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The Influence of Innovation Strategies on the Performance of Private Insurance Firms in Ethiopia

**A Thesis Submitted to College of Business and Economics,
Department of Management of Addis Ababa University in Partial
Fulfilment of the Requirements for the Masters of Business
Administration (MBA) in Management**

By

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This is to certify that the thesis prepared by Afomiya Tsegaye Gediff, entitled: *The Influence of Innovation Strategies on the Performance of Private Insurance Firms in Ethiopia* and submitted in partial fulfilment of the requirements for the award of the degree of Master of Business Administration (MBA) in Management, with the regulation of the university and the accepted standards with respect to originality and quality.

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Declaration

I, Afomiya Tsegaye Gedif announce this research paper entitled “*The Influence of Innovation Strategies on the Performance of Private Insurance Firms in Ethiopia*” is my own and I have the courage to say, it is original research work that has not been produced by others in any other institutions or universities for any other requirements in any form. To this end, I acknowledge all sources of information that I used to produce the study appropriately and I would say perfectly.

Afomiya Tsegaye Gedif

Letter of Certification

This is to certify that Afomiya Tsegaye has carried out her thesis work on the topic entitled “*The Influence of Innovation Strategies on the Performance of Private Insurance Firms in Ethiopia*” under my guidance and supervision. Accordingly, I here assure that her work is appropriate to be submitted for the award of Master of Business Administration (MBA) in Management.

Workneh Kassa (PhD)

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Abbreviations

ANOVA	–	Analysis of Variance
FP	–	Firm Performance
MIS	–	Marketing Innovation Strategy
PCIS	–	Process Innovation Strategy
PDIS	–	Product Innovation Strategy
TIS	–	Technological Innovation Strategy

Abstract

It is currently thought that in this competitive era, innovation is part of the strategy implementation that enhances firm performance through enhancing esteem expansion and hazard decrease. And assessing current innovation strategies, and understanding the influence of Innovation strategy towards the firm performance is important. The purpose of this study was to investigate the influence of Innovation Strategies on the performance of private insurance firms in Ethiopia. The study was used quantitative research method and employs survey design to achieve the research objectives. For achieving the study objective, 165 sample branches of private insurance companies of Ethiopia were selected through simple random sampling technique. Accordingly, to collect data from sample branch managers the researcher was used self-administered closed-ended questionnaire. Out of 165 managers, workable data were obtained from 158 of them. Those data, then, were analyzed through descriptive statistics and inferential analysis. The research was to identify the influence of the implementation of overall innovation strategy and the four components of innovation strategies (Process Innovation strategy, Technological Innovation strategy, Product Innovation Strategy and Marketing Innovation Strategy) on insurance firm performance. The finding of descriptive statistics revealed that the mean score for overall innovation strategy is at the highest point in the average in the companies. From the four components of innovations strategy, Marketing Innovation Strategy, Product Innovation Strategy and Technological Innovation strategy were felled at the highest point of in the midpoint, whereas, Process Innovation strategy was the item that felled the lowest point of the average in the companies. And also the current level of insurance Firm performance was at the high level in the average in the companies. The correlation analysis result showed that there is a significant positive influence of the implementation of overall innovation strategy on the insurance firm performance in the companies. Moreover, the inferential analysis evidenced that the implementation of overall innovation strategy is predictor of insurance firm performance in the companies. It is also found that only marketing innovation strategy has a significant positive influence on insurance firm performance; whereas, all other components of innovation strategies have no significant influence on insurance firm performance in the companies. On the basis of the research findings, appropriate conclusions and recommendations along with implications for further studies were forwarded.

Keywords:-Innovation, Innovation Strategy, Firm Performance, Insurance Company

Chapter One

1. Introduction

This chapter introduces and provides brief background information about the topic under consideration and the background of the organizations under this study. It also presents the statement of the problem; the research questions and hypotheses; objectives of the study; significances of the study; delimitations and limitations of the study, definition of key terms and organization of the study.

1.1. Background of the Study

Innovation is part of the strategy implementation that enhances firm performance through enhancing esteem expansion and hazard decrease (Drucker, 2001). Advancement systems are important in improved execution among many organizations and are reflected by expanded productivity and part of the overall industry growth. Subsequently, as Tavassoli and Karlsson (2015) stated firms that craving to stay focused by upgrading their development limits and benefiting from the accessible open doors and also enhance their performance can achieve all these by embracing innovations in its operation. Understanding the relation between innovation strategies and performance in both large and small firms is relevant for many scholars, decision-makers and executives of big and micro enterprises (Kemp, et al., 2003).

For a firm to increase profitability it has to implement strategies that put itself in market domination and improve the organization performance. An innovation strategy has been recognized as a basic equipment to tackle the competitive demands in the insurance market environment and also as a tool of improving the financial performance of these firms (Kettunen, 2006). The insurance sector plays an important role in the country's socio economic development. As a matter of fact in Ethiopia, all other industries depend on this sector and any form of destabilization in the sector will affect almost all other sectors in the economy. Thus, innovations create a vital element of the company strategies for many reasons like application of viable manufacturing processes, to do better in the market, to seek positive image in awareness of customers and hence increase reasonable competitive advantage (Gunday, et al., 2011).

Moreover, as Gunday, et al. (2011) stated for any innovation to be considered successful it must have a positive impact on the performance of a firm. Thus innovative performance is the combination of overall organizational achievements due to rejuvenation and efforts improvement done in consideration of many features of firm innovativeness, i.e. processes, products, technology, and marketing. Therefore, the influence of innovation strategy on the performance is a composite construct basing on many indicators of performance, for instance, to the new rights, new product publications, new plans, new processes, and new arrangements of the organization (Gunday, et al., 2011).

1.2. Background of Insurance Firm in Ethiopia

Insurance in its modern form was first started in Ethiopia as far back as 1905 when the bank of Abyssinia which was owned by the bank of Egypt began to transact insurance as an agent of a foreign insurance company began to underwrite fire and marine insurance policy. In 1923, the Swiss insurer Balois set up a branch office in Addis Ababa and soon followed by other foreign companies working on an agency basis. During the Italian occupation from 1936 to 1941 only Italian insurance companies operated in the country. When Italians left, insurance companies from other European countries are restarted to operate insurance activities in Ethiopia (Axco, 2017).

Belay (2001) defined that as per the survey conducted in 1954 by the Ministry of Commerce and Industry, insurance activities were being taking out by 18 foreign insurance companies' branches or agents and one domestic insurance company called Imperial Insurance established in 1951. The insurance market was governed like any commercial goods and a service by Civil Code 1960 from the year 1950s up to 1960s insurance companies has increased to 33. The numbers of local companies were established reaching a total of 13 in number. Belay (2001) further states that due to mismanagement of the insurance companies, for the second time other study was conducted by the Addis Ababa Chamber of Commerce in 1967. The study found that there were 30 foreign insurance branches and agents and 10 domestic insurance companies in Ethiopia. Still it was administered by the provision of Ethiopian commercial code, 1960 except the marine insurance by marine code of Ethiopia. In 1970 promulgation of proclamation no 281/1970 was issued to control and regulate the insurance business in Ethiopia. It was unusual in that it created

an Insurance Council and an Insurance Controller's office to safeguard the reliability of the sector.

Pursuant to the proclamation of 1970, regulation number 383/1971 was issued by the Ministry of Commerce, Trade and Tourism on matters which help to build conducive insurance market. The controller of insurance license for 15 domestic insurance companies, 36 agents, 7 brokers, 3 actuaries and 11 assessors has been licensed in accordance with the provision of the proclamation immediately in the year after the issuance of the law (Hailu, 2007). In 1975 all insurers were nationalized by the communist government and the Ethiopian Insurance corporation (EIC) was formed and the communist government was overthrown in 1991. In 1994 new monetary and banking proclamation no 83/1994 was issued to supervise banks and insurance but allowed for local insurers only.

