



The importance of product innovation in maintaining a competitive advantage

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Abstract: Product innovation is crucial in creating and sustaining a competitive advantage for companies. Companies can differentiate themselves from competitors by constantly improving, introducing new products, and appealing to customers. The success of product innovation depends not only on how new the product is but also on its quality and price. Therefore, the relationship between product innovation, price, and quality is vital for creating and maintaining a competitive advantage. This study analyzes the relationship between product innovation and (price, quality) with a sustainable competitive advantage, the data shows that there is an effective and positive relationship between product innovation and price, quality. Additionally, we collected data through forum questionnaires and analyzed it using the multiple regression method, and We used SPSS version 25 for assistance in data analysis. So, the study can analyze the influence of the independent variables (product innovation) on the dependent variable (sustained competitive advantage). After analyzing the data, it was found that process innovation, product innovation, price and quality positively impact sustained competitive advantage.

Keywords: product innovation, innovation, price, quality, sustained competitive advantage

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Pomen inovacij izdelkov pri ohranjanju konkurenčne prednosti

Povzetek: Inovacije izdelkov so ključnega pomena za ustvarjanje in ohranjanje konkurenčne prednosti podjetij. Podjetja se lahko razlikujejo od konkurentov z nenehnim izboljševanjem, uvajanjem novih izdelkov in privabljanjem kupcev. Uspeh inovacij izdelkov ni odvisen zgolj od njihovih novitet, temveč tudi od kakovosti in cene. Zato je razmerje med inovacijami izdelkov, ceno in kakovostjo ključno za ustvarjanje in vzdrževanje konkurenčne prednosti.

V tej študiji analiziramo povezavo med inovacijami izdelkov ter (ceno, kakovostjo) in trajnostno konkurenčno prednostjo. Podatki kažejo, da obstaja učinkovita in pozitivna povezava med inovacijami izdelkov ter ceno in kakovostjo. Podatke smo zbrali prek vprašalnikov na forumih in jih analizirali z metodo večkratne regresije, pri čemer smo uporabili programsko opremo SPSS različice 25. S študijo smo tako lahko analizirali vpliv neodvisnih spremenljivk (inovacij izdelkov) na odvisno spremenljivko (trajnostna konkurenčna prednost).

Po analizi podatkov je bilo ugotovljeno, da imajo procesne inovacije, inovacije izdelkov, cena in kakovost, pozitiven vpliv na trajnostno konkurenčno prednost.

Ključne besede: inovativnost izdelkov, inovacije, cena, kakovost, trajna konkurenčna prednost

Introduction

In the business world, competition is inevitable. To stay ahead, it is essential to stay up-to-date on industry trends and customer demands and adapt to changes in the business environment. By effectively managing resources and creating a competitive advantage, success can be achieved during competition. One approach to winning a competition through product innovation is to develop new products, even when facing competition from rivals. This process involves observing customers to understand their needs and creating new products that satisfy them. It also requires developing innovative solutions to maintain a strong market position and defend against competitors to meet customer demand. Successfully implementing these tactics can give a firm a competitive advantage. As a result, businesses must offer fresh perspectives, original ideas, and cutting-edge products (Kuncoro & Suriani, 2018). The financial company's environment is influenced by volatility, ongoing dynamism, and rapid development. Effective economic institutions can perform tasks that distinguish them from their competitors during challenging times. These institutions facilitate the introduction of new goods and services, the removal of outdated ones, the creation of new markets, and the decline of existing ones. As a result, companies are increasingly interested in investing in innovation as a critical competitive factor for expanding market share or maintaining customer loyalty (Alsadiq Shahib et al., 2017). The modern economic system seeks to survive and then expand in a highly competitive environment in which it works with the organization to gain the superiority of the rival and acquire a new client, and this forces all organizations to work to do something either unique or similar to others, but in a different way.

