hong (2002). Antecedents and consequences of consumer satisfaction/dissatisfaction with the performance of apparel products at purchase and after consumption: a comparison of male and female South Korean consumers. *International Journal of Consumer Studies*.



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