In Ethiopia there are 17 insurance companies, 9 of them are composite insurance means managing both general insurance and long term insurance. Out of the 17 insurance companies one is state owned and 16 is private owned insurance companies, while eight of them are transacting general insurance business. The total assets reached 11.3 billion, total capital reached 2.97 billion and gross premium 6.99 billion. The number of branch offices has reached 424 showing a 13% growth over last year same period. Moreover, over 1,950 insurance sales agents, 53 insurance brokers, 97 loss assessors and two surveyors are operating in the market. There are two reinsurance companies in Ethiopia these are Africa-Re and Ethio-Re. Moreover, we are also micro insurance companies established to deliver to the low level income societies. Micro insurance service is allowed to provide by insurance companies and by micro finance banks (NBE, 2016).

1.3. Statement of the Problem

Huynh and Lin (2013) indicated that in today's business environment, business organizations are facing a aggressive competition in domestic and global markets and a primary factor producing this is lack of innovative strategies. To survive and develop, they must implement innovative strategies in order to raise their competitiveness and get more advantages which will lead to increasing performance but they don't have this leading to their business failure. Some of the change agents that pushed financial institutions to be more creative include an intense competition, regulation, and technological advancement (Huynh and Lin, 2013).

As Walker, (2004) stated the expanding level and pace of advancement and rivalry, has made it that market pioneer need to make an upper hand that empowers them to drive and hold better execution inside the business than survive. Advancement techniques have been exactly connected with predominant execution through upgrading worldwide intensity, general efficiency and esteem boost of the firm. Karanja (2011) set up in his study that organizations with solid innovation empowered advancement methodologies will probably secure upper hand and make predominant shareholder esteem. A decent innovation allowed advancement system ought to basically analyse the reasons why an organization is effective (Karanja, 2011).

The development of the economy creates new opportunities for the insurance sector in Ethiopia. This factor together with others such as changes in the customer awareness, test and preferences are pushing safety net providers to relook at their plans of action regarding advancement and as well as their reach (EIC, 2017). In the industry, firms have made little or no effort on innovation in products, methods of service delivery and distribution channels which has made customers to take advantage. As a result, underwriting performance has decreased due to mismatch between product prices and underwriting costs which has caused poor performance among firms in the insurance industry (EIC, 2017).

Different studies have been done on the performance of insurance companies in Ethiopia. As Kahase (2018) assessed the economic growth in Ethiopia has a positive impact on the development of insurance companies and their performance in Ethiopia. And as Hailu (2007) summed up “the insurance sector during the command economic system lack of dynamism and innovation, volatile premium growth rates and reliance on a couple of classes of insurance business for much of gross premium income. The nationalization of private insurance companies, the restrictions imposed on private business ventures, and management of the insurance sector had significant adverse impact on the development and growth of Ethiopian insurance industry”. Kanbiro and Ayneshet, (2019) find in their study factors affecting performance of insurance companies operating in Ethiopia, supports to formulate constructive policy to enhance financial performance goal of the insurance firms in one hand and to promote the economic development of the country in other hand.

Innovation strategies can be proven by the number of new products released in the market every time, improvement of existing products, improved marketing strategies and also improved

technological system implemented. The motive behind these numerous innovation activities is to improve firm performance in various aspects like increase of profits, increase market share, and reduce production cost (Pinoy, 2015). Despite the numerous benefits of innovation; the researcher has not come across studies that have been conducted on the innovative strategies on the performance of insurance industry, which is a very important area of study in Ethiopia. Therefore, this research attempts to fill the gap by empirically investigate the influence of innovative strategies on the performance of private insurance companies of Ethiopia.

1.4. Research Questions

The following are the research questions of this study:

- ❖ Does process innovation strategy influence the performance of private insurance firm in Ethiopia?
- ❖ Does technological innovation strategy influence the performance of private insurance firm in Ethiopia?
- ❖ Does product innovation strategy influence the performance of private insurance firm in Ethiopia?
- ❖ Does marketing innovation strategy influence the performance of private insurance firm in Ethiopia?

1.5. Objective of the Study

The study had the following general and specific objectives.

1.5.1. General Objective

The general objective of the study was to investigate the influence of innovation strategies on the performance of private insurance firms in Ethiopia.

1.5.2. Specific Objectives

In line with the above general objective, this study had the following specific objectives.

- Identifying the influence of process innovation strategy on the performance of private insurance firm in Ethiopia.

- Investigating the influence of technological innovation strategy on the performance of private insurance firm in Ethiopia.
- Finding out the influence of product innovation strategy on the performance of private insurance firm in Ethiopia.
- Assessing the influence of marketing innovation strategy on the performance of private insurance firm in Ethiopia.
- Analysing innovation strategy with profitability and growth perspective of private insurance firms.

1.6. Significance of the Study

The purpose of this study was assessing innovation strategies and firm performance; and to determine the influence of innovation strategies on the performance of private insurance firm in Ethiopia. Depending on this purpose, the researcher believes that this study will contribute to both the organization and the group of people in managerial profession in three ways, that is, theoretical, methodological and practical contribution. Regarding theoretical contribution, this study contributes to the knowledge that exists on the concepts of this study: The influence of innovation strategies on the performance of insurance firm.

The practical contribution of the study was in usefulness for the organization as it informs management to ensure that innovation is seen as an important strategic objective of the business. It must also be in line with the business strategies and programs for the organization. The study also helps the companies to know how to innovate their jobs effectively by strategically identifying their strengths and weaknesses and taking corrective measures to develop their performance. The companies were also supported in identifying the effective measures of innovation strategy so as to develop the company to become a competitor in this business world.

This study also provides knowledge regarding the influence of innovation strategy on the performance of insurance firm which is able to address the problems in the development or growth of insurance firm with regards to survival and become competent in the business. The study was therefore assist in focusing research attention to the key issues which determine the best performance of insurance company. The study also initiates other interested researchers to explore the area further. Students and academicians who wish to carry out further research in

innovation strategy and firm performance were found the study helpful since it opens up other research gaps.

1.7. Delimitations of the Study

This study was delimited to eight private insurance companies of Ethiopia. Issac and Michael (2005) defined delimitation as “arbitrarily narrowing the scope of the study” and “focusing only on selected aspects of the problem, certain areas of interest, a limited range of subjects and level of sophistication involved” (p.38). The study was also delimited to the assessment of the influence of innovation strategy on the performance of private insurance firm; and the data for the study was gathered during the 2019/20 budget year and the respondents in the sample were expected in varying degree of knowledge and career experience. Hence, the researcher believes that the study which was carried out in these eight private insurance companies of Ethiopia was also helps to give insight to the other insurance companies of Ethiopia. The study specifically dealt with the effects of process, technological, product and marketing innovation strategies on the performance of private insurance firm.

1.8. Limitations of the Study

The study was limited to eight private insurance companies which may be a relatively small number since there are many more other private insurance companies in Ethiopia. The study may face the problem of hiding of information by respondents. This could partly be due to the nature of information being sought. The study also face the problem of long duration to complete filling up the questionnaires because the staff had increased work load than usual. The study assumes that there are other factors that may have an influence on firm performance in private insurance companies of Ethiopia which may include government interference, frequent transfers of managers and lack of transparency.

And also, since the research encompasses only four components of innovation strategy, it may not give completed and full picture of the implementation of innovation strategy but it give clear picture about the current status of the implementation of innovation strategy and its influence on the performance of private insurance companies within its specified scope. Furthermore, though there was a good number of primary and quantitative data available, and the research was based merely with these data, major limitation remains in finding secondary data and by not employing

qualitative data, such as data obtained from managers through interview or Focus Group Discussion. In addition to this, the limitations remain, as the study does not including managerial say and other workers' opinion. These factors were considered as limitation of this study.