In today's highly competitive market, innovation is essential for any organization's success and sustainability. Scholars have been studying innovation extensively over the past 20 years, working to define, categorize, and measure its impact on organizational performance. Balancing environmental, social, and economic considerations is essential to success. Product innovation in an organization involves developing new or improved products with better technical-functional features, components, materials, and ease of use. (Maier et al., 2019). When it comes to business, product innovation can take on different forms. This can include introducing new products, extending product lines, improving existing products, or changing their design. In order to stay competitive in the market, managers must have a thorough understanding of the different types of product innovation. (Cooper & Wahab, 2005). Product innovation is essential for corporate success and innovation. Innovative products offering unique consumer benefits, cost savings, or the potential to create new companies are called radical product innovations. These innovations should improve organizational performance more than other types of innovation. Businesses can keep up with changing demands by creating innovative products. This is known as radical product innovation. The antecedents to an incremental or general product innovation capability have been the subject of many studies, and meta-analyses have been carried out to combine the findings from numerous studies. However, it is also crucial to understand whether and how a radical product innovation capability differs from an incremental one. This effort aims to provide a testable model of the factors that lead to successful radical product innovation (Slater et al., 2013). We live in turbulent times. Technological advancement is constantly increasing, while customer and market needs constantly evolve. Organizations need a product innovation and technology strategy to navigate competition and globalization. Attempting innovation without a plan is like going to war without one. The business disseminates improvement assets across various drives that could be decisively significant or, more terribly, end up in irrelevant or undesirable markets, products, and advances (Cooper, 2005). The quality of a product plays a significant role in its success. Customers are willing to pay more for products that meet their needs and are of high quality. To achieve a sustainable competitive advantage, companies should prioritize producing high-quality products. Additionally, price plays a

crucial role in determining a product's success. Companies offering their products at a lower price than their competitors can attract price-sensitive customers and gain a competitive advantage. However, companies must also ensure that the price of their products is reasonable and that it does not compromise the quality of the product.

In this study, we aim to distinguish the impact of product quality and pricing in the past compared to the influence of product innovation on a company's ranking. Additionally, we will examine the advantages of our current competitors. The goal is to provide insight into the change's businesses should understand to compete with their rivals and succeed in the market effectively. Businesses must also know what the market is doing and what customers want.

1 Literature review

Innovation refers to a company's willingness to explore new ideas and engage in creative processes to create new products. To stay ahead in today's business world, it is crucial to continuously innovate and maintain a competitive edge. This is important for generating immediate revenue and ensuring the long-term growth of a family business. To gain a competitive edge, providing excellent value to customers is crucial. A company's success relies on its ability to stay competitive in the market and keep up with the rapidly expanding and advancing technologies brought on by globalization. As long as the company's products reflect its image and meet the desires and needs of consumers, it will continue to thrive. Developing new products is key to maintaining this success (Yusof et al., 2015). Product innovation is one of the main drivers of a firm's competitive advantage. According to Crossan & Apaydin (2010, firms that can succeed in continually coming up with new products or improving existing ones gain a better position to meet the changing needs of customers, hence differentiating themselves from their competitors to retain their market standing. According to the resource-based view, firms with valuable, rare, inimitable, and non-substitutable resources and capabilities have the potential for long-term competitive advantage. In that case, innovation capability would be one such resource or capability. Empirical studies have established a positive relationship between the product innovation performance of the firm and its competitive advantage and financial performance. The relationship, however, is not that easy: how product innovation pans out into competitive advantage will depend on several contingencies, including the nature of innovation, innovation management capabilities of the firm, and competitive dynamics in the industry, among others (Hervas-Oliver et al., 2021). Firms must also carefully balance product innovation against other strategic imperatives, for example, cost efficiency and quality, to attain the best net outcome (Prajogo, 2016). Product innovation is important in enhancing a firm's competitive advantage and is sustained over time. Firms that can come up with newly improved products now and then, regularly, are in a better position every time to meet the needs of changing customers, hence the adoption of markets and driving out stiff competition from rivals, notable competitive strategies. A resource-based view articulates those valuable, rare, inimitable, and non-substitutable resources and capabilities, for instance, firm innovation capabilities, have the potential to create sustained competitive advantage (Barney, 1991). Empirical research found a positive relationship between a firm's product innovation performance, competitive advantage, and financial performance (Rubera & Kirca, 2012). However, the relationship between product innovation and competitive advantage is more complicated since the innovative attributes and innovation management capabilities, as well as the competitiveness of the industry, may influence the extent the extent to which the advantages are realized (Hervas-Oliver et al., 2021). Firms have to balance product innovation with both strategic priorities, such as cost efficiency and quality, to realize optimum performance (Prajogo, 2016). In addition, competitive advantage based on product innovation may be severely constrained in terms of sustainability. Quite often, in the case of new products, imitations or even substitutability's

