ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

SCHOOL OF COMMERCE

DETERMINANTS OF PRODUCT INNOVATION AND THEIR EFFECTS ON SALES PERFORMANCE OF REAL ESTATE COMPANIES, ADDIS ABABA.

BY

ABEBA ZEMEDE LEGESSE

JUNE 2022

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A THESIS TO BE SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF MASTERS OF ART IN MARKETING MANAGEMENT.

ADVISOR: MESFIN WORKNEH (Ph.D.)

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APPROVAL SHEET

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APPROVED BY BOARD OF EXAMINERS

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CERTIFICATION

This is to certify that Mrs. Abeba Zemede has completed her thesis work entitled "DETERMINANTS OF PRODUCT INNOVATION AND THEIR EFFECTS ON SALES PERFORMANCE OF REAL ESTATE COMPANIES, ADDIS ABABA". As I have evaluated, her research is original work and appropriate to be submitted as a partial fulfillment requirement for the Award of Degree in Masters of Business Administration.

_____ _____

Thesis Advisor Signature June 2022

DECLARATION

I, Abeba Zemede, hereby declare that the thesis entitled "DETERMINANTS OF PRODUCT INNOVATION AND THEIR EFFECTS ON SALES PERFORMANCE OF REAL ESTATE COMPANIES, ADDIS ABABA" is my original work and submitted by me for the award of the Degree of Master of Business Administration of Addis Ababa University at Addis Ababa and it hasn't been presented for the award of any other Degree, Diploma, Fellowship or other similar titles of any other university or institution and that all sources of material used for the study have been appropriately acknowledged.

Abeba Zemedie

_____ _____

Student Signature, June 2022

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ACRONYMS AND ABBREVIATIONS

AACLDA	Addis Ababa City Council Land Development Authority
DOI	Diffusion theory of Innovation or Diffusion of Innovation
EIA	Ethiopian Investment Agency,
EIA	Ethiopian Investment Agency
RBV	Resource-Based View
SWOT	Strength Weakness Opportunity, Threat
TQM	Total Quality Managements

ABSTRACT

This study aimed to investigate the effect of product innovation on sales performance of selected real estate companies in Addis Ababa. A quantitative research approach along with explanatory research design was applied. Sales and Marketing staffs of ten real estate companies were taken as a study population. A sample of 345 respondents was selected by applying the convenience sampling technique. A total of 328 valid usable primary data were collected by using self-administered questionnaire. The data analysis was carried out by using descriptive statistics while the inferential statistics was adopted for multiple linear regression analysis by the help of SPSS 21.0 statistical software. Based on the analysis, the results revealed that product innovation had a positive and statistically significant relationship with sales performance. Among the five variables of product innovation, product technical innovation had the highest positive and significant effect on sales performance followed by strategic innovation and internal process technical innovation. However, administrative innovation and technological innovation had the least contribution to the sales performance of the real estate companies. In conclusion, innovative design of commercial buildings and residential houses, the internal process of the organization to on time delivery, thoroughly understanding the market environment and providing administrative support are good predictors of sales performance of the selected real estate companies. Management's concern on improvement of unique and comfortable building/housing design, prompt delivery and minimization of production.

Keywords: Product Innovation, Strategic Innovation, Real Estate Company, Administrative Innovation, Resource-Based Value, Technological Innovation

CHAPTER ONE
INTRODUCTION

1.1. Background of the Study

The development of business strategy is concerned with aligning consumers' preferences and buying patterns with the firm's capabilities to ascertain the competitive advantage of the business based on its available resources and skills (Holmes and Hooper, 2018). A firm's business strategy strives to achieve its objectives by delivering quality products and services that define the firm's value proposition in each target market. Thus, a firm's business strategy should be able to provide the company a competitive advantage over strategic competitors within the industry (Webster, 2014).

Product innovation, as a marketing strategy, is crucial in business planning and widely recognized as the foci to the success of most companies. New or differentiated products generate increased sales and profits that promote organizational growth in the long run (Crawford, 2015). New product development, as essentially an interdisciplinary activity, is demanding input from managerial, operational, technical, marketing, finance, and other staff. The successful innovation of a differentiated product depends on administrative, technological, and strategic innovation. Cooper (2004) posits that some of the determinants that influence innovativeness of an organization are its structure, resource compatibility, process proficiency, technology complexity, marketplace characteristics, information acquired, and innovativeness of the product itself.

Product innovation is a type of innovation that is the induction of a product, either improved or radically changed its features or intended uses (Laursen, 2012). The rewards of an efficient innovation program are highly evident regarding sales, growth, and profits. Teece (2016) notes that the relationship between product innovation and sales performance is understandable since differentiated products are a key mechanism in which firms can achieve new sales, improve market share and steal business from competitors. However, past studies illustrated that attempts to familiarize new or differentiated products often fail either during technological search phases or market introduction phase (Ven, 2012; Clausen, 2013; Cooper, 2018). The commercial and technological uncertainties regarding the introduction of new products onto the market are considerable that trying to prevent businesses from profiting from new product induction or discouraging them from trying at all.

Despite some companies are still being successful in introducing new or differentiated products and reaping the high economic benefit as a result, why some firms excel better than others is the main

question, and holds the premise to gain insight into the issue of why companies' sales performance consistently varies (Van, 2013; Clausen, 2013; Nelson, 2011). Various determinants like firm size, marketing strategy, information sourcing, and research & development, have been studied to see if they promote product innovation and the sales performance of new products (Salter, 2006; Lausen, 2012; Zaritsky, 2012). However, most scholars have overlooked the significant impact of innovations other than technological related innovations and their impact on the sales performance of the new product, at odd with seminal contributions to innovation theory.

Schumpeter (2014), the prominent influential theorist about innovation, conceptualizes innovation as a new policy that a businessperson commences to minimize the overall production cost or increase the demand for its products. His theory includes market innovation and argued for a broad understanding of innovation that categorizes under product, process, input, organization, and market (opening up of a new market) innovation (Drejer, 2016). However, the theory fails to consider uncertainty as a determinant factor that promotes an increase in profits. According to Knight (2017), the main emphasis is on uncertainty rather than innovation. Even in the dearth of innovations, the entrepreneur can profit if he can predict the future with a reasonable level of certainty.

In today's competitive business arena, the entrepreneur is the one who bears full responsibility for the company's risk. The entrepreneur's job is to not only offer new ideas, but also to manage the business in the most effective way possible by coordinating the operations of many production variables. As a result, profits are the outcomes of the entrepreneur's better organizational ability as well as his or her innovations (Clausen, 2017). Despite recent gains in researchers' understanding of the wide Schumpeterian conceptualization of innovation, the focus has shifted to non-technological innovation (strategic and administrative innovation) in addition to technological innovation.

Thus, the purpose of this research paper was to identify the determinants of product innovation and their relationship to sales performance. This can be accomplished by assessing the influence of strategic, administrative, and technological innovation on product innovation success as well as their ability to improve sales performance. Sales and marketing forces of selected real estate companies will be used as examples of how real estate housing products are being subjected to new creativity, as well as several cost-cutting options through effective project implementation. The survey focused on the sales performance of real estate products as sales are a clear signal of market adoption, sales growth, and overall organizational success.

1.2. The Real Estate Industry in Ethiopia

Ethiopia is one of the few countries whose constitution defines real estate and land ownership. Referring to the Ethiopian constitution, the right to own land belongs solely to "the state and the people," and citizens may lease it (for up to 99 years) but not mortgage or sell it (Ethiopian Investment Agency – EIA, 2011). Land is likely to be rented to the most productive user for a maximum of 20 years. There is considerable unrest and mistrust among the population as this regulation for land ownership (or lack thereof) leads to corruption, land snatching, and low productivity. A number of factors, such as rapid urbanization, increased migration, and a spike in population growth, are also straining the government's resources to meet its people's basic needs.

Residential, commercial, industrial, and land real estate investments are the four categories of real estate development/investment areas. Ethiopia's real estate industry is primarily comprised of residential, commercial, and industrial properties (recently emerged). Due to a lack of access to private land ownership, land as a major asset class continues to be overlooked as a mode of investment (Ethiopian Constitution, 1995). Cheating, project completion delays, and non-completion are all common here, so the major developers of real estate companies are also not trusted. This is changing in recent years, with increased local, private, and foreign investment in housing and development projects to address Ethiopia's housing shortage. The private real estate construction boom has resulted in a drastic improvement in living standards, driving up demand, particularly in Addis Ababa. `

1.3. Statement of the Problem

Companies in the real estate business have begun to recognize the importance of innovation in the face of fierce competition. According to Acquah (2015), technological improvement along with escalating high competition among real estate developers are rapidly eroding existing real estate products and replacing them with entirely new or improved ones. Thus, innovation is an essential component of corporate strategies for reasons such as employing more effective production processes, outperforming competitors in the market, pursuing a positive reputation in the eyes of customers, and achieving long-term competitive advantage. Thus, while product innovation is an important contributor to a company's long-term performance, its problem in improving sales performance stems from a failure to deal with change (Majahan and Wind 2012; Dougherty and Heller 2014).

Over the last few decades, Ethiopian real estate companies, particularly in Addis Ababa, have become more competitive and robust. Among the four (residential, commercial, industrial, and land) real

estate businesses in the country, the industry is primarily involved in the residential and commercial real estate businesses. The government, nonetheless, owns both land and industrial real estate investments, and only industrial zones are entering to the market to transform the Agri-based economy into a manufacturing industry-based economy (EIA, 2020). Due to the obvious gap in demand-supply the extremely high prices of real estate buildings and residentials are lucrative businesses (Mehari, 2016). These encourage many new businesses to enter the market, resulting in fierce competition (Beza, 2019).

Prior studies have shown that failure rate of innovated or new products on the market is increasing in a competitive market in particular (Cooper and Kleinschmidt, 2016; Chand, 2019; Prabhu and Anti, 2015). A new product is evaluated not only on its own value or merit, but also on its value in comparison to the competition. Despite other determinants such as price and location, product innovation is a major contributor to ensuring a company's long-term performance in the real estate market (Vonortas, 2017). Despite widespread dissemination of innovative product ideas and tools, many companies in the industry fail to adopt the myriad tools, techniques, perspectives, and approaches for being innovative (Kleinschmidt, 2018).

The assumption underlying product innovation is that product innovation will result in a noticeable business outcome, such as higher profit margins, sustained customer satisfaction, and increased competitiveness for the organization. If the problems caused by product innovation are identified and addressed, organizations will use product innovation as a growth strategy (Ajimati, 2012). Several studies (Kleinschmidt, 2018; Kamakia, 2014; Zahra, 2012) have focused on the factors that contribute to the success of a product. The findings revealed that strategic innovation (a better understanding of the needs of the consumer, as well as paying close attention to marketing and publicity) and technological innovation are the factors that cause a product to succeed or fail in the market (effective utilization of technology from the outside). Administrative innovation in terms of leadership skill and authority of managers within an organization, as well as efficient product development, have received less attention as a factor for product success.

Therefore, this study aimed to understand the effect of product innovation on the sales performance of selected real estate companies in Addis Ababa. The real estate product innovation (residential houses in particular) in terms of administrative, technological and strategic innovation were examined to analyze their effects on the sales performance of the companies. The survey conducted on the sales

and marketing staff of the selected real estate companies in Addis Ababa. It contributes to the existing literature in regards to filling the gap by addressing the relationship of sales performance and product innovation in Ethiopian context. The fact that to be capable of ongoing product innovation, firms need to adjust or adapt their management and organizational strategy which is believed to be a considerably more important change than introducing new processes or performance metrics. It is necessary to assess innovation capabilities (both technological and non-technological) in order for businesses to understand how to move from non-innovative to inventive entrepreneur.

1.4. Research Questions

1. What is the relationship between product innovation and sales performance of real estate companies in Addis Ababa?
2. What is the influence of technological innovation on the sales performance of real estate companies in Addis Ababa?
3. How does strategic innovation affect the sales performance of real estate companies in Addis Ababa?
4. How does administrative innovation affect the sales performance of real estate companies in Addis Ababa?

1.5. Objectives of the Study

1.5.1. General Objective

The general objective of the study was to figure out the determinant factors of product innovation and their relationship with the sales performance of selected real estate companies in Addis Ababa.