1.9. Definition of Key Terms

Innovation: In this study innovation was referred as the commercial or industrial application of something improved, an improved product, process, or method of production; an improved market or sources of supply; an improved form of commercial business or financial organization.

Innovation Strategy: In this study innovation strategy was denoted as a plan used by a company to inspire advancements in technology or services, usually by capitalizing money in research and development activities, and it is important for companies that want to increase competitive advantage.

Process Innovation: In this study process innovation was referred as developing a new or substantially enhance production process by a way of new equipment or reengineering of operational process.

Technological Innovation: In this study technology innovation was denoted as the process where an organization (or a group of people working outside a structured organization) boards in a journey where the significance of technology as a basis of innovation has been identified as a critical success factor for increased market competitiveness.

Product Innovation: In this study product innovation was referred as the introduction of a good or service that is new or significantly improved regarding its characteristics or intended uses; including significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics.

Marketing Innovation: In this study marketing innovation was referred as the implementation of a new marketing method involving significant changes in product design or packaging, product placement or pricing strategy.

Firm Performance: In this study firm performance was referred as a measure of the degree to which a firm has attained its set goals and objectives.

Insurance Company: In this study insurance company was referred as an insurance firm and intermediaries like insurance brokers and insurance agents, risk managers or loss adjusters who undertake to cover risks of the insured.

1.10. Organization of the Study

This study was organized in to five chapters. The first chapter states the general introduction and background of the study. Chapter two presents theoretical and empirical literatures related to the research area. It also consists of research gap and conceptual framework of the study. The third chapter outlines the research methodology and research design. The research results and discussions are presented in chapter four. The last chapter presents the major findings, the drawn conclusions and recommendation, and wind up the report by highlighting future research areas.

Chapter Two

2. Literature Review

2.1. Introduction

This study uses the basic concepts: Influence of Innovation Strategies on Insurance Firm Performance. The issues on these concepts have been the concepts in the literature concerning innovation strategy and its influence on insurance firm performance. This chapter deals with the arguments highlighted in the literature on some innovation strategies and their influence on insurance firm performance. It begins with the varied definitions of innovation strategy and factors for the successful implementation of innovation strategies; and the elements in innovation strategies. And also insurance firm performance and its indicators and measurements were highlighted. At the end, empirical review on the relation between the four innovation strategies and insurance firm performance were indicated.

2.2. Innovation

As Amabile, et al. (1996) defined innovation, it is the successful implementation of creative ideas within the organization. A more inclusive definition is provided by West and Farr (1990). They defined innovation as an intentional introduction and application of new products, processes, procedures, or ideas that are designed to significantly benefit the individual, the group, the organization or wider society. This definition is significant because it distinguishes innovation from creativity in as much as innovation involves the intentional introduction and application of new and improved ways of doing things (Anderson, et al., 2004). More simply, Barnett (1953) defines innovation as the introduction of something new. In the literature, innovation is commonly analyzed as a combination of invention and exploitation (Kikoski and Kikoski, 2004). It is said that innovation can be attained through two distinct strategies, namely exploitation and exploration, where exploitation is making use of existing opportunities and exploration involves the search for new ones (Schulze, et al., 2008).

Previous research on innovation supports the relationship between effective knowledge management and innovation (Smith, et al., 2005; Darroch and McNaughton, 2002). For example, Dougherty, et al. (2002) argue that innovation relies heavily on the build-up of new knowledge in an organization, which facilitates creative solutions. They further note that when knowledge is transferred among groups within the organization, existing ideas from one group appear novel to another, and vice versa, resulting in possibly new products or services.

Generally, continuously gathering and mixing new knowledge will lead to innovativeness (Subramaniam and Youndt, 2005). The effect of knowledge involvement can be better explained when both dimensions of innovation are considered together. It can be said that for unfair innovation, transferred knowledge is used to improve an organization's existing products, processes or services, whereas knowledge forms a basis for the production of new products and technologies in the case of exploratory innovation (Bierly, et al., 2009). Whenever employees within the organization share their touchable experiences and accrued knowledge with each other, creativity and innovation is enhanced. Therefore, knowledge sharing is important for both exploitative and exploratory innovation.

2.3. Innovation Strategy

Globally, innovation strategy is an important factor for organization, sustainable competitive advantage and financial performance (Nybakk and Jenssen, 2013). Innovation strategy is seen as capable of creating organizational direction by charting the course of the firm's effort, by focusing the effort through promoting coordination, by providing people with an easy way to understand the organization and by providing consistency and reducing ambiguity (Mintzberg, 2012). It has been suggested that in service industries like mobile telecommunication, where competition can move very quickly and new players can enter easily, there is a constant need to think strategically about what is going on (Schmenner, 2012). This appears to be precisely what manufacturing firms, in particular, have begun to do in recent years.

A strategy is a plan that delivers an organization with the planned course of action and also assists as a guide when dealing with situations (Luswet, 2013). A strategy is about creating a niche which will generate sufficient revenue to enable an organization outsmart its competitors. A good strategy is one that actually generates a competitive advantage that differentiates an organization with its competitors by giving it sustainable edge that is valuable, rare and not easy

to imitate (Jin, et al., 2013). Innovation refers to the process of translating an idea or invention into a good or service that creates value or for which customers will pay; it is finding a better way of doing something (Frame and White, 2013). Innovation can be viewed as the application of better solutions that meet new requirements, in-articulated needs, or existing market needs. Innovation is accomplished through having effective products, processes, services, technologies, or ideas that are readily available to markets, governments and society. The term innovation can be defined as something original and, as a consequence, new, that breaks into the market or society (Frankelius, 2013).

Innovativeness is one of the fundamental instruments of growth to enter new markets, to increase the existing market share and to provide the company with a competitive edge (Gunday, et al., 2011). Motivated by the increasing competition in global markets, companies have started to hold the significance of innovation, since dynamic technologies and real competition in the global arena quickly wear away the value added of existing services and products. Therefore, inventions entails a crucial element of the company strategies for many reasons like applying for manufacturing processes that are more productive, to improve the market, to look for positive image in the perception of the customer and hence to increase justifiable competitive advantage (Gunday, et al., 2013).

Innovation strategies have been found to be critical requirement for the growth and profitability of organizations. It has a substantial impact on corporate performance by producing an improved market position that takes competitive advantage and greater performance (Walker, 2013). Innovation strategy is a significant element for constant firms' performance. Much weight has been accorded on structure innovative institutions and the administration of the innovation progression as necessary basics of institutional survival. Firm's strategic innovation level is determined by set indicators or standards of effectiveness, efficiency, and environmental accountability such as productivity, cycle time, regulatory compliance and waste reduction (Brown, 2010).

Innovation strategy is one of the important instruments of growth strategies to enter new markets, to increase the existing market share and to deliver the company with a competitive edge (Nybakk and Jenssen, 2013). Motivated by the increasing competition in global markets, companies have started to hold the importance of strategic innovation, since quickly changing

technologies and severe global competition quickly erode the value added of existing products and services. Thus, strategic innovations establish an essential component of the corporate strategies for several reasons such as to apply more productive processes, to perform better in the market, to seek positive status in customers' perception and as a result to gain sustainable competitive advantage. Innovations provide firms a strategic orientation to overcome the problems they encounter while striving to achieve sustainable competitive advantage (Hitt, et al., 2013).

2.3.1. Process Innovation Strategy

Process innovation is the implementation of a new or significantly improved production or delivery method. It includes significant changes in techniques, equipment and software. They can be designed to decrease unit costs of production or delivery, to increase or improve product and delivery quality (OECD, 2005).

Process innovation has an internal centre, and the customers are end-users within the organizations who use and work with the new process (Damanpour and Gopalakrishnan, 2001). Process innovation thus seeks improvement to or redesign of business processes with a view for boosting customer satisfaction and organizational efficiency and efficacy (Harrington, 1991).