may arrive promptly enough to denude the innovating firm of its competitive advantage (Jansen et al., 2006). Continual innovation is, thus, held to be the gizmo of survival, staying ahead of competition, and keeping the advantage (Makkonen & Villanen, 2015). This calls for considerable investments in R&D, effective innovation management practices, and organizational capabilities (Cao & Zhao, 2013).

1.1 Product Innovation

Transferring knowledge into new processes, goods, and services is essential to staying competitive. Innovation can also mean applying new concepts to a business's goods, procedures, or other aspects. The main focus of innovation is to turn an idea into something tangible that can be implemented and considered. Innovation is classified into five categories: new products, new production methods, new sources of supply, new entrants, and new markets (Yusof et al., 2015). Different definitions of innovation focus primarily on advancing technology or product development. Businesses can improve performance through innovation, including incremental improvements. Innovation must employ manufacturing and marketing technologies to create new goods, services for customers, and qualities for new items (Yeşil et al., 2013). Product innovations refer to implementing innovative practices throughout a business operation to develop and promote new products, including all associated processes. These practices are crucial for businesses to maintain their sustainability, as they must continuously adapt to changes in customer demands, technological advancements, and the short life cycle of products, as well as local and international competition. Asserting that product innovation is crucial and should be included in strategies to sustain market share in the face of intense competition has made this prop informative (Panigrahy & Pradhan, 2015).

Innovation is doing things differently, and creativity is thinking about novelty. It is the quality of constantly coming up with original ideas and inventive solutions and having four distinguishing characteristics or innovations: (1) Special meaning or innovation having a strange meaning idea, the program's sequence and system, and potential outcomes. (2) The component or ingredient must have qualities of a work or fruit conceived of at various degrees of ordinality and novelty. (3) The innovation program was carried out according to a pre-planned schedule in the sense that Keino Asian prepared meticulously with a defined schedule and planned ahead of time. (4) Innovation, a program with a goal, requires direction and strategy to achieve a purpose (Zaridis & Mousiolis, 2014). According to Porter, "Marketing is applying an innovative technique, and the innovation process cannot be divorced from corporate strategy and the competitive environment. In order to combine technology, organizational change, and market change and maintain current development, an organization employs innovation (Drazin, 1985). Different factors, such as administrative and technological innovation, product and process innovation, and radical and expanding innovation, can differentiate one invention from another (Afuah, 2020). Unique importance is attached to the categorization of management and technical innovation. Furthermore, Sattayaraksa and Boon (2016). believe that the business must pursue both technological and non-technological innovation at the same time. When classifying innovative capabilities, consider product, process, management, and marketing innovation. Product innovation involves enhancing existing products with new features and functions to differentiate them in the market, creating new products, modifying existing product designs, and utilizing new technologies and media in production. Please note that I am not capable of product innovation. Product innovation may be viewed from two perspectives: from the inner side, which is influenced by the company's knowledge, capabilities, resources, and technologies, and from the exterior, which focuses on customer requirements and owner expectations (Weerawardena, 2003).