1.5.2. Specific Objectives

i. To understand the effect of technological innovation on the sales performance of real estate companies in Addis Ababa
ii. To point out the effect of strategic innovation on the sales performance of real estate companies in Addis Ababa
iii. To assess the effect of administrative innovation on the sales performance of real estate companies in Addis Ababa

1.6. Significance of the Study

The study seeks to investigate the relationship between product innovation as a strategy on sales performance at selected real estate companies.

- The findings of this study would bring to light the types of innovation strategies adopted by real estate companies in gaining a competitive advantage.
- Meanwhile, the output of this study would establish the relationship that exists between product innovation and sales performance. Examining the connection between firm performance and innovation activity may be useful for company management for two reasons. To begin with, managers could be able to optimize decision-making processes about a new output line. Second, this could aid in the more effective allocation of resources.
- Again, the result of the study will help impact the decisions of marketing practitioners, managers of construction projects, and most especially the real estate companies to put in place effective innovative strategies so they can continue to stay in business and increase sales. Also, the study will be very beneficial for academic purposes.
- The findings of this study will contribute to knowledge by serving as a reference for academic purposes.

1.7. Scope of the Study

The scope is divided into three sections: geographic scope, contextual scope, and methodological scope.

Geographically, the scope is limited to twenty top-performing real estate developers in Addis Ababa. Other real estate companies in the city and regional states are purposefully excluded because Addis Ababa is the only metropolitan capital city where the majority of the real estate companies' offices and investments are located.

The research also includes an assessment of sales & marketing personnel's perceptions regarding product innovation and sales performance. Administrative, technological, and strategic innovation are regarded as independent variables that explain the outcome of sales performance (dependent variable). Other variables, such as price, promotion, and site location, are purposefully excluded because they are not the focus of this study.

The quantitative research approach was adopted. The opinion of sales and marketing staff from 10 selected real estate companies were taken in quantitative forms for analysis as the aim of this study was to figure out the cause-effect relationship of the study variables. The survey was conducted in the period of March-May 2022.

1.8. Definitions of Key Terms

Several terms run through the entire report. Prominent among them that runs through the entire work are Innovation, product innovation, and sales performance.

Product Innovation: It can be defined as the invention of new products, changes in the design of established products, or the use of new materials or components in the manufacture of established products (Luecke and Katz, 2003).

Technological Innovation: is defined as the process of combining and reorganizing knowledge to generate new ideas. (Nelson, 2011).

Strategic Innovation means setting a formal plan and establishing an organization's long-term strategy to achieve the organization's goals and objectives. (Drejer, 2010).

Administrative Innovation: It is a process of developing a new management system, new administrative processes, and staff development programs.

Sales Performance is the effectiveness of the sales team, both individually and as a whole, in selling activities; the ability to achieve sales goals. (McKenzie, 2000).

1.9. Organization of the Study

There are five main chapters to this study. The study's background, problem statement, research objective, hypotheses, significance, and scope are all included in the first chapter. The second chapter is devoted to a literature review. It contains relevant theories, conceptual and empirical discussions that lead to the identification of research gaps and the creation of a conceptual framework. The third chapter covers the research design, target populations, sampling techniques, sample size, data collection instruments to be used, and data analysis and presentation methods. Demographics, descriptive and inferential statistics, conclusions, and interpretations are covered in the fourth chapter. The concluding chapter summarizes the study's main findings, conclusions, and recommendations.

CHAPTER TWO

REVIEW THE RELATED LITERATURE

2.1. Theoretical Review

This theoretical review examines the theory that underpins the study. Although there are several theories that could have been reviewed in this study, the theory that best suits this study is that of Diffusion theory of Innovation or Diffusion of Innovation (DOI) Theory as well as Resource-based view (RBV).

2.1.1. Resource-Based View (RBV)

Every firm, according to Wernerfelt (2015), is distinctive in its approach due to the services it delivers or the assets it manages. RBV is primarily concerned with the gathering of resources. According to this viewpoint, a company's resources may comprise management and/or entrepreneurial abilities. Furthermore, he claims that the organization's resources might be classified as tangible or intangible. The conclusion was reached that tangible and intangible assets or resources are the most essential propositions for obtaining a competitive desire in order for companies to get a competitive advantage over their competitors during the implementation of the company's product market strategy. Furthermore, Rumelt's (2014) thesis has demonstrated that years of resource consolidation by businesses tend to provide economic value dependent on the nature or context of the services.

Human resources, accountability, organizational processes, organizational culture, and intangible assets, according to experts such as Wright, McMahan, and McWilliams (2010), as cited by Miller and Shamsie (2016), are difficult to replicate and improve competition. profit. The firms' skills and resources are shared, and they do not sit back and do nothing. He also suggested that important or unique goods and skills will ensure the desire to compete.

Furthermore, Conner (2011) argued in RBV that, in order for companies to gain a competitive advantage, the firm must generate greater economic value to its customers or clients than its competitors, and that in RBV, this can only happen if competitive advantages can be created from effective resources. Companies generate high profits at the same cost. Thus, in RBV, companies compete in the product market by offering differentiated products or acquiring less expensive alternatives. According to Brahma and Chakraborty (2011), a service, while potentially valuable, may also be detrimental if the corporate competitive gains appear to be more efficient and effective when

compared to competitors or otherwise. In short, it can be concluded that, if the company's competitive ambition is not met due to the hiring of those resources, RBV cannot be made.

2.1.2. Diffusion of Innovation (DOI) Theory

The Diffusion of Innovation (DOI) Theory, developed by EM Rogers in 1962, is one of the oldest social science concepts. It arose from the link to explain how, over time, an idea or product gained traction and spread (or spread) through a certain number of people or a social system. In this regard, this viewpoint can help explain how real estate companies have adopted the product idea and the methods they use to ensure that the new product idea receives widespread attention among its customers. As a result of this spread, people, as members of a social system, accept a new idea, behavior, or product.

The people in this study are the sales and marketing staff of these companies. The acquisition implies that a person does something different from what they have previously done (i.e., buying or using a new product, acquiring and developing a new behavior, etc.). This means that real estate companies must develop new products that are distinct from their previous offerings. The key to discovery is to perceive an idea, behavior, or product as novel or novel. This is how distribution is made possible.

It is important to note that in a social system, the adoption of a new idea, behavior, or product (i.e., "new invention") does not occur simultaneously; rather, it is a process in which some people (more likely to accept renaming than their competitors. Researchers discovered that people who use new naming prematurely differ from those who use it later. According to Wang and Lee (2011), there are five stages of acquisition, and while the majority of people decline, understanding the characteristics of the target population is still necessary in the middle stages.

Founders are people who want to be the first to try new inventions. They are lively and open to new ideas. These people are not afraid to take risks and are frequently the first to come up with new ideas. Very little, if anything, needs to be done to attract these people.

Early Adopters are thought leaders. They enjoy taking on leadership roles and welcome new challenges. They are already aware of the need for change and are therefore open to new ideas. Brochures and worksheets are two strategies for reaching this demographic. They don't need information to persuade them to change.

The First Most - These people are not usually leaders but accept new ideas before the average person. That being said, they usually need to see proof that the new design works before they even intend to use it. Strategies for attracting this population include stories of success and evidence of the effectiveness of new inventions.

Late Majority - These people are not skeptical of change and will only use it after the majority has tried it. Strategies for attracting this population include knowing how many other people have successfully been renamed.

Laggards are people who are traditionally bound and very conservative. They are resistant to change and are a difficult team to bring to the board. Statistics, fear complaints, and pressure from people in other adoption groups are among the strategies used to attract this figure.

This theory has been used successfully in many fields including communications, agriculture, public health, criminal justice, social work, and marketing. In advertising, the proliferation of innovative theory is used to accelerate the adoption of new products often aimed at giving customers better satisfaction. As a result, this theory will be useful to explore the types of innovations adopted by selected real estate companies and how they affect their retail, targeted, and growth prices. One major limitation of the theory is that it does not take into account human resources or community support for adopting new behaviors (or innovation). This appears to imply that resources are not required for product development, which is not entirely correct. As a result, it is necessary to incorporate resource theory into the discussion, which is why resource-based theory must be examined (RBV).

2.1.3. Product Innovation Concept

The process of introducing new products or services to the market is referred to as innovation. It has the potential to create new markets, which can have either a positive or negative impact on the industry (Hauser, 2005). This allows competitors to be closely monitored in order to determine whether they are market leaders, challengers, fans, or niches. This aids in the development of a competitive marketing strategy that will pit the organization against its competitors.

The introduction of new products continues to increase year after year, but the failure rate has not improved over time, continuing to exceed 80% in some industries (Cooper and Edgett, 2008). They emphasize product innovation as the foundation of any company's economic development. A corporate economic unit's establishment and renaming are critical pillars. Understanding the process, its costs, and management ensures that nothing is left to chance. New things must be linked to growth

and the financial matrix. According to Hauser (2005), it is not surprising that there is now a need to link innovation with growth and the financial matrix. The difficulty with managing new things is that managers must do so against the backdrop of ever-falling technology, competitors, and emerging markets (Owusu, 2009). According to Hauser (2005), it is not surprising that there is a growing need to connect innovation with growth and the financial matrix. The difficulty in managing new things stems from the fact that managers must do so in the face of ever-falling technology, competitors, and emerging markets (Owusu, 2009).

Booz (1982), according to American Management Advisers, developed two critical criteria to consider. The first-dimension concerns how a new product in the system should be evaluated, as well as how new the product is to the company and in the market. According to Ettlie (2006), while innovation is related to it, it is rarely associated with it. Innovation builds on design concepts to make a distinct and visible difference in the context in which the design is implemented. According to Cooper (2001), innovation starts with creative ideas. Therefore, he described the new design as a successful implementation of design ideas within the organization. He was of the opinion that the ingenuity of individuals and groups was the beginning of innovation.

According to Davila, Epstein, and Shelton (2012), for innovation, there must be a generalization of the concept of design or understanding that must be used to help make a real difference that will lead to new or changed business processes within the firm or changes to a product or service provided. Product development is also an organizational or administrative process. Davila (2012) demonstrated that innovation is a management process that necessitates the use of tools, rules, and ethics. From this point forward, the emphasis is on introducing specific strategies to the organization's general processes and methods of production, processing, and compliance with those ideas that lead to significant organizational improvements in terms of improved, new, or innovative products. According to these various theories, researchers see innovation as a pillar of successful creative idea implementation within organizations. Individual works of art may be displayed, but the creation of new things occurs only within the context of the organization. In the discussion of individuals and the creative work of the organization, Davila used the term "new inventions" interchangeably with the name of the invention (2012).

2.1.4. Types of Innovation

People usually think of product innovation when they think of inventing new things. Product development can be accomplished in three ways. The first form is the creation of a new product; the second is the enhancement of existing product performance; and the third is the addition of a new feature to an existing product. As a result, product innovation can be classified into two stages: new inventions aimed at developing new products and new inventions aimed at improving existing products. There are various types of innovation. Classification can vary depending on innovation, such as the design of social and cultural systems, the environment, business models, products, services, processes, organizations, institutional arrangements, drivers of innovation (technology, markets, design, users, etc.), or the intensity of new inventions.

One of the most common types of innovative forms of developing (continuous) and solid (permanent) (Bessant and Tidd, 2009). Radical (never-ending) - necessitates a framework change (the company does what it has never done before). This type of creativity allows you to offer something completely new and change the rules of the game. Creating new (continuous) innovation - this is an advancement within a predetermined framework of solutions (the company is doing better than we have already done). This type of innovation frequently provides greater long-term benefits than major changes that occur from time to time.

2.1.4.1. Radical Innovation

Innovative approaches are those that are based on a dramatic increase in technological advances, allowing for completely new features or the development of greater order in products or costs. Strong new inventions are frequently identified behind the scenes, usually based on their market or industry impact. Innovation is viewed as a hazy and risky process based on emerging or underdeveloped knowledge and operating in unfamiliar technologies or business domains.

Product sales based on large advances in technology advancement (Leifer, 2000), resulting in increased features or performance over what was previously available in the industry or market, are examples of strong innovations (Hill and Rothaermel, 2003). This has the potential to shift the power balance in existing markets or even create new ones. They cause a lot of uncertainty in the marketplace and in the industry, as well as in the company that offers them. New inventions have often been characterized as haphazard and reliant on human strength and perseverance (Leifer, 2000). Without these people, it is often assumed that, new innovations would not have been possible because

managers would have little incentive to look beyond current business and ongoing development (Chandy and Tellis, 1998).