Process innovation offers many competitive advantages (Skinner, 1984). Process innovation has been defined as an intentional effort to bring change and/or new methods of placing work structures, processes or procedures in organizations, as well as changes in individual and group behaviors and characters (West and Farr, 1990). Organizations adopt process innovations for many different reasons to protect or advance their performance and to respond for changes in the external environment (Sisaye and Bienberg, 2010).

In this work, the definition of process innovation is process innovation at work that is always new. The organization has encouraged employees to attend training in the development process that is always new. The company has invested in the development and process improvements that are always available to help organizations achieve competitiveness and have operated successfully.

2.3.2. Technological Innovation Strategy

Innovative firms are able to link their essential technology strategies, with innovation strategy and business strategy. This alignment generates a powerful mechanism for competitive advantage. Rogers (1995) in a global survey of 109 firms found that the efficiency of the linkage between technological strategy and business strategy was a major factor of firm performance.

Effective forecasting helps organizations to identify future developments in technologies, products and markets, generate more refined information, reorient the company to avoid threats or grasp new opportunities and to improve operational decision making (Burgelman and Rosenbloom, 1989).

Technological innovation not only serves as a significant competitive tool (Chataway, et al. 2007) but also shows an important role in improving the firm's performance. Although the association between innovation and financial business performance is not simple and well understood, prior research specifies a strong interaction between growth in sales and different innovations; between expenditure on research and development and new product statements and with performance measures such as value added and market to book value (Hipp, et al., 2000; Tidd, 2001). A few of the effects which can be associated with service process innovations are: improvement to the service provider's productivity and flexibility; more rapid production and/or delivery of services; improvement in quality of services provided; increased market presence through a wider range or a more 'user-friendly' set of services (Hipp, et al., 2000). Product-process innovation has been found to have a positive impact on financial results, market position and bargaining power (Jenssen and Randoy, 2006).

2.3.3. Product Innovation Strategy

Product innovation is defined as the introduction of a good or a service that is new or significantly improved regarding its characteristics or intended uses, including important improvements in technological specifications, components and materials, combined software, user friendliness or other functional characteristics (OECD, 2005). It can utilize new knowledge or technologies, or it can be based on new uses or combinations of existing knowledge or technologies. Product innovation is the result of a difficult process driven by advancing technologies, changing customer demand, shortening product cycles and increasing national and international competition. It is normally assumed that successful product innovation demands a

strong intra-firm interaction as well as between the firm and its customers and suppliers (OECD, 2005).

Different terminologies have been used to describe product development. Crawford (1994) for example, embraces two distinct activities: old product development, which involves updating and improving existing products, and new product development, which involves a greater degree of innovation challenge. Meyer (1996) similarly characterized product development into primary and secondary innovations. Primary innovations were broadly concerned with the development of new markets and relate to instances where there is a high degree of technical and a commensurate change in consumer behaviour. Secondary innovations, on the other hand, are basically business or company focused and typically contain developments to an existing market (Gaynor, 2002).

According to Storey and Easingwood, (1998), product innovation offers the most obvious means for producing revenues. Process innovation, on the other hand, provides the means for maintenance and improving quality and also for saving costs. Improved and deeply changed products are stated as particularly significant for long-term business growth. The power of product innovation in helping companies hold and grow competitive position is undeniable.

Marketing Innovation Strategy

Market innovation is stated as the implementation of a new marketing method involving significant changes in product design or packaging, product placement or pricing strategy. Its target is to better meet customers' needs, to open up new markets, or to give the firm's products a new position in the market with the intention to increase sales incomes. They are strongly related to pricing strategies, product offers, design properties, product placements and promotion activities (OECD, 2005).

Market innovation is concerned with refining the mix of target markets and how chosen markets are best obliged. Its purpose is to identify better (new) potential markets; and better and new ways to serve target markets. Market segmentation, which involves dividing a total potential market into smaller more manageable parts, is critically important if the aim is to develop the profitability of a business to the full. Incomplete market segmentation will result in a less than

optimal mix of target markets, meaning that revenues, which might have been earned, are misread (Kimberly and Evanisko, 1981).

It is the main accountability of marketing specialists to give such insights. Sometimes this responsibility is seen to cover merely the identification of present and future geographical market chances. A very wide range of possible criteria exists for segmenting, stretching from objective criteria based on demographic data through to subjective criteria based on life style interpretations of consumer and business buying behaviour (Anderson and Weitz, 1996).

The value of any marketing strategy is questionable if it is not congruent with the general strategy of the organization. Marketing strategies which do not reflect organizational goals, can detrimentally affect firm's performance results. Marketing is also one of the most flexible elements: it can be changed quickly, unlike product features and channel commitments (Kotler, 2011).

2.4. Firm Performance

Firm performance can be measured in a variety of ways, containing financial performance (like profitability, return on investment), product performance (like product reliability, number of unique product features), and market performance (like market share, customer satisfaction) (Jones, et al., 2001).

For business firms, two groups of measures may help as a foundation for performance assessment. They are growth measures such as sales growth, and profit measures such as return on assets (ROA) and return on sales (ROS). The former is symbolic of how effectively a firm can open up new markets or increase in existing markets. The latter shows the efficiency of its operation (Li and Ye, 1999).

Some empirical evidence recommends that in certain cases both internal and external technology acquisition should lead to better firm performance, along several performance processes. Zahra (1996) considered the relationship between firm financial performance and technology strategy and found that while external technology finding is often beneficial, its effect on firm financial performance was moderated by the firm's operating environment and was negatively associated with financial performance in stable and homogeneous environments (Jones, et al., 2000). Miles

and Snow (1994) suggested that improved business performance requires an organizational structure, information systems and management style that are related to a specific-firm strategy.

Despite the problems in clearing up the contribution of information technology to firm performance, a few studies have settled on the importance of the arrangement among business strategy, information technology, and firm performance. In a study on firm performance, Croteau and Bergeron (2001) used both an objective (return on assets) and a subjective measurement, and the results obtained were comparable and significant.

A strategic plan must specify goals, strategic objectives and actions and the final performance measures by which management and the stockholders will gauge success. Top management's performance can usually be measured in terms of sales volume, market share, cash flow, profit, ROI, dividends and market value (Donovan, 2009).

2.4.1. Measures of Insurance Firm Performance

There is no single metric that is perfect for measuring insurance firm performance. This is because different metrics are used in different situations. Some of the parameters used to measure insurance firm performance include: insurance firm profitability, insurance firm market share, level of insurance firm growth and level of customer satisfaction.

2.4.1.1. Level of Insurance Firm Profitability

Insurance firm profitability metrics is used to show the extent to which a company has been efficient in its operations over a given period of time. The use of profitability metric is criticized because it is seen as backward-looking and passed by time and that the measure is uncertain about future events; for instance depreciation and amortization. The metric is also criticized by Karanja (2012) since it is limited to certain standards that are set by the profession. Common metrics that are used measure the firm profitability include; Return on Resources (ROA), Return on Value (ROE), Earnings before Tax and Interest edge (EBTI), Net wage over Incomes (NWOI), Rate of return for money invested and monetary esteem included (Sanchez, et al., 2013). The level of profit for value measures the shareholders return on their speculation made. ROE is communicated as net wage after charges partitioned by aggregate value (Khan, et al., 2013). ROE metric is favoured since it encourages a superior perspective of benefit use. The

metric is additionally favoured because it is the simplest to utilize when measuring the arrival to the shareholders.

Return on Resource (ROA) also measures the arrival to every firm resource and is regularly utilized as a general record of money related performance. The organizations' arrival on resource level is for the most part used to gauge the proficiency of the administration to create salary from every one of the assets of the firm (Khan, et al., 2013). ROA used to gauge the firms performance aspects such as operating and financial performance (Love, et al., 2002). The metrics' measurement is such that the higher the firms ROA, the more the effectiveness in the use the firms' assets to the shareholders advantage (Hafiz, 2011). High ROA also shows that the firm uses its assets to serve the shareholder's economic interests (Abdelkader, 2014). ROA is favoured since it considers the benefit utilized by the firm to bolster the business exercises. This metric shows whether the organization can produce sufficient profit for its benefits other than simply demonstrating deals and benefits (Haiss and Sumegi, 2008). This also enlightens the management on the assets required to run the firm activities. This metric also informs the managements' decision to outsource.