The commercialization of research and development outcomes by creative enterprises generates new and unused value, which the growth of nations' economies heavily depends on. Additionally, these same businesses receive a large portion of the value generated. They are primarily generating money in this way for themselves, their nation, and the entire planet. Innovations in processes as well as goods and services are included. Products viewed as innovative by consumers, who might be distributors and end users, are produced. Process innovation describes novel procedures that either lower manufacturing costs or make it possible to produce new goods (Harris et al., 2000). It must be evaluated on several criteria to determine an innovative product's added value to the company, the consumer, and the market. The return on marketing investment in innovation is the first dimension. Innovations are judged based on their potential to enhance market capitalization concerning their cost-per-innovation spending, revenue, profits that flow to the company, and equity (brand, firm, and social). 'Percent of income from new goods' is one frequent metric. In addition, an average annual revenue for the industry standard needs to be developed (or a time frame, such as half the product life cycle, must be adopted). The firm must also understand what constitutes "newness or novelty" and what does not (Mohr & Sarin, 2009). A more comprehensive measurement of the "percent of revenue" from new platforms is needed to overcome the measure's restriction of checking only items (Shapiro, 2006).

In order to make the most of their innovations, innovators may need access to additional assets such as competitive manufacturing, strong distribution, vital services, and complementary technologies. Suppose these resources are not available to the innovator but are available to imitators or followers. In that case, the benefits of innovation may go to the imitator or follower instead of the inventor. If this occurs, the imitator or follower may modify the invention or find a way to bypass it, resulting in limited returns for the inventor. Innovations that are commercial successes should result in dominant designs and standards (Gambardella et al., 2021). To evaluate an innovation system's competitiveness, one can consider the time it takes for ideas to turn into practical innovations. This necessitates companies concentrating on their procedures or systems for developing new products, also known as the development period. This factor also influences the entry date for strategic marketing decisions. As is well known, entry timing can determine an innovation's success or failure in the market. When an innovation significantly impacts a market segment, the first business to implement it will have an edge over competitors and will enter the market first, affecting its market share (Teece, 2003). Product innovation is essential to creating and maintaining a sustainable competitive advantage. Companies that persistently innovate can foster better products than their rivals, empowering them to offer their products at a lower price point while keeping up with or, in any event, further developing their overall revenues. In any case, more than innovation is needed to create a sustainable competitive advantage. Companies should likewise market their innovations effectively to receive the rewards of their innovation efforts.

1.2 Sustained competitive advantage

In 1984, the idea of a sustainable competitive advantage was introduced by Day, who suggested different tactics to achieve it. Later, Porter explained two main competitive strategies—low cost and distinctiveness—that businesses can use to attain sustainable competitive advantage, popularizing the term "sustainable competitive advantages." Interestingly, Porter's speech had yet to reach a formal, conceptual formulation. The closest formal definition is provided by (1991), who writes: According to the original text, a company has a lasting competitive edge if it has a strategy that creates value and is not being used by any current or potential competitors, and if other companies are not able to replicate the benefits of this strategy. The following formal, conceptual description is supplied, based on Barney's work as well as the dictionary meanings for each term: A

sustainable competitive advantage is the sustained advantage of putting in place a particular value-creating strategy that is not being used concurrently by any existing or future rivals and the inability to replicate the advantages of this strategy (Nicole et al., 2000). A company is said to have a lasting competitive advantage when its products or services are hard to replicate or expensive for rivals to copy. A strategic resource-based approach requires efficiently utilizing a company's resources to maximize opportunities or tackle challenges. They must also be limited, imperfectly imitable, and free from prejudice to have equal chances for sustainable human resources. (Dirisu et al., 2013)

Competitiveness and innovation can influence competitive advantage. It is important to remember that a company's capacity to innovate gives it a competitive advantage. Since innovation may demand resources to transform a company into a competitive one, corporate resources are crucial to creating innovation. Other crucial elements include customer behavior, which may influence other people's behavior and ultimately influence how inventive people behave and how innovative a corporation is (Filová, 2015). Consumers are looking for businesses to be more innovative in their product creation processes. The success of a product is dependent on consumer purchasing decisions, which determine its market performance. Every business in a specific sector must have a noticeable or hidden competitive strategy. Competitive strategy is based on making assumptions about how a company will approach competition, what will help them achieve their goals, and what policies are needed to get there. Competitive strategy is a mix of the result and the means (policy) an organization can afford to achieve (Zaini et al., 2014). The presence of new rivals, the danger of product replacement, buyer and supplier bidding influence, and rivalry among competitors are examples of different forms of competitive advantage. A corporation with a competitive advantage influences a market competition environment because of advantages that are difficult to duplicate, allowing it to seize and sustain market leadership positions. Product quality, product distinctiveness, and competitive pricing are metrics used to assess competitive advantage. The first criterion focuses on a company's ability to create distinctive products by fusing art and consumer needs. Product quality is the level of design of the firm. The fourth indication, competitive price, measures a company's capacity to adapt the price of its products to those of similar goods and services on the market (Dirisu et al., 2013).