As a result, individuals play a crucial role in the implementation of dynamic naming. Nonetheless, they have a difficult challenge ahead of them. In huge, complicated businesses, it's sometimes more necessary to please current consumers or increase efficiency than it is to encourage new creation. As a result, individuals attempting to safeguard resources and support innovative projects may confront apparently insurmountable obstacles. They will have to navigate the organization's organizational channels and overcome resistance at multiple levels (Markham, 2013). They might be able to secure upper management's support (Date, 1994). However, they bear a significant portion of the burden of developing these new methods. Flexible energy, or the ability to bring about change, is necessary for new invention. Clearly, the dynamic force enables businesses to go beyond their current procedures and try new things (Haeussle, 2006). They include procedures that allow people to experiment while remaining focused and guided. As a result, companies may be able to keep introducing new objectives ahead of their competitors.

Organizations must think outside of their current businesses to innovate, especially when they reach a significant conclusion. However, in many circumstances, these companies fail to promote and will reject new ideas that result in considerable change, preferring instead to adopt new goods that are more compatible with their current operations. These judgments will be influenced by the organization's history, previous triumphs, and market share leadership, making them much more tough than usual. However, as the profitability of existing enterprises declines over time, these groups will need to regularly rejuvenate their businesses (Christensen, 1997). Humans, instead of a strong commitment, are responsible for most of the innovations (O'Connor and McDermott, 2004).

New inventions are uncommon, and when they do occur, it is usually due to the might of an opposing organization being able to control it. Management's involvement, on the other hand, may include not only disagreement but also supportive activities such as speaking about broad ideals and encouraging employees. According to this viewpoint, empowerment can be a fundamental driver of organizational innovation because new ideas can originate from anywhere (Gemünden, Salomo, and Hölzle, 2007).

2.1.4.2. Incremental Innovation

Continuous or evolving innovations do not detract from the company's current investments in technology and knowledge skills, projects, production processes, and equipment. As a result,

emergent breakthroughs do not necessitate substantial changes in technical skills, knowledge, organization, or other aspects (Gemünden, 2007). Growing innovations are items that introduce new features, benefits, or enhancements to established technologies on the market. A familiarity, refinement, and development of existing products or production and delivery methods are all part of the process of developing a new product (Song, Dyer, and Thieme, 2003).

Emerging innovations in the development of existing factory products that better meet the needs of current and potential customers are referred to by Benner and Tushman (2003). Improved design is defined as adaptive, flexible enhancements or line extensions that incorporate new features that provide added benefits. To the extent that advanced innovations include changes in basic technology, those changes in the technology path are frequently minor and impose significant constraints on existing company skills. A new design will only emerge as a result of a minor marketing touch or an S-curve in technology.

Growing new inventions will not result in significant cost savings seen only in strong new or new constructions. Growing innovation is important in two ways: first, as a competitive weapon in a technically mature market; and second, simple processes based on existing technology can help warn businesses in good times about the threats and opportunities associated with transitioning to a new technology environment. For many businesses, improved development is the foundation of the organization.

New innovation is possible at all stages of the product development process. Research and development may use existing technologies to improve existing product design during the design phase. Line extensions may result in new growths at the maturity stage of a product's life. Borrowed technology from another industry may be novel in another market. This borrowed technology will be considered a new emerging innovation if it does not change at a major level, whether it is technology, S curves, or microlevels of both curves (Cheng and Shiu, 2008).

One of the key features of the new design is that it occurs at the subsystem level as the changes involved in the beginning of one or a few parts of the production process, even though they may have significant effects on other components or the system as a whole. Changes are viewed through the eyes of reform firms. This is significant because the degree of radicalness of innovation varies from manufacturer to user. A significant modification to a piece of equipment may result in only a minor change in the larger system in which the machine is assembled (Garcia and Calantone, 2002).

New design is created not through mergers, but through decisions made within each business.

Their influence can be felt at the corporate, product, and industry levels. Improved upgrades may be used by firms to gain a competitive advantage, but they are also shocking factors that allow firms to respond to changes in their area; for example, they may change their fuel consumption patterns when the related price levels change. At the product level, the innovation that continues after the cutting of the outstanding design enables further development, extending the product's life span (Adner and Levinthal, 2001).

In fact, in today's highly competitive market environment, pursuing both strong and upward values is critical. Today, a successful founder's innovative strategy consists of an innovation pyramid that combines a few big bets at the top, a large number of promising midrange ideas in the testing phase, and a broad base of ideas for early stage or emerging innovations. Not every creative idea has to be a blockbuster, and significant profits can be generated by a moderate amount of new or growing innovation. As a result, the role of innovation at the bottom of the innovation pyramid (innovation) in a business strategy is critical, and companies should investigate how they can be used to effectively compete in the market (Kanter, 2006).

2.1.5. Dimensions of Product Innovation

2.1.5.1. Administration Innovation

There is no single definition of Administration Innovation. According to Damanpour (2014), the development of new management devices is considered in contrast to technological innovation and relates to new management and administrative processes and procedures. For some researchers, innovation refers to new cultures and structures in the art form, indicating that they lack a universal model (e.g., Chandler's (2002)). Some researchers, however, see management renaming as something new in the company and borrowed from elsewhere, possibly from firms and peers (e.g., Zbaracki, 1998). New management processes aimed at improving robust performance are used to innovate new management systems. It frequently discusses changes in what and how managers do their jobs (Hamel, 2006). As a result, the development of new management tools has been linked to changes in how managers manage their guidelines, make decisions, coordinate tasks, and motivate employees (Hamel, 2006).

These changes are seen as part of organizations that have new administrative processes, processes, systems, and a new governance structure. Significantly, in competitive and volatile markets such as

China, innovation strengthens the firm's internal processes, which significantly improves firm financial performance (Han and Nielsen, 2018). Despite the fact that Schumpeter pioneered several innovations (product, market, process, organization, etc.), Not all new strategies are equally useful; new innovations (notable for top management practices) have significant benefits to the company's profits due to R&D operations and new strategies (Nemlioglu and Mallick, 2017).

Furthermore, it has been proposed that the development of new management tools enables business firms to implement the various new and technological processes required to operate operations effectively (Hollen, Bosch, and Volberda, 2013). For organizational growth and profitability, innovation is regarded as a critical tool. It aids in the effective response to external challenges in the field of Structural Equation Modeling (SEM).

The creation of new management tools can lead to significant improvements in robust performance in dynamic environments (Seo and Chae, 2016). New management tools benefit organizations in a variety of ways, but they also play an important role in improving productivity and performance. According to Hinterhuber and Liozu (2017), the new management system implements various policies and procedures to effectively utilize resources, thereby assisting organizations in achieving long-term competitive positions. Senior management executives appreciate the critical role of establishing new management elements in the organization's success. As a result, they devote sufficient time and effort to the development of new inventions in various departments (Mol and Birkinshaw, 2009).

Although management processes benefit organizations in many ways, the role of re-designing a senior management team in terms of product development and process, which greatly improves profitability, cannot be overstated (Haneda and Ito, 2018). Innovating new management tools helps an organization achieve greater efficiency by integrating multiple processes within the organization in novel ways. More importantly, innovation is an important motivator for organizational performance. It is argued that the development of new administrative instruments has a significant and positive impact on strong financial performance.

2.1.5.2. Technological Innovation

According to Damanpour and Evan (1984), technological innovation is "the application of the idea of a new product or service or the introduction of new products into an organizational production system or service performance." However, Singh, Mathiassen, and Mishra (2015) state in their

research that material technology is used in technical matters in organizations. A company, for example, can create standard functions and resources to process an application to create an application. Furthermore, they claim that technology tracking is a potential guide to a technology tool that aids in the development of a technological paradigm. likes how the introduction of new management tools leads to stability and, as a result, a high level of performance In today's business world, senior executives in various organizations have made innovation a top priority. It is argued that in volatile markets, those companies that use cutting-edge technology in their products and services are successful (Coccia, 2017).

According to strategic management literature, a company with unique resources and strengths can achieve a stable competitive position in a volatile market and outperform its closed competitors and industry competitors (Barney, 1991; Anwar, 2018). New technological innovations enable businesses to create a wide range of new products and services that are critical to high performance and profitability (Camisón, 2014). In a volatile market, those companies with high technological know-how become market leaders and earn high profits (Chae, Koh, and Park, 2018). The goal of a high-profit firm can be achieved, in particular, in emerging markets, by developing innovative technologies (Li and Liu, 2006). In an unpredictable situation, the invention of technology elevates firms to the forefront of a specific industry and allows them to easily capture market share.

On the other hand, a lack of new or minimal technological know-how can reduce firms to effectively boost their sales growth. Technological innovations do not only occur in a particular industry but various sectors such as manufacturing and services enhance their performance through new technological innovations. Compared to the invention of non-technical materials, technological innovation has a much greater impact on robust performance and efficiency (Ryu, 2016). New technological innovations are regarded as an important driver that contributes significantly to solid performance.

2.1.5.3. Strategic Innovation

Firms that are aggressive are determined to be market leaders. The company's outrage is reflected in the allocation of resources, research, and investment for development and innovation. The analysis demonstrates that the company can conduct a SWOT analysis in order to implement a competitive renaming strategy. Defense demonstrates that new firms are attempting to safeguard their market positions. The future demonstrates that businesses can devise long-term strategies to ensure the

success of new ventures. To maximize profits, active firms seize market opportunities and innovate. They initiate new initiatives and rise to positions of leadership. For a company to succeed, innovation is a risky decision. Taking a risk, on the other hand, leads a company to achieve and maintain higher performance.

An aggressive firm, according to Porter (1985), does things differently by redesigning, changing the context by redefining the product and distribution channels, and surpassing the leader. According to MacMillan (2017), a company can outperform its competitors by spending far more money on advertising, product quality, or production capacity. Venkatraman (2010) believes that the firm can outperform its competitors by setting low-cost market share goals and attempting to achieve them.

According to Miller and Camp (1985), the most successful aggressive firms do not escape the market that is defined "in terms of their value, size, and types of customers, as well as the breadth of their product line" (Lumpkin and Dess, 2016). According to Miller and Friesen (2014), analysis demonstrates problem-solving behavior. They (2014) believe that the magnitude of the tendency to delve deeply into the causes of the problem and produce the best solution is the most important indicator of decision-making (Venkatraman, 2009).

According to Venkatraman (2009), self-defence reflects the company's behavior in defending its market position. Protective firms regulate a small number of product markets and strive to be efficient and productive. Protective firms locate themselves in safe areas and operate in stable markets. According to Jaworski and Kohli (1996), the future is leading firms to construct a long-term horizon and provide an opportunity to transform creative ideas and opportunities into new strategies. According to Kandampully and Duddy (2009), the future is focused on the potential for innovation based on predicting future changes and developments in the environment and balancing future market needs. According to Chandy (2008), the future assists the company in developing long-term innovation plans in anticipation of the opportunity to innovate (Aman and Yimaz, 2008).

Speed reflects a campaign to seize and capitalize on opportunities to shape the environment in order to influence styles and generate demand. Competing anger, on the other hand, reflects the company's relationship with its competitors as well as the company's response to market and demand. Speed demonstrates meeting a need, whereas competitive edge competes with demand. According to Chen and Hambrick (2015), "the firm must operate and respond to its environment in terms of technology and innovation, competition, customers, and so on." The acceleration involves taking the first step in

creating an environment for the benefit of the individual; response involves familiarizing competitors' challenges." Venkatraman's STROBE formulation (2009) highlights the rapid scanning aspect associated with seizing the opportunity.

According to Morgan and Strong (2008), predicting market success for a new product is extremely difficult. They (2011) go on to say that risk encourages market opportunity behavior, such as searching for and transforming market opportunities into new products and processes. According to Forrester (2010), firms that take risks with innovation can gain a competitive advantage. In terms of risk-taking, Tabak and Barr (2009) argue that there is a distinction between innovative and non-innovative firms. According to Aman and Yilmaz (2008), risk has a positive effect on composition capacity.

2.1.6. Firm Performance Concept

A company's ability to profit and grow in order to achieve its overall strategic goals is linked to strong performance (Knight, 2004). It is the interaction of actions taken in relation to competitive forces that allows a company to adapt to the external environment, combining competence and usefulness (Miller, 1998). According to Yahya (2013), the effectiveness of a new factory is dependent on the opportunities provided by its external environment. This means that construction firms become more competitive in the emerging market when they prioritize new jobs that help them build their reputation. In fact, one important driver of innovation is the desire of businesses to improve their business performance and competitiveness (Alpkan, 2011).