2.4.1.2. Insurance Firm Market Share

Firm market share is the percentage of the market's total sales earned by a particular firm over a specified period of time and is given by tacking the firms sales divided by the total sales of the industry for the same period (Karanja, 2012). Market share is used to give a general idea of the firms' size in relation to its competitor and the market. The level of market share can be determined through the firm's earnings per share, the level of dividend yield, stock price improvements, stock price volatility, market value added, and Tobin's Q (Sanchez, et al., 2013). Market share determination is significant since investors look at the market share increase and decreases to allocate the relative competitiveness of the company's products and services.

2.4.1.3. Level of Firm Growth

Scholars propose that each firm has to start, grow while facing some challenges, then mature and finally decline (Abdelkader, 2014). Every organization focuses on attain a sustainable growth rate over a certain period of time since it constitutes the firms objective. Financial firm just like other organizations engage in Corporate Social Entrepreneurship (CSE) to a large extent to

ensure they achieve a sustained growth in order to enhance their market share. Access to credit and other forms of financing are perceived as strong barrier to firm growth (Hafiz, 2011). As per Haiss and Sumegi (2008), organizations perform CSE exercises to make a positive commitment to the general public which is for the most part connected to association's managed development. Firm growth can be measures through; asset growth, market-share growth, net revenue growth, number of employees' growth, net income growth (Sanchez, et al., 2013).

2.4.1.4. Level of Customer Satisfaction

Customer satisfaction measures how products or services offered by the firm meet or surpass the customer's expectations and is given by repeated sales, more referrals, brand loyalty, positive word or mouth, customer assessment and customer feedback (Abdelkader, 2014). Customer satisfaction level can be measured through; the mix of products and services that the firm offers, the rate of repurchases, the number of complaints registered, the level of new customer retention, Number of new products or services launched and the general level of customer satisfaction (Sanchez, et al., 2013). Customer satisfaction will be given by measures such as repeated sales, more referrals, brand loyalty, positive word or mouth, customer assessment and customer feedback (Abdelkader, 2014).

2.5. Theoretical Review

A theory is a set of assumptions, plans, or accepted facts that tries to provide a plausible or rational explanation of cause-and-effect relationships among a group of perceived phenomenon. A theoretical framework on the other hand is a group of related ideas that provides guidance to a research project or business endeavour (Zahra, 1996). The study was anchored on four innovation theories and they were discussed below.

2.5.1. Disruptive Innovation Theory

The disruptive innovation theory was developed by Christensen in 1997. According to Christensen (1997) in a dynamic and uncertain world, innovation is the key to competitive advantage. As Leiponen (2005) suggested, this theory also increases uncertainty and market pressure. Disruptive innovation is: "a successfully exploited product, service or business model that significantly transforms the demand and needs of an existing market and disrupts its former key players" (Leiponen, 2005).

Leifer, et al. (2001) stated that characterizes problematic developments create principal changes in the exercises of an association and speak to an expansive take-off from existing practices. The more extraordinary the advancement, the more troublesome it is to gauge its market acknowledgment and potential, in this way expanding unpredictability. Troublesome advancements change the amusement through assaulting on the current business, and offer incredible open doors for new benefit development. Hamel (1998) affirm that lone radical advancements prompt to development.

2.5.2. Dilemma Theory of Innovation

The innovator's dilemma theory was proposed by Clayton, Christensen and Raynor in 2013. As per Clayton, Christensen and Raynor (2013) firms wishing to develop confront an irresolvable issue: their current clients will urge them to centre assets on building a superior gadget, while elsewhere another organization is building a device. This is either for new sub-fragments of the market, or for an inside and out new market. The administration problem accompanies the difficulties of supporting business development and proceeding with achievement in light of always emerging and continually propelling innovations (Clayton, Christensen and Raynor, 2013).

Clayton, Christensen and Raynor (2013) recommend that chiefs must settle on key choices with a specific end goal to make development and increment a business' likelihood of progress. In reaction to the recognized dilemma, Christensen with the help of Raynor challenge managers to rethink their methods to innovative growth, from the planning stage of identifying endeavours worthy of development, to the following stages of identifying the players and resources needed to undertake the effort, to the final stages of execution and modification of the strategy.

2.5.3. Innovator's Solution Theory

This theory on the other hand was developed by Clayton (1997). This theory analyses the reasons why companies fail to innovate. As per this theory, numerous firm chiefs don't find out about smart thoughts, and that they surrender to inborn weights to flee from the test of problematic rivalry instead of stand and battle. Clayton (1997) recommend that the choices made as a consequence of similar weights bode well in the short hurried to the people included, however at the appointed time they send the association into a relentless demise winding.

This theory additionally proposes that organizations can and ought to wind up disruptors themselves. This is vital in the today's hyper-quicken business environment. Clayton (1997) recommend that business choices are vital to accomplishing genuinely problematic development and propose rules for building up the association's own particular troublesome development motor. This theory is pertinent to this study since insurance firms can be inventive consequently evading the passing winding.

2.5.4. Knowledge-Based Theory of Innovation

The knowledge-based theory was created from the work of Arrow (1994). As indicated by this theory, an association's capacity to advance depends on upon the pool of information available inside the association (Subramaniam and Youndt, 2005). The company's capacity to produce new information has generally been associated with its in-house research and development exercises. Cassiman and Veugelers (2006) recommend that organizations have started to open up their development forms for outer learning which will empower them consolidate interior speculations with outside assets to profit by complementarities.

The knowledge-based methodology decides advancement endeavours that may affect cost subsequently execution. Kim and Mauborgne, 1997 declare that new information manages the succeeding development endeavors. This relationship may likewise happen in the other path round where the aftereffects of the development administration of the firm make new express information on items and innovations furthermore prompt to the collection of verifiable learning (Kim and Mauborgne, 1997). Along these lines this theory confirms that expanded learning base prompt to an expansion in the suggestion's advancement endeavors.

The effect of innovation strategy on firm performance is better explained by innovators solution theory.

2.6. Empirical Review

Researchers decided direct and significant relationship between innovation and future performance of the firm. In the same way, Daniel and Tilahun (2013) study put some additional evidence in the support of positive effect of innovation on firm performance. They analyzed the relationship between firm innovativeness, their organizational characteristics and firm

performance. The conclusion drawn is the direct association of formalization and centralization with administrative innovation which in turn relates positively with firm efficiency.

The relationship between innovation strategies and insurance firm performance were discussed below. Under consideration it include the four innovation strategies: process innovation strategy, technological innovation strategy, process innovation strategy and marketing innovation strategy and their relation with insurance firm performance.

2.6.1. Process Innovation Strategy and Insurance Firm Performance

Process innovation strategies, include execution of new or essentially enhanced creation or conveyance techniques. Basic process development actions incorporate changes it strategies or hardware (Tavassoli and Karlsson, 2015). Forms in a firm can be intended to diminishing unit expenses of generation or conveyance to increment or enhance efficiency or administration conveyance quality. Prepare advancement methodologies are formed by the securing of epitomized information which goes about as a key system for countering the association's frail inner abilities. Process innovation strategies may include; adopting the supply chain concept, Enterprise engaged consultants from Deloitte international and implementation of the global reference model (GRM).