In order to gain a long-term competitive advantage, businesses must be able to create a core set of competencies that will enable them to outperform their rivals in providing services to their target clients. The term "main competence" refers to a collection of unique skills that an organization develops in its core competencies, such as quality, customer service, team coaching, innovation, adaptability, and responsiveness, to outperform its rivals (Nasef et al., 2022). Our services focus on innovation and new product development to meet the market's demands. This means that businesses can leverage innovative products to their advantage. Product innovation is a means to increase value as a business strategy that may help businesses gain a competitive edge and become market leaders. According to Kuncoro Suriani (2018), an organization's sustainable competitive advantage increases when new product innovation levels rise. This indicates that new product innovation affects an organization's sustainable competitive advantage. This is a competitive strategy to support a vendor's success for a long time since it is not readily replicated (Kuntjoroadi & Safitri, 2011). Many experts agree that having superior abilities and resources are critical factors in gaining a competitive advantage. However, not all company resources can sustain that advantage. Resources must meet four criteria for sustainable competitive advantage: rarity, value, imitability, and substitutability. Other writers have delved into the types of abilities and assets that can support such an advantage. In order to effectively utilize resources, businesses should categorize them into financial, physical, legal, human, organizational, informational, and relational resources. Companies should focus on their core competencies, where they outperform their competitors by leveraging resources and

expertise. To achieve sustainable competitive advantage, businesses should combine their resources and abilities uniquely and enduringly. By pooling resources in this way, businesses may concentrate on learning how to effectively coordinate the activities of all employees in order to promote the development of specific core skills (Nicole et al., 2000).

1.3 Price

Price is all a customer provides to gain the edge offered by the company's marketing. In this way, price is how much monetary unit money or other measures (counting products) are exchanged for possession or use privileges charged for a product. Prices are estimated through price moderateness, appropriateness, quality, level of price competition, and limits. A few examinations notice that price plays a part in buying choices (Khayru et al., 2021).

In marketing, price is the most critical factor in generating revenue. Other factors involve using up resources. Price changes have a quicker and more direct impact, and potential customers are easier to persuade based on price. Competitors can respond more efficiently to inquiries about price rather than product features and branding. The price choice is likely the most critical among the marketing mix choices (strategy) for a marked product. The customary way of thinking proposes that the price choice should be consonant with those of different components of marketing technique. Despite the great significance of price, scholastic exploration of valuing issues in marketing has been an unassuming, best-case scenario. This has been valid because of multiple factors: specialists have underlined monetary and cost investigations used to arrive at price choices inside a partnership, and there has been more prominent help for and development of publicizing and product research (Khayru et al., 2021).

1.4 Quality

The role of product quality is inspected to determine its materiality to acquire a comparative advantage. The creators contend that simply by (1) taking into account the chance of feedback among quality and other vital elements and (2) controlling for firm-explicit effects, the role of quality and critical speculations at any point can be assessed. The discoveries propose the significance of product quality and that the fruitful execution of a quality technique can work with expanded benefit in both a concentration and a piece of the pie set (Jacobson & Aaker, 1987). In order to increase customer satisfaction and gain a competitive edge, quality management is a widely used management strategy. It involves improving goods, services, and operational procedures (Kim et al., 2020).