McAdam (2004) looks into the connection between corporate performance and familiarity with innovation and research. It has been discovered that the way businesses view innovation has higher scores in competitive areas in order to gain competitiveness. Yahya (2013) investigated organizational, product, process, and marketing establishments in various aspects of strong performance, production, market, and finance using an integrated analysis of new operational performance on 184 manufacturing firms operating in Turkey. The findings indicated a positive relationship between new processes in firm operations.

Zhao (2002) discovered that reading habits are important for development and performance in his study on the relationship between reading habits, strong innovation, and strong performance in US firms. Terziovski (2010) investigated innovative processes and their impact on SME performance in Australians. The study's findings revealed that the innovation strategy is an important driver in the

performance of SMEs, which are not reflected in the strategic and systematic application of creative innovation. According to research, companies' performance is likely to improve as they increase the degree to which they see the design culture and techniques are closely aligned throughout the design process.

2.1.7. Relationship between Product Innovation and Sales Performance

Sales performance is regarded as one of the most important aspects of organizational performance in the literature due to the establishment of an organizational learning environment and/or guidance in ongoing efforts to develop, revitalize, evaluate, and learn from failure and adaptability. a rapidly changing competitive environment For example, Han (1998) emphasized that new operations, which are the result of new technological and managerial approaches, have a positive impact on organizational growth and profitability. They also claim that the new operation is a non-existent link between organizational and strategic performance.

According to Damanpour and Evan (1984), organizations can address environmental challenges by successfully integrating technological or administrative changes into their organizational structure, which improves the quality of achieving their goals. As a result, innovations are frequently made to meet production and marketing objectives such as improving product quality, lowering production costs, increasing market share, developing new markets, and increasing compliance with production conditions.

New operations may have an immediate positive impact on manufacturing, market, and long-term financial performance; however, initiated investments and the use of internal resources may result in initial losses over time. According to Lawless and Anderson (1996), the adoption of new innovation entails the first penalty. Similarly, Damanpour (1984) stated that, in general, a critical period for the positive effects of innovation on sales performance may have passed. As a result, the effects of new performance are linked to non-financial aspects of the company's performance, such as increased customer satisfaction or production speed, which will lead to higher financial benefits later. In short, once the creative process has improved, the production and marketing performance will also improve, and with their intervention, financial performance will begin to improve.

New performance, particularly new product success, is linked to an increase in sales and the stock market because it has a significant impact on existing customer satisfaction and new customer benefit. It is also possible to argue that, in addition to the success of a new product, success in advertising,

process, and organization all contribute to increased customer satisfaction and draw more customer attention to the innovative company.

According to previous documents, production or performance factors such as speed, quality, flexibility, and cost-effectiveness appear to be closely related to strong performance in management, process, and product development. Continuous effort and high performance in innovative practices, for example, promote organizational learning and increase the speed and quality of performance, according to Koufteros and Marcoulides (2006). As a result, technological advances can be easily implemented, and any design or quality deficiencies are overcome faster than competitors.

Furthermore, López (2009) reported that the new process, in particular, had a positive impact on the overall efforts to manage the quality of the organizations. In addition to speed and quality, new performance is linked to two other aspects of product performance: flexibility and cost-effectiveness. Success in innovation efforts, particularly in management systems, manufacturing processes, and new products, can significantly contribute to the dissemination of information and communication efficiency within the organization, which is required for operational flexibility and cost reduction (Koufteros, 2006).

In this regard, Liu (2009) confirms the positive relationship between performance flexibility and the success of a new product in applied research. In terms of the effects of lowering production costs, Peters (2008) contends that while not all new systems result in cost savings, some do, allowing the organization to market products at competitive prices. As a result, we can argue that new performance indicators have a positive impact on production performance, which is a combination of performance indicators such as speed, quality, flexibility, and cost-effectiveness.

2.2. Empirical Review

Effect of Administration Innovation on Sales Performance

Walker's (2004) study found that new innovations have a positive impact on efficiency in both the public and private sectors. Although innovation is risky and its success is uncertain, evidence suggests that your acceptance improves performance. It validates the ideas promoted by emergencies and resource-dependent theories that organizations are adaptable systems that deliver change in order for the toy to function properly (Lawrence and Lorsch 1967; Pfeffer and Salancik 2003).

TQM has positive performance results, according to Boyne and Walker (2002)'s critical review, but the evidence has not been consistent. According to institutional theory, MI may have an indirect effect on performance because the factors driving early adoption focus on ensuring internal and external legitimacy (Staw and Epstein 2000). Despite the scarcity of large sample studies on the relationship between innovation and organizational performance, evidence from recent studies consistently points to positive outcomes for the adoption of new leadership (Hamel 2006).

According to Nauwankas (2013), respondents are aware of the strategies and challenges that the organization faces in achieving its goals. Furthermore, research has shown that major challenges to the development and implementation of innovative strategies include resistance from key stakeholders such as staff, customers, and suppliers, among others, high construction and implementation costs, and rapid technological changes that result in new ongoing activities. According to the study, the sources of long-term competitive advantage were created internally through high and advanced internal management skills.

High skills/staff skills, a high level of service, continuous learning about how to do things better, and effective leadership focused on continuous value-added banking development are among the resources identified as critical to generating sustainable competitive advantages. Excellent/valuable systems and services The study concluded that innovative innovation alone was insufficient to lead to competitive gains; however, the emphasis on innovation was either to lead to long-term competitive advantage or, in some cases, to competitive survival.

The development of new management tools can play an important role in organizational reform, facilitate organizational mobilization in the external environment, and increase the efficiency and effectiveness of internal processes. For example, the adoption of administrative renaming such as a limited rating card and TQM in government institutions seeks to maximize organizational performance, integrating the organization with natural demands on the quality of public services at low cost. Innovation management takes place in the organizational welfare system of the organization. It pertains to hiring authority, awards, and job planning or resource allocation (Dubouloz, 2012). Based on this explanation, the following hypothesis is proposed:

H1 – Administration Innovation has a positive and significant effect on sales performance

Effect of Technological Innovation on Sales Performance

In the US finance industry, Han (1998) empirically tested the relationship between market orientation, innovation, and firm performance. He discovered that a firm's administrative and technical innovativeness boosted its performance. Roberts (1999) used longitudinal research in the US pharmaceutical industry to investigate the effects of product innovation on firm sustainability. He discovered support for the expected relationship between a high proclivity for product innovation and long-term superior profitability.

Firms must respond to the environment effectively and efficiently in an uncertain environment. However, a good response is difficult to come up with until firms adopt technological innovation (Utterback, 1971). Technological assets shape a firm's internal processes, absorptive capacity, and practices, allowing it to more easily achieve its goals (economic and social). According to Anwar (2018), business model innovation includes both technological and non-technological innovation. Carayannis (2015) investigated business model innovation as a lever for organizational sustainability based on its technological attributes.

In a similar context, Chesbrough (2010) claimed that technological advancement has forced business organizations to change, thus business models must be integrated in a way to take into account the dynamics of industry and environments.

According to Nidumolu (2009), "sustainability is a mother lode of organizational and technological innovations that yield both bottom-line and top-line returns." Technological innovation not only helps businesses increase their profitability, but it also encourages them to facilitate and improve economic growth, as well as contribute to environmental and employment factors (Hall, 1998). Technological advancements and innovative practices are needed to respond the environmental pressures and gain sustainability. To summarize, Technological Innovation is a significant factor for organization sustainability. Therefore;

H2 - Technological innovation has a positive and significant effect on sales performance.

Effect of Strategic Innovation on Sales Performance

Han (1998) has conducted extensive research on the relationship between market structure, innovation, and high performance in the US financial industry. He discovered that the growth of the corporate management and technology firm had a positive effect on strong performance. Through

long-term research in the US pharmaceutical industry, Roberts (1999) investigated the effects of product development on firm profitability. It has discovered support for the anticipated relationship between the trend of high product launches and the continued high profit.

According to Aswani (2013), the introduction of new university strategies was largely due to universities continuing to engage in advertising and marketing activities. Furthermore, the study's findings revealed a strong positive relationship between strategic indicators and the performance of public universities. The findings also revealed that the combined strategic outcome accounted for the majority of the performance of public universities. The study concluded that there is a link between strategic design and university performance.

Simiyu (2013) investigated the impact of strategic planning on the commercial performance of Iranian commercial banks. The study discovered that commercial banks' new market strategies included the acquisition of resources and strength, the development of strong products, strong marketing campaigns against competitors, pricing by setting prices, analyzing the environment and responding to change, customer satisfaction, and retention. The study also discovered that commercial banks used product development strategies that enabled them to maximize profits, accelerate business growth, increase investment, and develop factory products. According to the study, banks' new strategic approach included philosophy (approach), vision, performance appraisal, shared commitment by everyone in the organization, and clear communication and communication channels. The researcher also concluded that complexity, cost, related profitability, image, and compliance were technical factors that influenced the adoption of new strategies in commercial banks.

The study recommended that in order for all commercial banks to be more profitable, increase the number of customers, for their business to grow continuously, and for them to invest more, they must embrace new strategies.

In this sense, developing strategies is about developing the entire company. Organizations must constantly innovate and think in order to manage their strategies. In terms of strategic analysis, the adoption of strategies (whether collaborative or competitive) is thus critical in managing innovations and enabling new innovations. Developers may use a collaborative strategy if the resources and resources required for innovation distribution are not available in the economics business, and vice versa. However, the innovative techniques used by developers during the renaming process may

change over time. Changes in inventors' innovative strategies as a result of market competition, in turn, help to sustain innovation.

From the revised studies, it is hard to doubt that strategic innovation is often the ability to create and revitalize a business and corporate mindset by changing both the company market and the ability and business system of the company and leading to improved organizational performance. Based on this review, the following hypothesis is proposed:

H3 – Strategic Innovation has a positive and significant effect on sales performance

2.3. Conceptual Framework

More recent studies, examined by Adela and Donika (2017), revealed that product innovation has positive and significant effects on firm performance. Thus, organizations need to strengthen their differentiation in terms of administrative, technological, and strategic innovation in order to achieve sustainable performance. The model is framed based on Adela and Donika's model which has been extensively employed by various organizations in other countries in order to diagnose product innovation. Based on the related literature reviewed, to investigate the effect of product innovation on employee performance, the following research framework has been adopted. The conceptual framework in figure -1 shows the relationship between product innovation (independent variable) and sales performance (dependent variable). It illustrates the dimensions of product innovation namely administrative, strategic and technological innovation have a direct relationship with sales performance.

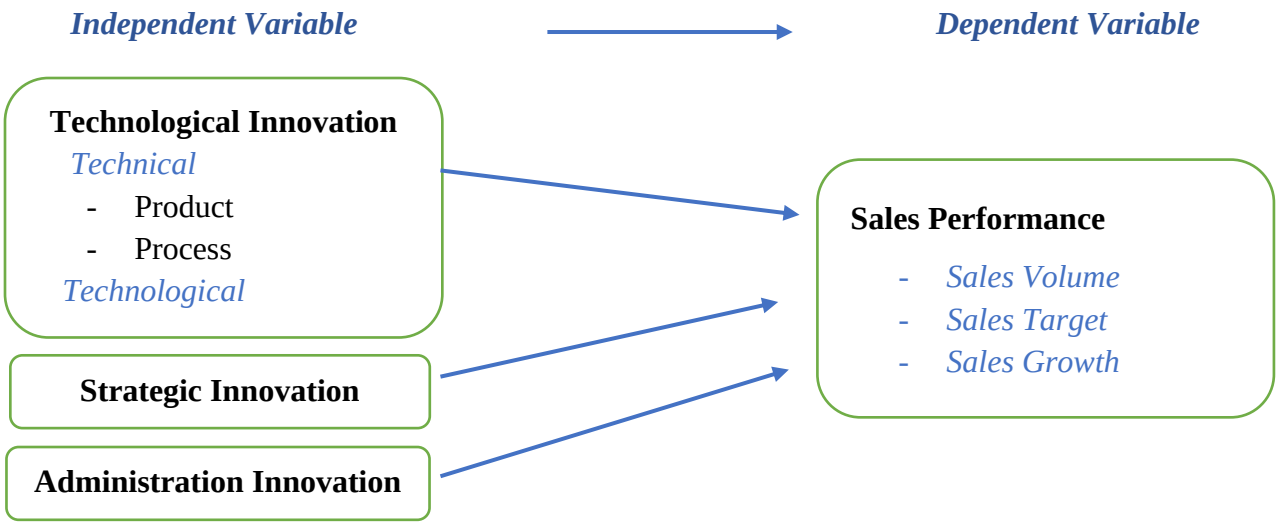

Figure 1: Conceptual Framework of the Study (Source: Adela and Dominika, 2017)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Research Approach

There are several ways to categorize research approach. Based on the nature of the research gap, the approach is divided in to three groups namely qualitative, quantitative and mixed research approach. For this study, a quantitative research approach was adopted the fact that it sought to point out the influence of product innovation on sales performance. In this regard, quantitative approach was found to be appropriate as it involved the generation of data in a quantitative form for analysis. The objective of quantitative research is to develop and employ mathematical models, theories and hypotheses that pertain the natural phenomena. Thus, the collected data were collected in quantified form to carry out the analysis to seek evidence about characteristics or a relationship between the stated (product innovation and sales performance) variables with the help of statistical models.