Procedures and procedures are building the ground for the empowering usage of innovations and the overhaul of the human action framework. This brings forth five areas of improvement that are; organizational strategy, organizational structure, operational process, business information technology and organizational culture (Atalaya, et al., 2013). Business re-building is likewise a procedure advancement methodology. Business prepare re-building recognizes that an association's operations procedures are generally divided into sub-procedures and errands that are done by a few particular practical territories inside the association. Because of that, re-building concentrates on re-outlining the operational procedure all in all with a specific end goal to accomplish the best conceivable advantages to the association and their clients (Atalaya, et al., 2013). These coordinated business procedures are described by various characteristics: top notch yield, prepare possession, client centre, esteem including and cross-usefulness. The possibility of operations process change through operational process re-building is not sufficiently explored by writing.

2.6.2. Technological Innovation Strategy and Insurance Firm Performance

The success of most firms majorly depends on efficient operational processes which result from more investments in technologies that enhance firm internal efficiencies (Murat, 2013). Thus technological innovation strategies adopted by firms should help to identify and explore new revenue opportunities and improve customer satisfaction through reliable delivery. Technological innovation strategies involve the adoption of systems such as Enterprise Resource Planning (ERP) systems that provide capabilities that support and enhance processes associated with producing. The systems should also help improve firm activities by automating routine tasks such as order management (Vehvilinen, et al., 2010).

Evangelista and Vezzani (2012) evaluated innovation strategies adopted by Standard Chartered Bank and found that Standard Chartered Bank just like most banks in Kenya adopted Technological Innovation Strategies to help in the advent of globalization and to enhance their methods for working together keeping in mind the end goal to draw in and keep up existing clients. The techniques were received since they concentrate on all parts of the business operations extending from client mind, mechanical progression to better items in the market. Zhou and Wu (2010) assessed the advancement methodologies embraced by little and medium venture of Nairobi Region because of worldwide rivalry and established that SMEs in Nairobi County use technological innovation as a strategy in global entrepreneurship to a moderate extent. The study also established that the SMEs in Nairobi use technology management as a strategy in global entrepreneurship.

2.6.3. Product Innovation Strategy and Insurance Firm Performance

Product innovation strategies involve the presentation of a decent or an administration that is new to the market or has been altogether enhanced in connection to its attributes or employments. These incorporate critical improvements in mechanical determinations, segments and materials, joined, or comfort of use among different capacities (Tavassoli and Karlsson, 2015). Product innovation strategies are majorly driven by advance in technologies, ever changing customer taste and preferences, shortening item cycles and expanding competition. A study by Soi (2016) on advancement Systems among German Firms that included three development procedures: refraining from advancement, presentation of items that are known in the market yet new to the firm (impersonation) or presenting market oddities (development)

found that IP assurance strategy and antitrust approach, can strengthen each other in advancing advancement since they increase firms' incentives to introduce market novelties.

Tavassoli and Karlsson (2015) also analyzed innovation strategies of firms in Sweden for the period somewhere around 2002 and 2012 utilizing sixteen development techniques, which were made out of Schumpeterian four sorts of developments (process, item, advertising, and authoritative) in addition to different blends of the four sorts and found that organizations are not homogenous in picking advancement systems; rather, they have an extensive variety of inclinations with regards to advancement procedure. The specialists furthermore found that organizations likewise hold on to have such a different development technique feelings.

2.6.4. Marketing Innovation Strategy and Insurance Firm Performance

Marketing innovation strategies involve the implementation of new marketing methods and models that would significantly change the product design or packaging, product placement or pricing (Tavassoli and Karlsson, 2015). Marketing innovation strategies are targeted at meeting the customer's needs and opening up new markets or giving the firm's products a new position in the market to increase the firm sales hence income. Common marketing innovation strategies include; market pricing strategies, product offers, design properties, product placements strategies and promotion activities. According to Tajeddini (2010), innovative marketing strategies improve brand relationship and experiences with customers thus exert their influence on brand marketing efforts thus allow brands to be customer centric.

A study by Lusweti (2013) on development procedures incorporated by radio stations in Kenya and found that the reaction of systems (whether cooperative or aggressive techniques) is in this manner important in controlling advancement and in making the development happen and that advancement methodologies are extremely vital in any business henceforth they ought to be set up at any cost since it helps the relationship to understand their targets.

2.7. Research Gaps

From the literature review it is evident that innovation strategy have been a focus of various studies and publications around the globe. However there are limited publications that investigate the relationship between innovation strategies and firm performance in the most organizations of Ethiopia. The only literature that could be found on innovation strategy were by

Mulu (2009): Innovation and Microenterprise Growth in Ethiopia; and he found that firms larger in size and in manufacturing are more likely to engage in innovative activities.

A publication was found done by Taye (2018) on the analysis of factors affecting financial performance evidence from selected Ethiopian Insurance companies. Another journal publication was done by Dr. Yuvaraj and Abate (2013) in the performance of insurance companies in Ethiopia; and they found that growth, leverage, volume of capital, size, and liquidity are identified as most important determinant factors of profitability hence growth, size, and volume of capita are positively related. And also a publication was found by Kanbiro and Ayneshet (2019) on factors affecting financial performance of insurance companies in Hawassa City Administration, of Ethiopia; and they found that endorsing, premium growth, solvency ratio, growth rate of GDP, and inflation rate have significant effect on financial performance of the insurance companies operating in Hawassa city Administration. And lastly a publication by Kahase (2018) was found on Ethiopian insurance sector and its contribution to economic growth; and he found that insurance premium and insurance claim has significant and negative relationship with economic growth in the long run and short run dynamics. However insurance profit has positive significant and insurance investment has positive but insignificant relation with economic growth. From these publication no one has been done on the influence of innovation strategy on firm performance in the existing insurance companies in Ethiopia, and this research sought to fill this gap.

2.8. Conceptual Framework

A conceptual framework shows the relationship between the independent variables and dependent variables. An independent variable is the supposed cause of changes in the dependent variable (Kothari, 2004). The conceptual framework for this study illustrates the perceived link between the independent variables (process innovation strategies, technological innovation strategies, product innovation strategies and marketing innovation strategies) and the dependent variable (FP).

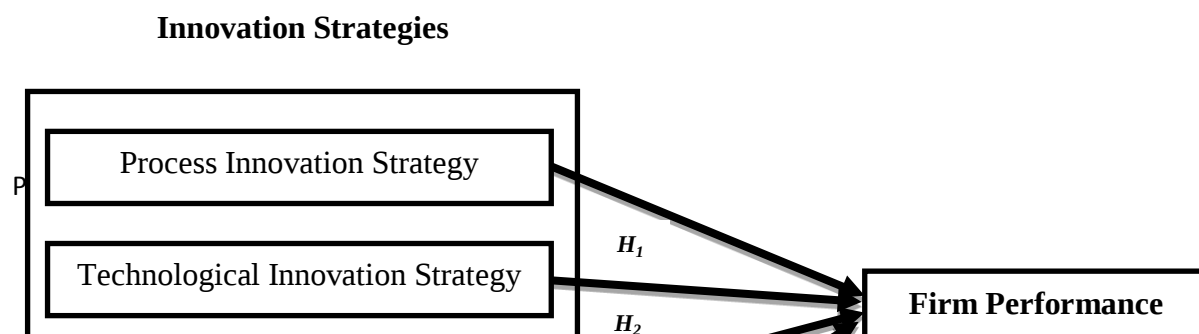


Figure 1: The conceptual framework

2.9. Research Hypotheses

The study is characterized by research hypotheses that specify the influence of the independent variables on the dependent variable being studied. Hypothetical backgrounds related to influence of innovation strategies on the performance of insurance firms to answer the research problem were developed in the following hypothetical statements:

H₁: Process innovation strategy has a significant influence on the performance of private insurance firm in Ethiopia.

H₂: Technological innovation strategy has a significant influence on the performance of private insurance firm in Ethiopia.

H₃: Product innovation strategy has a significant influence on the performance of private insurance firm in Ethiopia.

H₄: Marketing innovation strategy has a significant influence on the performance of private insurance firm in Ethiopia.