Consumers' assessment of a service's excellence defines quality (Anuwichanont, 2011). Products promoted stand out enough to be noticed if they have good quality. Then again, inferior-quality products will get a bad evaluation from shoppers. Subsequently, the following products should always be of good quality: A product will be viewed as quality on the off chance that it can meet purchaser assumptions, and it likewise determines shopper fulfillment and repurchase interest. However, long makers and advertisers offer good quality products and sensible estimating upheld by a good brand picture as indicated by customers, and it will be more straightforward to legitimize higher costs by empowering buyers to relate and legitimize prices with product advantages to address customer needs. (Djaelani & Darmawan, 2021). The literature on quality administration does not explore how improving product or service quality is related to competitive strategy. In strategy literature, it is important to clearly understand the importance of quality in competitive strategy. A recent study analyzed Doorman's recommendations for "conventional strategy" and found that their measure for "product quality control" was strongly associated with both "low cost" and "diverse" approaches. Two studies on strategy execution found that one

identified high product quality as the key variable in a 'product separation' strategy, while the other viewed product quality control as the primary variable in a 'proficiency' strategy. Despite the abundance of quality management and business strategy literature and the widely held belief among managers that product or service quality is crucial to competitive success, there needs to be more strategic insight or clear, precise evidence linking quality improvement to competitive advantage. (Morgan & Piercy, 1996).

2 Research methodology

The researchers conducted a survey to measure both dependent and independent variables. The methodology involved identifying the independent variables (innovation, including product innovation, price, and quality) and dependent variables (sustained competitive advantage) through design research. This study highlights the effects of the product innovation process in (Diwan) from Kurdistan to Iraq. In order to obtain accurate research findings and test the thesis hypotheses, the researcher used two methods for data collection in the study. The first involved observing academic articles and research related to the same topic, including health books. The second method involved utilizing a forum questionnaire, deemed the most suitable instrument to achieve the objectives of this study. The data was then analyzed using SPSS.

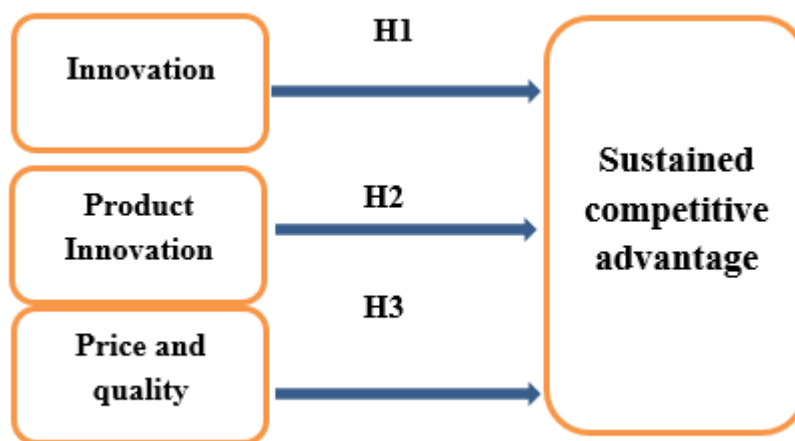
2.1 Hypothesis

H1. Innovation is positively related to sustained competitive advantage.

H2. Product innovation is positively related to sustained competitive advantage.

H3. Price and quality are positively related to sustained competitive advantage.

2.2. Research model



2.3 Questionnaire Design

The researcher crated a questionnaire that the staff answered to achieve the study's goals and collect data. The questionnaire consisted of 20 statements divided into five categories: product innovation (innovation, price, and quality) and sustained competitive advantage. The respondents also provided their demographics, such as gender, age, academic qualifications, current job title, and years of experience, as shown in the table.

Number	Field		Number of statements
1	Product innovation		5
2	Product innovation	Innovation	5
		Price and quality	5
3	Sustained competitive advantage		5
4	Total		20

An organized questionnaire was used to gather fundamental data from the members. We utilized random sampling. The measure is moored on a 5-point Likert rating scale from strongly agree (5) to disagree (1) strongly. Higher scores reflect constructive outcomes for subordinates, while lower scores address adverse consequences.