3.2. Research Design

There are three types of research design namely exploratory, descriptive and explanatory research. The goal of exploratory research is to discover ideas and insights while descriptive research is usually concerned with describing a population with respect to important variables. Explanatory research is used to establish cause-and-effect relationships between variables and causal analysis is concerned with the study of how one or more variables affect changes in another variable. It is thus a study of functional relationships existing between two or more variables (Kothari, 2004). This study applied an explanatory research design as it examines the variables of interest (product innovation and sales performance measurement) and determines the relationship between the constructs. Descriptive and inferential analysis were carried out to describe respondents' demographic characteristics and their perceptions towards the implementation of respective product innovation in terms of administrative, technological and strategic innovation; while the latter, inferential analysis, was used to analyze the relationship of independent variables (product innovation) with the level of the dependent variable (sales performances).

3.3. Population, Sample Size and Sampling Technique

3.3.1. Study Population

According to Ethiopian Investment Agency, EIA (2018), the industry constitutes a total of 559 registered real estate developers in the country of which the majority 505 (90.3%) are domestic but

the rest 54 (9.7%) are owned by foreign direct investors ventured jointly with some domestic developers. In terms of their geographical orientation, 413 (73.9%) registered domestic developers are located in Addis Ababa while the remaining are in different regional states (Addis Ababa City Council Land Development Authority (AACLDA), 2018). Among 413 (73.9%) registered domestic developers in Addis Ababa, 357 (86.4%) are under the implementation phase but the rest 56 (13.6%) are actively in operation. Among them, the top ten renowned real estate companies namely Noah, Ayat, Ovid, Bamacon, Rama, Flintstone, Sunshine, Sunrise, Ambassador and Gift real estates with credible reputations will be taken as a population in which the target respondents are selected (EIA, 2020). A total of 2,526 sales and marketing personnel are currently enrolled in the aforementioned ten companies were taken as the target population.

3.3.2. Sampling Size

Determining sample size is a very important issue because samples that are too large are uneconomical while too small samples may lead to inaccurate results. When the size of a population is known, the sample size is calculated based on Yemane's (1967) formula for proportionality of sample for the known population. Since the exact number of the population is known, the sample size determination formula is used to estimate the sample size. The formula is:

$$n = \frac{N}{1 + Ne^2} = \frac{2{,}526}{1 + (2{,}526 * 0.05^2)} = 345$$

Where: n = required sample size; N = Total Population; e = Tolerable error (0.05)

Table 1: Sample Proportion per Stratum

Industry	Company	No. of Customers	Proportion	Sample Proportion
Real Estate Companies	Noah	277	0.124	43
	Ayat	253	0.114	39
	Flintstone	245	0.110	38
	Sunshine	486	0.218	75
	Gift	233	0.105	36
	Ovid	188	0.084	29
	Sunrise	192	0.086	30
	Rama	219	0.098	34
	Bamacon	427	0.192	66
	Ambassador	186	0.084	29
Total		**2,526**	**1.00**	**345**

(Source: Ethiopian Revenue and Customs Authority, 2020)

3.3.3. Sampling Technique

In this study, the convenience sampling technique was adopted for the reason that it is hard to get the list of employees at each aforementioned real estate company. Human resource and other concerned managers might not be willing to disclose their staff's employment history for the case sensitivity. Although the probability sampling technique is preferable to select the respondents from the targeted sampling frame for generalizing the results of the findings (Saunders, 2004), it would be difficult or impractical to randomly select them unless their list is available. Therefore, the convenience sampling method was more effective for this research in order to contact each respondent until the calculated sample size were attained.

3.4. Source of Data

Data collection is the basis for acquiring data and can be collected in two ways which are; primary data and secondary data. Primary data consists of all the data collected throughout the study that can be directly related to the study purpose, both personally gathered as well as data from a third party that will be collected with equivalent purpose. Secondary data, on the other hand, contains relevant data that has been collected for a different purpose, but from which the conclusion is valuable for the purpose. For this study, only primary data were collected from sales and marketing personnel of the ten selected real estate companies, to be used for analysis.

3.5. Data Collection Instruments

The survey method that is used to obtain primary data is chosen due to its appropriateness and practicality in terms of being a well-accepted diagnostic tool for respondents' perception. As mentioned under the conceptual framework of this study, the research variables are product innovation practices (independent variable) and sales performance (dependent variable). Both variables were measured in different sales performance-related researches with a relatively wide variety of dimensions and industries as well. This study, however, framed the sales performance to measure it in terms of product innovation namely administration, technological and strategic innovation, the model was adopted from Adela and Dominika (2017). This model is preferred due to its reliability measures being found to be sufficiently above the threshold ($a > 0.70$).

The questionnaire was structured self-administered five-point Likert scale that was developed based on existing instruments used in previous studies (Adela and Dominika, 2017). The questionnaire was designed in such a way that it has two parts. The first part refers to personal demographic

characteristics to obtain general demographical information of sampled respondents. It contained five items regarding sex, age, education, department, position and salary. And the second comprises study variables such as product innovation and sales performance variables so as to measure the respondent's perception towards overall product innovation practices in the selected real estate companies.

Regarding the attributes of the study variables (administrative, technological and strategic innovation; and sales performance), the respondents were asked to describe on a 5-point Likert scale with 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Moderately Agree, and 5 = Strongly Agree. To reduce the possibility of key information bias, a set of questions in the survey contained some revert questions statements in both variables' attributes to ensure that the respondents are confident about answering the questions (Cannon and Perreault, 2009). The questionnaire was first written in English and then be translated into Amharic. In order to ensure linguistic consistency, then it was also translated back into English by an experienced translator, and the necessary corrections were taken in the Amharic version. The Amharic version was then distributed to the targeted respondents.

3.6. Data Collection Procedure

The research was conducted in person for the fulfillment of the academic requirement. A total of 30 questionnaires were distributed to the employees of Ropak real estate company to further pretest the validity and reliability of the scaling instrument. Ropak real estate company is selected for the fact that the company is almost similar in organizational size, structure, business modality, etc. Thus, taking the company for pilot test is appropriate. Then, once reconfirmed its validity and reliability, the questionnaire was distributed to the targeted respondents at selected real estate companies under study as per the convenience of the student researcher. Respondents are expected to fill the questionnaires accordingly after having their full consent and being briefed on its purpose. A sum of 302 responses were expected from their respective sales and marketing employees.

3.7. Data Analysis and Presentations

Both descriptive and inferential statistics was used to analyze the quantitative data gained through a structured questionnaire. Regarding the inferential statistics, multiple regression analysis was performed using the three product innovation dimensions as the independent variable and sales performance as the dependent variable. It comprised correlation tests, assumption tests and finally the regression results.

Correlation coefficients was also checked to quantitatively describe the strength of the association between the variables. According to Hair (2016), the Pearson correlation coefficient measures the degree of linear association between two variables. It varies between -1.00 to +1.00, with 0 representing absolutely no association between the two variables. While the assumption tests namely linearity, multicollinearity, normality, homoscedasticity and no autocorrelation were tested so as to check whether the data fit the multiple linear regression model. The model looks to the extent to which the product innovation was affect the overall sales performance (R^2 value), the regression coefficient (Beta coefficient), and the P-values for the significance of each relationship.

Multiple linear regressions were conducted to identify the relationship and to determine the most dominant variables that influence the sales performances of the real estate companies. To evaluate the relation between product innovation and Sales Performance, the multi-regression analysis model is depicted as:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where:

Y = Overall Sales Performances;

X_1 = Administration Innovation;

X_2 = Technological Innovation;

X_3 = Strategic Innovation;

e = error term;

β_0 = constant, term; $\beta_{1, 2, 3}$ = coefficient terms.

3.8. Scale Validity

A validity test reveals the degree to which a measuring instrument measures what it is intended to measure (Saunders, 2004). Validity is important to test and maintain the quality of measures in research. There are several types of validity testing. Construct validity is the appropriateness of inferences made based on observations or measurements, specifically whether a test measures the intended construct. Content validity is concerned with a test's ability to include or represent all of the content of a particular construct (Saunders, 2004). The content validity of the instrument for the study was ensured as the items of the questionnaire were from the literature and were reviewed by

professionals and academicians. In addition, pilot tests were conducted on 30 sales and marketing staff from Legacy real estate company in Addis Ababa. The purpose of the pre-testing was to refine the questionnaire and to assess the validity of measures in the Ethiopian context.

3.9. Reliability Test

To evaluate the research instruments, reliability is one of the major criteria. Reliability estimates the consistency of the measurement or simply, the degree to which an instrument measures the same way each time it is used under the same conditions with the same subjects (John, 2007). To test the reliability, Cronbach's Alpha coefficient is used. Alpha coefficient ranges in value from 0.0 to 1.0, that used to describe the reliability of factors extracted from multi-point formatted questionnaires or scales (that is, rating scale: 1= strongly disagreed, 5=strongly agreed). According to Nunnaly (1978), the alpha coefficient of 0.70 is the minimum acceptable threshold value. The higher the score, the more reliable the generated scale is.

Table 2: Reliability Test

	N	Cronbach's Alpha
Product-Technical Innovation	6	.703
Service-Technical Innovation	6	.858
Technological Innovation	5	.767
Strategic Innovation	6	.814
Administrative Innovation	5	.733
Sales Performance	5	.790
Total	**33**	**.801**

(Source: Own Survey, 2022)

As seen in Table -2, the reliability test measured by Cronbach's alpha was found to be .735, which is in the acceptable range (above a = .70). Thus, the scale can be taken as a reliable measurement of the study variables

3.10. Ethical Considerations

A brief description of the central objectives or purpose of the study was clearly stated in the introductory part of the questionnaire to be filled by respondents. To maintain the confidentiality of the information provided by the respondents, the respondents were assured that the responses would be used only for academic purposes and kept confidential. Finally, respondents were included in the study based on their voluntariness and free will.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

This survey aimed to investigate the relationship between product innovation and sales performance in the case of selected real estate companies in Addis Ababa. The primary data were collected through a self-administered questionnaire featuring the personal information of the respondents, five dimensions of product innovation, and sales performance of the real estate companies based on the perception of sales and marketing staff of the selected real estate companies in Addis Ababa. After distributing 345 questionnaires to the targeted branch managers, 332 questionnaires were collected which accounted for a 96.2% response rate. Then, screened the collected questionnaires for missing data and other inconsistencies and found 328 valid and usable responses for statistical analysis.

The responses are further screed for error correction and then encoded accordingly to make them suitable for data analysis. After carrying out all the required data preparation, the multiple regression model analysis has been carried out with the help of SPSS 21.0 to test a set of factors simultaneously. Finally, the proposed hypotheses were statistically tested. Based on the findings from the multiple linear regression analysis, the results are discussed for each specific objective as presented below.

4.1. General Information about the Respondents

Table -3 refers to the demographic profiles of the respondents. It constitutes gender, age, educational qualification, monthly salary, and tenure in their respective companies. According to the findings, male respondents took the highest percentage 193(58.8%) while their female counterparts shared the rest 135(41.2%). This merely indicates the sampling diversity of more male staff compared to their female counterparts but would be hard to reach conclusive remarks as to what this gender discrepancy means. Conceivably, further investigation with a specific emphasis on gender might examine this issue from a gender-related perspective.