Chapter Three

3. Research Design and Methodology

3.1. Introduction

This chapter deals with the research design of the study; sources of data; population, sample and sampling techniques; data collection instruments; data collection procedures; methods of data analysis and interpretation; reliability and validity of instruments; and the ethical considerations in the study.

3.2. Research Paradigm or Philosophy

According to Zikmund, et al. (2009) a paradigm is a collection of beliefs and assumptions about what should be studied and how. Paradigm concerns methodology, epistemology and ontology. The study makes use of the positivist point of view, due to the quantitative nature of the research with the aim of its objective and obtaining empirical information on the influence of innovation strategy on the performance of private insurance firm in Ethiopia.

3.3. Research Design

This study was aimed at studying the influence of innovation strategy on the performance of private insurance firm in Ethiopia; thus, it involves the relationship of independent and dependent variables. In this regard, it needs more control and confidence over the research process and the research output. Therefore, as Zikmund, et al. (2009) noted, choosing for a research design which can specifies the methods and procedures for collecting and analysing the needed information and provides a framework or plan of action for the research is essential.

Accordingly, among the many designs, the explanatory research design was employed in this research; it is used to investigate a problem which is not clearly defined. It is conducted to have a better understanding of the existing problem, but will not provide conclusive results. For such a research a researcher starts with a general idea and uses this research as a medium to identify the issues that can be the focus for future research. An important aspect here is that the researcher should be willing to change his/her direction subject to the revelation of new data or insight. Such a research is usually carried out when the problem is at preliminary stage. It is often referred to as grounded theory approach or interpretive research as it used to answer questions like what, why and how.

Due to these reasons, explanatory research design was found appropriate for this research also required employing both descriptive and inferential statistics, and getting optimum data from the population.

3.4 Research Approach

since this research is studying the relationship of variables (innovation strategies and insurance firm performance), and involves numerical scales, which represents respondents attitude, it needs rigorous and objective assessment of the research variables. Thus, among the two dominant methods (qualitative and quantitative methods), quantitative research method was employed for this research.

According to Kothari (2004) quantitative method involves the generation of data in quantitative form which can be subjected to rigorous quantitative analysis in a formal and rigid fashion, whereas, qualitative method is concerned with subjective assessment of attitudes, opinions and behaviour. In contrasting these two dominant methods, Zikmund, et al. (2009) also summarizes their difference as: quantitative methods direct a considerable amount of activity towards

measuring concepts with scales that either directly or indirectly provides numeric values. The numeric values can, then, be used in statistical computations and hypothesis testing, whereas, qualitative researchers are more fascinated in observing, listening, and interpreting. For these reasons, qualitative research is said to be more subjective, meaning that the results are researcher-dependent. Therefore, due to these reasons, to attain objectivity in testing hypotheses, and controlling subjective interference from the result, it was apparent and employed quantitative method for this study.

3.5 Time Horizon

According to Saunders, et al. (2009), in planning the research process, there are two time dimensions to be considered, namely: cross sectional and longitudinal. Cross sectional studies involves the study of a particular phenomenon (or phenomena) at a particular time and often employ a survey strategy. On the other hand, as Zikmund, et al. (2009) coined, longitudinal studies help us to examine continuity of response and to observe changes that occur over time.

In this regard, because of the time constraint; and since this research was concerned on the current practice of innovation strategies and their influence on private insurance companies; and above all since the study was employed explanatory research design and a onetime data collection was needed, cross sectional study was employed.

3.4. Population, Sampling and Sample Size Determination

3.4.1. Study Population

According to Perry (2003), a population refers to all the elements in a well-defined collection or set of values. And also he describes population as all members of any well-defined class of people, events or objects. It means therefore that any entity, group or set which constitutes a population must have at least one attribute of characteristic which is common to all of them. Since this study focuses on assessing the practice of innovation strategy and investigating its influence on private insurance firm, the major entities to be studied were private insurance companies in Ethiopia. There are a total of 16 registered private insurance companies in Ethiopia operating in Addis Ababa. These 16 private insurance companies have a total of 280 branches in Addis Ababa. The study targets the managers of these private insurance companies.

3.4.2. Sample Frame and Sample Location

Sampling is that part of statistical practice concerned with the selection of individual observations intended to yield some knowledge about a population of concern, especially for the purposes of statistical inference (Issac and Michael, 2005). A sample frame is a listing of units or potential respondents from which a sample may be picked from such a listing. The sampling frame can be defined as set of source materials from which the sample is selected. According to Issac and Michael (2005), in a sample selection procedure, people who have a chance of being included among those being selected constitute the sample frame, and that is considered to be primary step towards evaluating the quality of a sample. The definition also includes the purpose of sampling frames, which is to give a means for choosing the particular members of the target population that are to be comprises in the survey (Perry, 2003). So, the sampling frame for this study was managers of the sampled branches of private insurance companies of Ethiopia located at Addis Ababa city. However, sample location is a place where a research is conducted or a place where information is acquired. The private insurance companies of Ethiopia in Addis Ababa region was selected for its accessibility and proximity.

Table 2: The list of private insurance companies and their number of branches in Addis Ababa

No.	Insurance Company	Number of Branches in Addis Ababa
1.	Abay Insurance Company	13
2.	Africa Insurance Company S.C	16
3.	Awash Insurance Company S.C	28
4.	Berhan Insurance Company S.C	10
5.	Bunna Insurance Company S.C	13
6.	Ethio-Life Insurance Company S.C	16
7.	Global Insurance Company S.C	11
8.	Lion Insurance Company S.C	16
9.	Lucy Insurance Company S.C	12
10.	National Insurance Company of Ethiopia	22
11.	Nib Insurance Company S.C	27
12.	Nile Insurance Company S.C	20
13.	Nyala Insurance Company S.C	15
14.	Oromia Insurance Company S.C	20

15.	Tsehay Insurance Company S.C	15
16.	United Insurance Company S.C	26
Total		280

Source: Annual Report of National Bank of Ethiopia (2018/19)

3.4.3. Sample Size

Size of the sample refers to, the number of items to be selected from the population to constitute a sample. Based on suggestion of Kothari (2004) size of sample should neither be exceptionally large, nor too small; rather, it should be optimum; and optimum sample is one which fulfils the necessities of efficiency, representativeness, reliability and flexibility. Thus, the study was used 8 private insurance companies (which have 165 (58.9%) branches in Addis Ababa) as a sample from the complete list of the 16 private insurance companies under investigation.

Accordingly, the sample and the formula below used to calculate sample size, according to Kothari (2004). The basis to employ this formula lies on the assumption that, it is used for the finite population which can be listed the entire population and enable to have maximum number of sample respondents.

$$n = \frac{Z^2 P Q N}{\alpha^2 (N-1) + Z^2 P Q}$$

Where: n – is the sample size for a finite population
 N – is size of population
 P – is population reliability and it is equal to 0.5
 Q = 1 - P
 α - is margin of error considered, 5% for this study
 Z α /2: is normal reduced variable at 0.05 level of significance and Z is 1.96

Thus, $n = \frac{(1.96)^2 \times 0.5 \times 0.5 \times 280}{(0.05)^2 (280-1) + (1.96)^2 \times 0.5 \times 0.5} = 165$ branches were the sample size for the private insurance companies in Addis Ababa.

Table 3.1: The list of the sampled private insurance companies and their number of branches in Addis Ababa

No.	Company	Sample Size	Percent
1.	Awash Insurance Company S.C	28	10%

2.	Africa Insurance Company S.C	16	5.7%
3.	National Insurance Company of Ethiopia	22	7.9%
4.	United Insurance Company S.C	26	9.3%
5.	Global Insurance Company S.C	11	3.9%
6.	Nile Insurance Company S.C	20	7.1%
7.	Nyala Insurance Company S.C	15	5.4%
8.	Nib Insurance Company S.C	27	9.6%
Total		165	58.9%

Total population = 280 branches

3.4.4. Sampling Technique

This study draws 165 sample branches of private insurance companies from the population under investigation. Thus, to make inferences about the population based on the characteristics of the sample, the sampling technique which employed in this study was probability sampling and to ensure each element in the population to have an equal chance of being included in the sample, simple random sampling technique was used for the private insurance companies and the managers of these insurance companies were used as respondents for the study.