The researcher used a scale of (Likert Quintet) to answer the questionnaire, stating statements as:

Level	Strongly agree	Agree	No idea	Disagree	Strongly disagree
Points	5	4	3	2	1

Table 1: Descriptive Statistics for Demographic Questionnaire

		Frequency	Per cent
Gender	male	84	52.2%
	female	77	47.8%
Age	below20 year	24	14.9%
	between20-35 year	74	46.0%
	between 35-45 year	37	23.0%
	over 45 years	26	16.1%
Certification	diplomas' degree	46	28.6%
	bachelor's degree	79	49.1%
	master's degree	25	15.5%
	doctorate	11	6.8%
Organization status	employee	37	23.0%
	manager	24	14.9%
	executive director	10	6.2%
	dean	10	6.2%
	other occupations	80	49.7%
Province	Erbil	28	17.4%
	Suleimani	58	36.0%
	Halabja	62	38.5%
	Duhok	13	8.1%

Table 1 provides descriptive statistics of the participants in this research. The data is sorted into categories based on demographic factors such as gender, age, education level, organization status, and province. The table contains information on the frequency and proportion of each category. According to gender, this table shows that most participants were male (52.2%), and the most frequent age group was 20-35 years (46.0%). Most of the participants held a bachelor's degree. (49.1%), with the highest number being government employees and other occupations (49.7%), respectively. Residence of the persons who completed this form (62 persons) (38.5%).

2.4 Correlation and Regression

We used correlation analysis to establish the link between independent and dependent variables. Regression analysis was employed to model the relationship between response and predictor variables. We then utilized simple linear regression analysis and forward multiple linear regression to identify explanatory variables such as innovation, product innovation, and competitive advantage that can predict response variables. Admin. (2023, Mar. 12)

Table 2: Correlation matrix between independent variables and dependent variable

	Process innovation	Price and quality	Product innovation
Sustained competitive advantage	0.606**	0.536**	0.557**

** . There is a significant correlation at the 0.01 level (2-tailed).

Table 2 displays a noteworthy and affirmative correlation between the independent variables related to competitive advantage (0.606), price and quality (0.536), sustained competitive advantage (0.557), and the dependent variable of product innovation.

Table 3: Performing a simple linear regression analysis between process innovation as the independent variable and sustained competitive advantage as the dependent variable.

	Coefficients			Model Summary		ANOVA	
	B	t	P.value	Correlation	R Square	F	p-value
Constant	6.207	7.436	0.000	0.540	0.291	65.340	0.001
Process innovation	0.574	8.083	0.000				

In Table 3, it was found that there is a positive correlation between process innovation and sustained competitive advantage. Pearson's correlation analysis showed a correlation coefficient of 0.540. Based on this finding, it is important to determine the predictive and influential rate of process innovation for sustained competitive advantage. Also, the same table shows the ANOVA table for checking the goodness of fit for the explanatory variable (process innovation) on the response variable (sustained competitive advantage), so the model is appropriate based on (F = 65.340 and P-value = 0.001).

The table above contains the constant, slope, t-value, and coefficient of determination (R square) results. The regression coefficient (B) for process innovation is . 0.574, which means increasing one unit for process innovation will increase the sustained competitive advantage by 0.574. The determination of coefficient (R²) reflects that 38.9% of the variation in competitive advantage is determined by process innovation, and the remaining variation turns to other factors that affect competitive advantage.

Table 4: Simple linear regression analysis between the independent variable (product innovation) and dependent variable (sustained competitive advantage).

	Coefficients			Model Summary		ANOVA	
	B	t	P.value	Correlation	R Square	F	p-value
Constant	5.484	6.230	0.000	0.557	0.311	71.666	0.001
Product innovation	0.570	8.466	0.000				

In Table 4, it is shown that there is a positive correlation between the independent variable of product innovation and the dependent variable of sustained competitive advantage. After conducting a Pearson's correlation analysis, which revealed a weak positive relationship (0.557) between these variables, it is important to understand the prediction and influence rate of product innovation on competitive advantage. Also, the same table shows the ANOVA table for checking the goodness of fit for the explanatory variable (product innovation) on the response variable (sustained competitive advantage), so the model is appropriate based on (F = 71.666 and P-value = 0.001).

The table above contains the constant, slope, t-value, and coefficient of determination (R square) results. The regression coefficient (B) for product innovation is . 0.570, which means increasing one unit for product innovation will increase the sustained competitive advantage by 0.570. The determination of Coefficient (R²) reflects that 38.9% of the variation in sustained competitive advantage is determined by product innovation, and the remaining variation turns to other factors that affect sustained competitive advantage.