Referring to age distribution of the respondents is concerned, the distribution showed that 137(41.8%) were found to be within the age range of 21 – 30 years, 110(33.5%) within 31 - 40 years, 52(15.9%) within 41 – 50 years, and the rest 29(8.8%) elderlies above 50 years old. This indicates that the respondents were from different age groups, adults up to elderlies, which could be taken as a positive implication as responses from diversified age groups would have the probability to get a clear picture of the product innovation influence on sale-related performance. However, it would be interesting to cross-check the finding with other variables and see if there's valuable insight to arrive at.

Table 3: Demographic Characteristics of Respondents

Category		Frequency	Percent
Gender	Male	135	41.2
	Female	193	58.8
	Total	**328**	**100**
Age	21-30	137	41.8
	31-40	110	33.5
	41-50	52	15.9
	>50	29	8.8
	Total	**328**	**100**
Education	High School	71	21.6
	First Degree	98	29.9
	Masters	125	38.1
	Ph.D.	28	8.5
	Others	6	1.8
	Total	**328**	**100**
Income	<5,000	80	24.4
	5,000-10,000	109	33.2
	10,001 - 15,000	52	15.9
	> 15,000	87	26.5
	Total	**328**	**100**
Experience	< 5 years	54	16.5
	5 - 9 years	97	29.6
	10 - 14 year	111	33.8
	15 years and above	66	20.1
	Total	**328**	**100**

Source: Own SPSS Output, 2022

Regarding the educational background of the respondents, 235(71.6%) has a first degree but the rest 78(29.9%) and 15(1.8%) have a master's degree and other qualifications respectively. However, none of the real estate companies' managers had either a high school certificate or a third-degree (Ph.D.). The results imply that higher educational qualification holders are eligible for sales and marketing positions. The trend shows that the real estate companies have started recruiting 2nd -degree holders even at the entry level and promoting more qualification holders to higher managerial positions. The student researcher believes that it's because of the large number of unemployed graduates, which

increases the chance of choosing the 1st and 2nd degree holders because they are less expensive in the labor market.

Similarly, for those who earned a monthly salary of Birr 5,000 and lower represents 80(24.4%), while 109(33.2%) earns from Birr 5,000 – 10,000, 52(15.9%) from Birr 10,001 – 15,000, and 87(26.5%) earns more than Birr 15,000. This indicates that the majority of the respondents were sales and marketing staff with relatively the middle income which implies the relatively varying compensation scales are exercised among real estate companies. This indicates that wages are low in Ethiopia in general and in real estate companies as well. The student researcher also sees that this is also for the reason that the real estate companies don't give much attention to monthly salary but rather prefer to provide commission-based and other fringe benefits.

Referring to their tenure, 111(33.8%) of the respondents have 10 – 14 years of experience in their current companies while 97(29.6%) from 5 - 9 years of experience and 66(20.1%) over 15 years and above. The rest 54(16.5%) represents salespersons with 5 years and lower experience. It implies that the study participants were from novice to experienced sales/marketing staff which could be taken as an advantage in the inclusion of different perspectives from different tenures. In this regard, the student researcher believes that this is due to the obscurity of future career paths within these companies, which leads the experienced staff to choose to work in other companies that have broad functional futurity.

4.2. Descriptive Statistics of Study Variables

The descriptive statistics of the study variables are presented to show the central tendency of respondents' perception and variation of their stand. As mentioned earlier, the variable is marketing intelligence (product modification, process modification, strategic competitors' analysis, competitor's business process, and marketing information review) and sales performance. According to Best (1987), the scale is set in such a way that respondents strongly disagreed if the mean scored value is in the range of 1.00 – 1.80; disagreed within 1.81 – 2.60; neither agreed nor disagreed within 2.81 - 3.40; agreed if it is in the range of 3.41 – 4.20; while strongly agreed when it falls within 4.21 – 5.00. Besides standard deviation below 1.0 shows relatively less variability of an observed response whereas, greater than 1.0 is often considered as high variability (Field, 2009). Below, summarized descriptive stat results of product innovation and sales performance variables are discussed below (Table -4).

Table 4: Summary of Study Variables

Variable	N	Mean	SD.
Product-Technical Innovation	328	3.75	1.205
Service-Technical Innovation	328	3.52	1.457
Technological Innovation	328	3.67	1.291
Strategic Innovation	328	3.64	1.278
Administrative Innovation	328	3.84	1.647
Sales Performance	328	3.53	1.050

Source: Own SPSS Output, 2022.

The grand mean scored value of (Mean = 3.75, SD = 1.205) of product's technical innovation shows that majority of the respondents agreed with but they have a varying stand in this regard. They showed their agreement with the companies' ability to produce houses/ buildings with novelty features, supply sufficiently and its technical competence. However, they had doubts about promptness of new design development which is first-in-market and makes life easier. This implies that the companies are technically competent in modify housing products but product uniqueness and prompt supply are still in question even if the respondents had different stands in this regard. (Ref. Appendix-III)

As far as process service's technical innovation, the grand mean 3.52 (with Std. 1.457) indicates that majority of the respondents slightly agreed on construction process's technical innovation. Changes technicality of working project process to eliminate non-value adding activities in delivery and production related processes were perceived positively. However, they had neutral stand regarding minimization of variable cost components in building project processes, techniques, machinery and software. This also implies that the real estate companies strived for improving smooth flow of their production and delivery processes with optimal costs. (Ref. Appendix-III)

Technological innovation of the real estate companies was also perceived positively as the scored grand mean value is found to be = 3.67 (Std. = 1.291). The respondents believed that real estate companies adopt latest technology for new projects (houses/ buildings) but reluctant to apply it to automate their office process. However, the managements are willing to invest on modern equipment to incorporate into their project processes like enhancing management information system, The overall technological innovation of the companies to facilitate their office and field processes were

acknowledged by the sales and marketing staff which can be taken as a good opportunity for the real estates so as to improve their delivery process. (Ref. Appendix-III)

Regarding strategic innovation, majority of the respondents also agreed with overall strategic innovation of the real estate companies as the grand mean score value shows 3.62 with varied perception (Std. 1.185) as exceeded over the threshold (std. 1.000). It is evidenced by their strong agreement with the company's continuously updating the promotion strategies, flexibility in pricing strategies, and maintain good relations compared to their strategic competitors. However, they had doubts on innovating new building/housing designs and working on employee's talent management. This illustrates that the companies were running their businesses strategically compared to take advantages over their competitors. (Ref. Appendix-III)

The administrative innovation aspect of the real estate companies was perceived slightly positive (weak) by the majority of the respondents (Grand Mean = 3.50, Std. 1.730). The managements revised their respective company's organizational structure to facilitate team work, and coordinates different functions (engineering, operations, admins, etc.) based on quality management system's feedbacks. Nonetheless, they still had doubts about the managements striving for evaluating their organization structure to facilitate the overall construction projects. It implies that the management of the real estate companies lack commitment in improving the overall operations but strive for changes merely in some specific areas. (Ref. Appendix-III).

Finally, the overall sales performance was also perceived slightly positively by the majority of the respondents as the scored grand mean value was found to be M = 3.50, SD = 1.031. The respondents slightly agreed with the companies became profitable even though the increment in sales volume, attaining annual sales target, and annual growth were not as expected. These imply that the real estate companies' sales performance is not as planned but the business remained profitable. It can be taken as a good opportunity to the real estates to work more on exploiting the market through innovation. (Ref. Appendix-III)

4.3. Inferential Analysis

Inferential statistics can help to provide explanations for a situation or phenomenon. It allows researchers to draw conclusions based on extrapolations and is thus fundamentally different from descriptive statistics, which simply summarize the data that has been measured. In this study, inferential statistics are adopted to examine the relationship between product innovation and sales performance. To do so, correlation tests, the assumption for regression model tests, and finally multi-regression analysis are performed in terms of model summary, ANOVA test, and beta coefficient determination to address the study's objectives.

4.3.1. Correlation Test

A correlation coefficient is a useful tool for summarizing the relationship between two variables with a single number ranging from -1.0 to 1.0. (Field, 2005). Pearson's correlation coefficient was calculated on the independent and dependent variables to determine the relationship between them. Field's (2005) recommendations relied on correlation to assess the strength of the relationship between variables. If the correlation coefficient falls between 0.1 and 1.0, the coefficient(r) is weak at 0.29; moderate at 0.3 to 0.49; and strong at >0.5 relationship between variables. In this study, Pearson correlation was used to examine the relationship between each of the independent variables and the dependent variable using a two-tailed test of statistical significance at the level of 95% confidence and significance <0.05.

Table 5: Relationships between Product Innovation and Sales Performance

Dimensions	PTMOD	BTMOD	TECIN	STRIN	ADMIN	SPER
Product Technical Innovation	1					
Process Technical Innovation	.397**	1				
Technological Innovation	.272**	.158**	1			
Strategic Innovation	.460**	.276**	.307**	1		
Administrative Innovation	.310**	.109*	.133*	.372**	1	
Sales Performance	.653**	.451**	.319**	.604**	.433**	1

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

*. Correlation is significant at the 0.05 level (2-tailed).

Source, Own Survey, 2022

The results of the correlation test in Table -5 revealed that product technical modification (r = .653) and strategic innovation (r = .604) had positive and strong significant relation with overall sales performance. But process technical innovation (r = .451), technological innovation (r = .319), and administrative innovation (r = .433) had positive and moderate significant relationship with sales performance. In summary, the relationship between product innovation and sales performance had significant and positive relations.

4.3.2. Assumptions of Regression Test

Multiple regression is an analysis that assesses whether one or more predictive variables explain the dependent (criterion) variable. The regression assumptions are linear relationship, multicollinearity, multivariate Normality, and Homoscedasticity.

Multicollinearity – Multicollinearity assumes that there are no highly related predictor variables. Having such a problem or violating an assumption may result in the linear regression model producing inconsistent results. Thus, before performing the linear regression (Ordinary Least Square Method), one should look for the problem of multicollinearity, which is characterized by a high correlation between some of the independent variables. The Variance Inflation Factor (VIF) is used in the study to calculate the effect of correlation among independent variables on the precision of regression estimates. The VIF should not be greater than 10. If the Tolerance (1/VIF) value is less than 0.1, it also indicates the possibility of multicollinearity, but if it is greater than 0.1, it indicates that the model is free of multicollinearity (Hair, 2004).

Table 6: Collinearity Assumption Test

	N	Mean	Std.	Tolerance	VIF
Product Technical Innovation	328	3.76	1.205	.761	1.313
Process Technical Innovation	328	3.52	1.457	.619	1.615
Technological Innovation	328	3.67	1.291	.877	1.140
Strategic Innovation	328	3.62	1.185	.688	1.453
Administrative Innovation	328	3.50	1.731	.616	1.622
Sales Performance	328	3.50	1.031	.761	1.313

(Source: Own Survey, 2021)

The collinearity statistics analysis of VIF values ranging from 1.140 to 1.622 and Tolerance values ranging from 0.616 to 0.877 in this study indicated that there was no collinearity problem. This could be interpreted as confirmation that the independent variables (marketing intelligence) are not strongly related to one another. That is, if the independent variables in this model were highly related to one another, they would have primarily measured or conveyed the same information.

Homoscedasticity - Before running multiple regression analysis, there should be homoscedasticity, which means that the residuals (the differences between the observed and predicted values of the dependent variable) are normally distributed and have constant variance (Burns & Burns 2008). If the assumption of homoscedasticity is violated (i.e., there is heteroscedasticity).

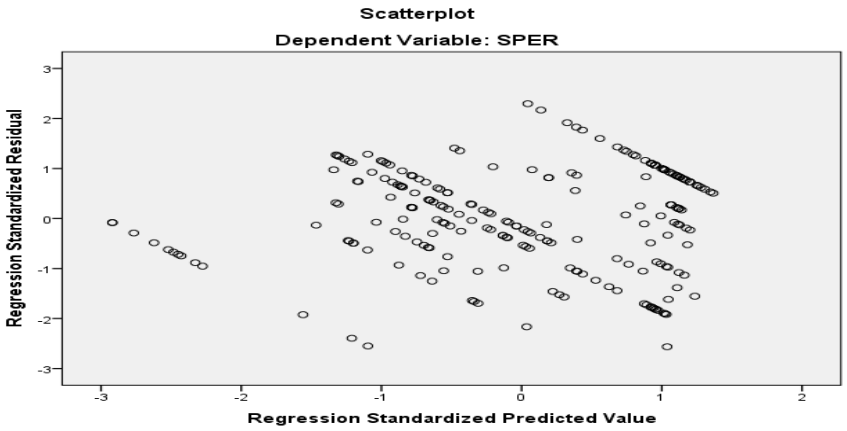

Figure 2: Scattered Plot for Homoscedasticity Test

The graph demonstrates the study's homoscedasticity. Using ZRESID versus ZPRED plots, the researcher attempted to determine whether the graph resembled a random array of dots evenly distributed around zero because Testing for Homoscedasticity is based on the assumption in regression analysis that the residuals at each level of the predictor variable(s) have similar variances. This means that the spread of residuals should be fairly constant at each point along with any predictor variable. Thus, as seen in Figure -2, the annexed dots are randomly distributed along the reference line. It can be concluded that the homoscedasticity assumption has been met.

Linearity Test - Linear regression needs the relationship between the independent and dependent variables to be linear. It is also important to check for outliers since linear regression is sensitive to outlier effects. The linearity assumption can best be tested with scatter plots. Figure -3 depicts the expected value for each of the five product innovation dimensions (the predictor variables) (straight

line). The plot in the same figure as the annexed plot shows how the points are distributed randomly and evenly across the plot. And, these patterns are indicative of a situation in which the linearity assumptions have been met in all five variables against sales performance.

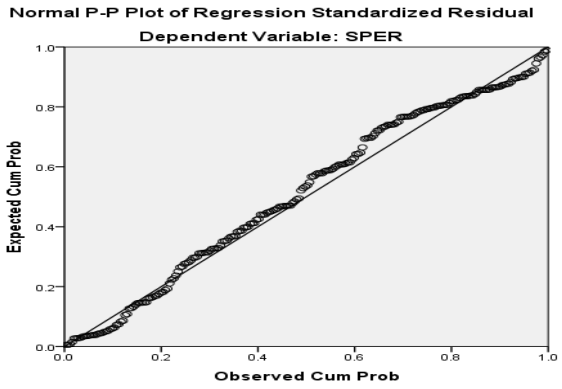

Figure 3: Scattered Plot for Linearity Test

Multivariate Normality - To ensure that the distribution of scores is normal, the values of Kurtosis and Skewness must be examined. Both of which have a standard error associated with them. Skewness and kurtosis should be zero in a normal distribution. Positive skewness values indicate a pile-up of scores on the left side of the distribution, whereas negative values indicate a flat distribution. The further the value is from zero, the more likely the data are not normally distributed. Both of which have a standard error associated with them. However, the actual values of skewness and kurtosis are not informative in and of themselves. It must instead take the value and convert it to a z-score. The z-score is simply a normalized score from a distribution with a mean of 0.0 and a standard deviation of 1.0.

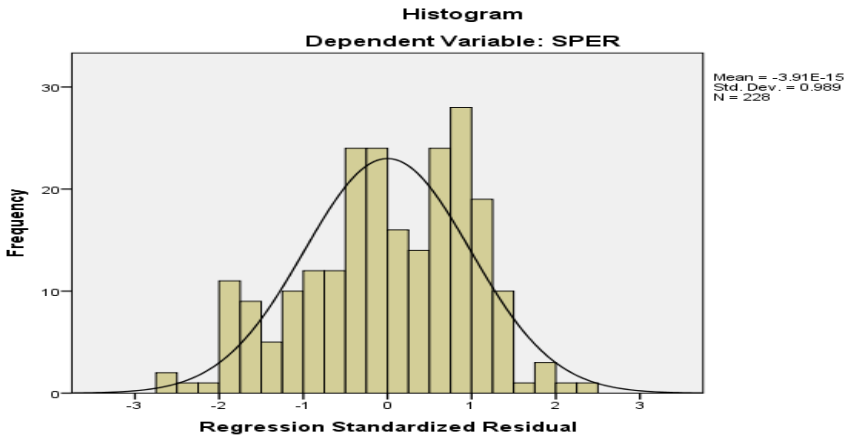

Figure 4:. Multivariate Normality Test

As illustrated in Figure -4, all product innovation's z-scores skewed to the right side but were found to be within an acceptable range (skewness within -2.0 to 2.0; and Kurtosis within -2.0 to 2.0). Therefore, it is pretty clear then that the numeracy scores are negatively skewed, indicating a pile-up of scores on the right of the distribution.

4.3.3. Regression Analysis

Multiple regression analysis in this study was used to model the value of sales performance based on its linear relationship to the five product innovation predictors (product technical innovation, process technical innovation, technological innovation, and administrative innovation). This means the overall sales performance is an aggregation of the product innovation dimensions. To indicate the impact that each predictor had on the constructed variable, the unstandardized coefficients are checked. The output of the multiple linear regression analysis includes a model summary, ANOVA test, and Beta Coefficient analysis.

Table 7: Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.777a	.605	.598	.65311

a. Predictors: (Constant), ADMIN, STRIN, TECIN, BTMOD, PTMOD

As indicated in the model summary of the analysis in Table -8 above, the value of R (.777) indicated the overall correlation of product innovation variables with sales performance. It indicates that the product innovation variables have a positive and strong relationship with the sales performance of selected real estate companies in Addis Ababa. While the goodness-of-fit of the model (R^2 = .605) illustrates the variation of product innovation is accounted for a 60.5% variation in sales performance. That means, the product innovation explains about 60.5% of the variation in sales performance of the real estate companies. But the rest 39.5% of the model would be explained by other extraneous variables which would have been included in this study.

Table 8: ANOVA Test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	209.931	5	41.986	98.433	.000[b]
	Residual	137.349	322	.427		
	Total	347.280	327			

a. Dependent Variable: SPER

b. Predictors: (Constant), ADMIN, STRIN, TECIN, BTMOD, PTMOD

Referring to Table -9, n the ANOVA test, the F-value of 98.433 is significant at $p < 0.05$. Therefore, it can be inferred that with 60.5% of the variance (R^2), product innovation dimensions are significant and the model appropriately measured the dependent variables – sales performance. In short, the regression model predicts overall sales performance and has been significantly explained by the five independent (product innovation) dimensions.

Table 9: Coefficients

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.327	.156		2.102	.036
	Product Technical Innovation	.313	.036	.365	8.563	.000
	Process Technical Innovation	.137	.027	.193	5.020	.000
	Technological Innovation	.060	.030	.075	2.015	.045
	Strategic Innovation	.255	.037	.293	6.945	.000
	Administrative Innovation	.107	.023	.179	4.679	.000

a. Dependent Variable: SPER

The beta coefficients of each product innovation dimension represent the last output in the analysis of the multiple regression models. Based on the results of the multiple linear regression analysis in Table -10, substituting the standardized coefficients in the model yields:

$$SPER = .327 + .317PTMOD + .137BTMOD + .060TECIN + .255STRIN + .107ADMIN$$

The results of the regression analysis revealed that each product innovation dimensions have a positive and significant effect on overall sales performance. Product technical innovation (B = .313, P<.05) has relatively the highest effect on sales performance followed by strategic innovation (B = .255, P<.05), and process technical innovation (B = .137, P<.05). Administrative innovation (B = .107, P<.05) and technological innovation (B = .060, P<.05) had a relatively lower contributions to the prediction model. This predicted change in the sales performance for every unit change in that specific predictor variable, i.e., keeping other factors constant, a unit change in product technical innovation, for instance, is accounted for a .313 unit change in sales performance. The results in Table -10. illustrated that all the five dimensions of product innovation had statistically significant influences on overall sales performance at a 95% confidence level ($p<0.05$), indicating that, for the

real estate companies in Addis Ababa, these factors are important in assessing or predicting their sales performance. Therefore, based on these findings, all the five proposed hypotheses are supported accordingly.

Table 10: Estimated Regression Coefficients

Code	Hypothesis	Beta, Sig.	Decision
H1	Product technical innovation has a significant effect on sales performance	B= .313, p= .000	Supported
H2	Process technical innovation has a significant effect on sales performance	B= .137, p= .008	Supported
H3	Technological innovation has a significant effect on sales performance	B= .060, p= .036	Supported
H4	Strategic innovation has a significant effect on sales performance	B= .255, p= .000	Supported
H5	Administrative innovation has a significant effect on sales performance	B= .107, p= .001	Supported

Source, Own Survey, 2022

CHAPTER FIVE

SUMMARY OF MAJOR FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

5.1. Summary of Major Findings

Based on the results of the analyses, the following major findings are summarized as follows:

Demography

- The demographic profiles of the respondents revealed that:
    - The majority of the respondents are male participants who took a share of 193(58.8%).
    - 137(41.8%) were in the age range of 21 – 30 years, while 110(33.5%) within 31 - 40 years.
    - 235(71.6%) has a first degree but the rest 78(29.9%) and 15(1.8%) have a master's degree and other qualifications respectively.
    - 80(24.4%) earned a monthly salary of Birr 5,000 and lower represents while 109(33.2%) earns from Birr 5,000 – 10,000
    - 111(33.8%) of the respondents have 10 – 14 years of experience in their current companies while 97(29.6%) from 5 - 9 years of experience
- All the five dimensions of product innovation had positive and significant relationship with sales performance. Specifically:
    - Product technical modification ($r = .653$) and strategic innovation ($r = .604$) had positive and strong significant relation with overall sales performance at $p < .05$.
    - But process technical innovation ($r = .451$), technological innovation ($r = .319$), and administrative innovation ($r = .433$) had positive and moderate significant relationship.
- The goodness-of-fit of the model ($R^2 = .605$, $p < .05$) illustrates the variation of product innovation is accounted for a 60.5% variation in sales performance.
- The multiple linear regression model results also illustrated that all the five dimensions namely product, process, technological, strategic and administrative innovation, had positive and statistically significant effect on sales performance. Specifically:

- Product technical innovation (B = .313, P<.05) has relatively the highest effect on sales performance. The real estate companies' technical competence in constructing houses/ buildings with novelty features and supplying sufficiently to the market perceived positively by the respondents. However, they had doubts about promptness of new design development, uniqueness and making life easier.
- Similarly, process technical innovation (B = .137, P<.05) had also positive and significant effect on sales performance as well. Changes technicality of project process to eliminate non-value adding activities in delivery and production related processes were perceived positively. But they had neutral stand regarding minimization of variable costs in building project processes, techniques, machinery and software.
- Following product technical innovation, strategic innovation (B = .255, P<.05) had also highest contribution to sales performance. The respondents believed that real estate companies adopt latest technology for new projects but reluctant to apply it to automate their office process.
- However, preceded by administrative innovation, technological innovation (B = .060, P<.05) had a relatively lower contributions to the prediction model. Flexibility in pricing strategies, and maintain good relations compared to their strategic competitors. But they had doubts on innovating new building/housing designs and working on employee's talent management.
- Finally, administrative innovation had relatively the least and weak contribution to the sales performance (B = .107, P<.05). The managements revised their respective company's organizational structure to facilitate team work, and coordinates different functions based on quality management system's feedbacks. Nonetheless, they still had doubts about the managements striving for evaluating their organization structure to facilitate the overall construction projects.

5.2. Conclusions

Business companies that offer products adapted to the needs and wants of target customers could take it as an opportunity to be in a better position to create a sustainable competitive advantage. Competitive advantage is increasingly derived from knowledge and technological skills and experience in the innovation or creation of new products. Within this context, special attention needs to be paid to the measurement of product innovation performance. Such practices are common in real estate industries but managements focus on traditional product marketing strategies in regards to improving their technical and perceived qualities rather. Product innovation alone cannot produce competitive advantage and sufficient or sustainable company growth. Hence, real estate companies in making building and housing product innovations should pay attention to market orientation because knowledge of market orientation is the key to successful product. Thus, this study aimed to investigate the effect of product and process technicality along with technological, strategic and administrative innovations on the sales performance of the companies.

The results of the findings illustrated that product innovation in terms of technical innovation of housing product, company's process efficiency, adoption of modern technologies, strategically approaching the market, and administrative support had positive and statistically significant contribution to the overall sales performance of the real estate companies. Specifically, improving or innovating new products that exceed the technical and perceived quality expectations enhances the demand which in turn improves the sales. Hence product technical innovation is one of the good predictors of the sales performance. Similarly, strategically addressing the needs and wants of the targeted customers along with understanding the competitive forces of the market also significantly affected the sales outcomes of the real estates. However, technological innovation regarding adoption of modern machineries, equipment, systems, etc. also play their significant role for the improvement of company's sales. However, the accessibility of modern equipment and machineries in the market might lower its effect in enhancing sales of real estate housings could be taken as justification.