Table 5: Simple linear regression analysis between the independent variable (Price and quality) and dependent variable (sustained competitive advantage).

	Coefficients			Model Summary		ANOVA	
	B	t	P.value	Correlation	R Square	F	p-value
Constant	6.372	6.571	0.000	0.468	0.219	44.704	0.001
Price and quality	0.530	6.686	0.000				

The information presented in Table 5 shows a direct connection between the price and quality of a product and its ability to maintain a competitive advantage in the market. Pearson's correlation analysis data indicates a slight positive correlation (0.468) between these independent variables and the dependent variable of sustained competitive advantage. It is important to consider how price and quality impact competitive advantage and to determine their predictive power and level of influence. Also, the same table shows the ANOVA table for checking the goodness of fit for the explanatory variable (price and quality) on the response variable (sustained competitive advantage), so the model is appropriate based on (F = 44.704 and P-value = 0.001).

The table above contains the constant, slope, t-value, and coefficient of determination (R square) results. The regression coefficient (B) for product innovation is 0.530, which means increasing one unit for product innovation will increase the sustained competitive advantage by 0.530. The determination of coefficient (R²) reflects that 38.9% of the variation of competitive advantage is determined by price and quality n, and the remaining variation turns to other factors that affect sustained competitive advantage.

Table 6: Forward multiple liner regression analysis between the independent variable (process innovation, product innovation, price, and quality) and dependent variable (sustained competitive advantage).

	Coefficients			Model Summary		ANOVA	
	Beta coefficient	t-value	P.value	Correlation	R Square	F	p-value
Constant		6.604	0.000	0.709	0.503	79.824	0.001
Process innovation	0.388	5.498	0.000				
Product innovation	0.404	5.722	0.000				
Price and quality	0.530	6.686	0.000				

Table 6 shows the strong positive correlation between the independent and dependent variables (0.709) from Pearson's correlation analysis; it is essential to know product innovation's prediction and influence rate on competitive advantage. Also, the same table shows the ANOVA table for checking the goodness of fit for all the two explanatory variables (process innovation and product innovation) on the response variable (sustained competitive advantage), so the model is appropriate based on (F = 79.824 and P = 0.001).

The above table shows the constant, slope, t-value, and coefficient of determination (R square) results. The regression coefficient (B) for process innovation is 0.388. This means that increasing process innovation by one unit will result in a competitive advantage increase of 0.388 compared to existing product innovation. The coefficient (B) for product innovation is 0.404, which means that increasing one unit for product innovation will increase the competitive advantage by 0.404. This means, that increasing one unit for product innovation will increase the competitive advantage by 0.274 over existing process innovation. The determination of Coefficient (R²) reflects that 44.4% of the variation in competitive advantage is determined by these two independent variables, including process innovation and product innovation, and the remaining variation is turned to other factors that affect sustained competitive advantage.

3 Conclusion

Innovation is an essential factor in creating a sustainable competitive advantage for companies. The role of product innovation in creating and maintaining a sustainable competitive advantage has been widely concentrated by researchers. This paper aims to give a thorough conclusion on the role of product innovation in supporting sustained competitive advantage. Creating new products or improving existing ones to meet evolving customer needs is the essence of product innovation. Product innovation can assist companies in separating themselves from their rivals by offering novel elements or benefits that are not accessible elsewhere on the market. This can assist with building brand loyalty and increasing customer retention. Otherwise, this study analyzes the relationship between product innovation and price and quality with a sustainable competitive advantage. The data shows that there is an effective and positive relationship between product innovation and price and quality. The effect of product innovation on sustainable competitive advantage is enormous. Companies that constantly innovate can create a sustainable competitive advantage by developing better products than their rivals. This can empower them to offer their products at a lower price point while keeping up with or, in any event, further developing their net revenues. Besides product innovation, prices and quality are significant factors in gaining sustained competitive advantage; companies must be careful of these two components in the business environment.

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