On the other hand, innovating internal processes as well as structuring the organization innovatively to assure administrative support to the overall project activities were expected to have strong positive significant effect on sales performance. However, in this case, their contribution to sales performance of the real estate companies were found to be the least. This might happen due to lac of sales and marketing staff's knowledge or awareness to what extent the management are exerting their

maximum efforts for the improvement of the overall organizational performance for creating a conducive production and marketing environment. Having better information of the administrative support of the companies, sales and marketing staffs need to engage or be motivated in both tactical and strategic decision-making processes.

Based on the major findings, it can be concluded that product innovation is one of the marketing strategies to enhance the sales performance of the real estate companies. Investing on product technical innovation of product and internal processes based on the market demand would provide a competitive advantage in supported with technological and administrative innovation.

5.3. Recommendations

Based on the major findings of the analyses and the conclusions, the following possible suggestions are forwarded for the improvement of sales performance of the real estate companies through product innovation. The recommendations are:

- Product technical innovation has relatively the highest effect on sales performance but lac of promptness in regards to new design development, uniqueness and constructing buildings that make life easier are still in questions. Management of the real estate companies are advised to give more attention on the architect and technical quality of real estate products during designing phase.
- Similarly, process technical innovation had also positive and significant effect on sales performance as well. Changes technicality of project process to eliminate non-value adding activities in delivery and production related processes were perceived positively. The project managers shall minimize wastage and unnecessary labour costs by implementing project management software like Microsoft Project Management Software.
- Following product technical innovation, strategic innovation had also highest contribution to sales performance. Understanding the market and the strategy of the competitive forces would have more influence on sales performance. This can be achieved by developing employee's talent in effective marketing intelligence. The HR manager are advised to create marketing intelligence department under research and development function.
- The real estate companies adopted latest technology for new projects but reluctant to apply it to automate their office process as well.

- Administrative innovation had the least contribution to sales performance. The managements revised their respective company's organizational structure to facilitate team work, and coordinates different functions based on quality management system's feedbacks. They are advised to strive for evaluating their organization structure to facilitate the overall construction projects.
- This study focused only certain aspects of innovation to investigate their effect on sales performance. Including other determinant facts like pricing, promotion and delivery quality would give the overall picture regarding the factors affecting sales performance of an organization.

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Appendices

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

Survey Questionnaire

Questionnaire to be filled by Employees of Real Estate Company

Dear Participant,

My name is Abeba Zemedie, a postgraduate student of Addis Ababa University, College of business and economics. I am conducting my research entitled "The effect of product innovation on sales performance: the case of selected real estate companies in Addis Ababa. The purpose of this questionnaire is to gather information about employees' perception regarding product innovation in terms of strategic, technological and administrative innovations; and their effects on sales performance of the companies. Your honest and sincere responses to this questionnaire will play a great role in making the research successful. I assure you that all the responses will be treated confidentially and only be used for academic purposes. Participation is purely voluntary and no need to write your name.

I thank you in advance for offering your golden time and if you have any questions, please feel free to contact me by the below contact:

Abeba Zemedie

Phone: +251 913 412 824

Email: esedaralex@gmail.com

Part I. General Information

1. Gender ☐ Female ☐ Male

2. Age ☐ 21 - 30 years ☐ 31 - 40 years ☐ 41 – 50 years ☐ > 60

3. Education ☐ First Degree ☐ Masters & Above ☐ Other, please specify_____

4. Income ☐ < Birr 15,000 ☐ 15,000 – 30,000 ☐ 30,001 – 45,000 ☐ > Birr 45,000

7. Experience ☐ ≤ 5 years ☐ 6 – 10 years ☐ 11 -15 years ☐ >15 years

Part II. Questions related to Product Innovation and Sales Performance

Please read each statement carefully and show your level of agreement on the statements by putting "X" mark in the boxes using the following 5-scale Likert scales: Strongly agreed (SA)=5, Agreed (A)=4, Neutral (N)=3, Disagreed (DA)=2, and Strongly disagreed (SDA)=1

1. Product Innovation	**Likert Scale**				
1.1 Technological Innovation	**1**	**2**	**3**	**4**	**5**
Technical - Product					
The company able to produce houses/ buildings with novelty features					
I believe that the speed of new (houses/ buildings) design development is fast enough/competitive					
Often the company has enough new houses/ buildings introduced to the market					
I believe that our company is technically competitive					
I believe that the company has new products (houses/ buildings) which are first-in-market					
I believe that the company has new products (houses/ buildings) which makes life easier					
Technical - Process					
The process techniques change rapidly in our company					
Determining and eliminating non value adding activities in delivery related processes					

Decreasing variable cost and/or increasing delivery speed in delivery related logistics processes.					
Increasing output quality in manufacturing processes, techniques, machinery and software.					
Decreasing variable cost components in building project processes, techniques, machinery and software.					
Determining and eliminating non value adding activities in production processes					
Technological Innovation					
The company uses latest technology for new projects (houses/ buildings)					
The company utilizes up-to-date/new technology for office process automation					
The company renews its management information system & information sharing practice.					
I believe that managements are fast in adopting process with the latest technological innovations					
The company invests more on modern equipment to improve its project performance					
1.2 Strategic Innovation	**1**	**2**	**3**	**4**	**5**
I believe that the company renews the previous product promotion techniques for promoting current and/or new products than competitors					
The company continuously revises the product pricing techniques employed for the pricing of the current and/or new housing/buildings than competitors.					
Compared to competitors, the company revises designs of the current and/or new housing/buildings through changes (appearance, shape or size) without changing their basic technical and functional features.					
The company revises its employee's talent management to take advantages over competitors					
I believe the company strives for facilitating strategic partnerships with supply chains for long-term business collaborations.					
The company maintains good relationship with buyers than competitors.					
1.3 Administrative Innovation	**1**	**2**	**3**	**4**	**5**
The company revises the organization structure to facilitate teamwork.					
The company renews the construction projects based on quality management feedback.					
The managements often revise the organization structure to facilitate coordination between different functions such as operation (construction), engineering, administration, etc.					

The project managers modify/ revise the routines, procedures or processes employed to execute firm activities in innovative manner.					
I believe that the managements strive to evaluate the organization structure to facilitate the overall construction projects.					
2. Sales Performance	**1**	**2**	**3**	**4**	**5**
I believe that the sales volume of the company improves through time					
I believe that the company has become profitable					
I believe that the sales shows growth every year					
I believe that the company often attain its annual sales target					
I can tell that I am satisfied working with the company it performs better than the competitors					

Many Thanks for Your Valued Time!!!

Appendix – II

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	135	41.2	41.2	41.2
	Male	193	58.8	58.8	100.0
	Total	328	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21- 30 years	137	41.8	41.8	41.8
	31 - 40 years	110	33.5	33.5	75.3
	41 – 50	52	15.9	15.9	91.2
	Above 50	29	8.8	8.8	100.0
	Total	328	100.0	100.0	

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school	0	0.0	0.0	0.0
	Degree	235	71.6	71.6	71.6
	Masters	78	29.9	23.8	94.4
	Ph.D.	0	0.0	0.0	94.4
	Other, Please Specify_____	15	1.8	1.8	100.0
	Total	328	100.0	100.0	

Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< 5,000	80	24.4	24.4	24.4
	5,000 – 10,000	109	33.2	33.2	57.6
	10,001 - 15,000	52	15.9	15.9	73.5
	>15,000	87	26.5	26.5	100.0
	Total	328	100.0	100.0	

Current position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Manager	113	34.5	34.5	34.5
	Supervisor	89	27.1	27.1	61.6
	Customer Service	68	20.7	20.7	82.3
	Other position, please specify_____	58	17.7	17.7	100.0
	Total	328	100.0	100.0	

Service year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 5 years	54	16.5	16.5	16.5
	5 – 9 years	97	29.6	29.6	46.0
	10 - 14 years	111	33.8	33.8	79.9
	15 years and above	66	20.1	20.1	100.0
	Total	328	100.0	100.0	

PMOD – Product's Technical Innovation

Descriptive Statistics

	N	Mean	Std. Dev.
The company able to produce houses/ buildings with novelty features	328	4.22	1.456
I believe that the speed of new (houses/ buildings) design development is fast enough/competitive	328	3.42	1.740
Often the company has enough new houses/ buildings introduced to the market	328	4.21	1.568
I believe that our company is technically competitive	328	3.92	1.730
I believe that the company has new products (houses/ buildings) which are first-in-market	328	3.44	1.732
I believe that the company has new products (houses/ buildings) which makes life easier	328	3.43	1.742
PMOD	328	3.7571	1.20465
Valid N (listwise)	328		

BMOD – Process's Technical Innovation

Descriptive Statistics

	N	Mean	Std. Dev.
The process techniques change rapidly in our company	328	3.93	1.715
Determining and eliminating non value adding activities in delivery related processes	328	4.00	1.687
Decreasing variable cost and/or increasing delivery speed in delivery related logistics processes.	328	3.51	1.819
Increasing output quality in manufacturing processes, techniques, machinery and software.	328	3.43	1.839
Decreasing variable cost components in building project processes, techniques, machinery and software.	328	2.65	1.818
Determining and eliminating non value adding activities in production processes	328	3.58	1.785
BMOD	328	3.52	1.457
Valid N (listwise)	328		

CSTR – Technological Innovation

Descriptive Statistics

	N	Mean	Std. Dev.
The company uses latest technology for new projects (houses/ buildings)	328	3.91	1.690
The company utilizes up-to-date/new technology for office process automation	328	3.41	1.760
The company renews its management information system & information sharing practice.	328	3.68	1.803
I believe that managements are fast in adopting process with the latest technological innovations	328	3.65	1.734
The company invests more on modern equipment to improve its project performance	328	3.68	1.632
CSTR	328	3.67	1.291
Valid N (listwise)	328		

CPRS – Strategic Innovation

Descriptive Statistics

	N	Mean	Std. Dev
I believe that the company renews the previous product promotion techniques for promoting current and/or new products than competitors	328	4.46	1.292
The company continuously revises the product pricing techniques employed for the pricing of the current and/or new housing/buildings than competitors.	328	4.30	1.471
Compared to competitors, the company revises designs of the current and/or new housing/buildings through changes (appearance, shape or size) without changing their basic technical and functional features.	328	2.70	1.610
The company revises its employee's talent management to take advantages over competitors	328	2.66	1.795
I believe the company strives for facilitating strategic partnerships with supply chains for long-term business collaborations.	328	3.85	1.756
The company maintains good relationship with buyers than competitors.	328	3.77	1.745
CPRS	328	3.62	1.185
Valid N (listwise)	328		

MREV – Administrative Innovation

Descriptive Statistics

	N	Mean	Std. Dev.
The company revises the organization structure to facilitate teamwork.	328	3.54	1.899
The company renews the construction projects based on quality management feedback.	328	3.56	1.899
The managements often revise the organization structure to facilitate coordination between different functions such as operation (construction), engineering, administration, etc.	328	3.58	1.909
The project managers modify/ revise the routines, procedures or processes employed to execute firm activities in innovative manner.	328	3.47	1.930
I believe that the managements strive to evaluate the organization structure to facilitate the overall construction projects.	328	3.34	1.584
MREV	328	3.5000	1.73046
Valid N (listwise)	328		

SPER – Sale Performance

Descriptive Statistics

	N	Mean	Std. Dev.
I believe that the sales volume of the company improves through time	328	3.41	1.483
I believe that the company has become profitable	328	3.67	1.496
I believe that the sales shows growth every year	328	3.45	1.063
I believe that the company often attain its annual sales target	328	3.49	1.086
I can tell that I am satisfied working with the company it performs better than the competitors	328	3.46	1.072
SPER	328	3.50	1.031
Valid N (listwise)	328		

Descriptive Statistics

	N	Mean	Std. Deviation
Product Technical Innovation	328	3.76	1.205
Process Technical Innovation	328	3.52	1.457
Technological Innovation	328	3.67	1.291
Strategic Innovation	328	3.62	1.185
Administrative Innovation	328	3.50	1.731
Sales Performance	328	3.50	1.031
Valid N (listwise)	328		