According to Saunders, et al. (2009), in probability sampling technique, the chance or probability of each case being selected from the population is known; and is usually equal for all cases; and it is often associated with survey research strategy. In this case, it is possible to answer research questions and to achieve the objectives that require the researcher to estimate statistically the characteristics of the population from the sample. On the other hand, in non-probability sampling, the probability of each case being selected from the total population is not known and it is impossible to answer research questions or to address the objectives that require making statistical inferences about the characteristics of the population. Therefore, relying on the advantages of probability sampling over non-probability sampling for making statistical inferences, and as it is associated with survey strategy, it was apparent to employ probability sampling method for this study.

Therefore, by making use of the above sampling technique, the questionnaire was distributed to the managers of the selected sample insurance companies, based on the sample frame.

Subsequently, out of the 165 questionnaires distributed, 158 workable data (95.76%) were collected and used for data analysis.

3.5. Data Source and Type

The sources of data for this study were the managers of the selected branches of private insurance companies of Ethiopia. The study involves dependent variable (private insurance firm performance) and independent variables (innovation strategies). To measure the dependent and independent variables, to meet the research objectives and answer the research questions developed under study, as Kothari (2004) noted, there should be keep in mind two types of data; which are primary and secondary data. The primary data are those which are collected afresh and for the first time, and thus happen to be original in character. The secondary data, on the other hand, are those which have already been collected by someone else and which have already been passed through the statistical process.

In this regard, to maintain originality, primary data (on innovation strategies and insurance firm performance) were collected using self-administered questionnaire from the targeted sample respondents. Furthermore, to strengthen the analysis and to relate results with established frames and conclusions, previous studies and published research outputs were used.

3.6. Data Collection Instruments

Perry (2003) defines data collection tools as the instruments used to collect information in research or the methods employed to collect research data. The choice of the methods to use is influenced by the nature of the problem and by the availability of time and money (Cooper and Schindler, 2006). The researcher was used questionnaires to collect primary data from all participants of the study. Cooper and Schindler (2006) argued that a questionnaire is efficient as a research tool because the researcher is likely to obtain personal ideas from a respondent.

3.6.1. Measurement of Innovation Strategy

To measure the independent variables (innovation strategies) closed-ended questionnaires were used. The questionnaire have 40 items in five point Likert scale ranges from 1 (Strongly Disagree) to 5 (Strongly Agree) and respondents was requested to evaluate the current practice of innovation strategies in private insurance companies of Ethiopia. The questionnaires have items

represented four categories: process innovation strategy (10 items), technological innovation strategy (10 items), product innovation strategy (10 items) and marketing innovation strategy (10 items). The researcher was adopted past studies (Gunday, et al., 2011; Soi, 2016) innovation type strategies measurement scales. In these studies sub scales of innovation strategies were found reliable with Cronbach's alpha coefficient score of 0.873 for process innovation strategy, 0.900 for technological innovation strategy, 0.870 for product innovation strategy and 0.811 for marketing innovation strategy.

3.6.2. Measurement of Insurance Firm Performance

To measure the dependent variable (insurance firm performance) closed-ended questionnaires adopted by Venkatraman (1989) were used. The participants rated themselves on a five point Likert scales ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The questionnaire has items of firm performance (8 items). The measurement of insurance firm performance has often been a complex one for researchers and scholars. Meeting the internal and external goals of an organization are the outcomes for firm performance (Lin, et al., 2008). Sohn, et al. (2007) argues that firm performance is a multidimensional concept whose dimensions can be marketing, departmental, finance, production or related to profit and growth. It can be measured with objective or subjective indicators. In this study, the objective measures of firm performance were preferred. The reliability score for this scale (Cronbach's coefficient alpha) was 0.931.

3.7. Pilot Testing

According to Kothari (2004), testing the data collection instruments for their understandability in terms of clarity, validity, readability and completeness has paramount importance. Accordingly, this process allows checking whether sample respondents understand instructions and the meaning of each question and if they get difficulties in responding for questions.

A pilot study was done on the managers of two private insurance companies (Ethio-Life and Lion Insurance Companies), which have 32 branches, in Addis Ababa areas which were not included in the study to test for the reliability and the validity of the questionnaires. Subsequently, 32 questionnaires were distributed for pilot testing and it was found that, there were difficulties in understanding of some questions in all instruments. In this regard, upon finalizing the pilot test, without making significant change on the original tool, some adjustments

were performed on the instruction and wording of these items in all instruments by the help of the research advisor.

3.8. Data Collection Procedures

The research data collection procedure followed the subsequent patterns: respondents were communicated and were asked for their consent to participate in the research; once their consent is obtained, respondents, then, notified how anonymity, confidentiality and ethical principles are preserved during the research process; next, questionnaires were distributed to all selected respondents, during personal meeting, with a covering letter for each respondent. The researcher administer the questionnaire individually to all respondents of the study. The study exercises care and control to ensure all questionnaires that are issued to the respondents are received. Finally, questionnaires were collected at the next day by checking the completeness of the data and put in to SPSS, version 20 for analysis.

3.9.Operationalization of Variables

Operationalization involves measurement of independent variables using parameters. In this study the independent variables that should be measured are process Innovation strategies, technological Innovation strategies, product Innovation strategies and marketing Innovation strategies. And the variables considered to influence the Firm performance in this study are customer satisfaction, reduction in operational cost, service efficiency and timely delivery of services.

Table 3.1: The variables and their expected influence on insurance firm performance

No.	Variables	Definition	Measurement	Expected effect on performance
1.	Process Innovation strategies	Developing a new or substantially enhance production process by a way of new equipment or reengineering of operational process	10 items questionnaire in five point Likert scales adopted by Gunday, et al., 2011; and Soi, 2016	+

2.	Technological Innovation strategies	Developing a new product or service by using new technology in the process	10 items questionnaire in five point Likert scales adopted by Gunday, et al., 2011; and Soi, 2016	+
3.	Product Innovation strategies	Introducing a good or service that is new or significantly improved regarding its characteristics or intended uses	10 items questionnaire in five point Likert scales adopted by Gunday, et al., 2011; and Soi, 2016	+
4.	Marketing Innovation strategies	Implementation of a new marketing method involving significant changes in product design or packaging, product placement or pricing strategy	10 items questionnaire in five point Likert scales adopted by Gunday, et al., 2011; and Soi, 2016	+

3.10. Reliability and Validity of Instruments

As discussed previously, at the instrumentation section, all instruments to measure innovation strategies and private insurance firm performance were found reliable and valid in measuring the variables in previous studies. To this end, to make sure the instruments employed in this research were free from errors, consistent and to check for stability of the measurement, questionnaire were tested before embarking on data collection to ensure its validity and reliability.

Consequently, to insure its validity, six managers of insurance companies including the research advisor, and requested to comment on the representativeness and suitability of the questions in each subscales of the independent variables. They were also asked to comment on the wording of each statement (items). By doing so, the content validity and face validity were insured. Moreover, to ensure construct validity, literatures, books and journal articles were reviewed. To this end, some adjustments were made on instruments without making significant change on the original tool.

To check for reliability of the instruments, those 32 questionnaires, distributed for pilot testing, were used for reliability analysis; and insurance firm performance instrument scored Cronbach's Alpha coefficient of 0.802. Furthermore, during pilot testing, the assessment tool to measure innovation strategies practice at the given 32 branches of private insurance companies was reliable with Cronbach's alpha coefficient of 0.857.

3.11. Data Analysis and Interpretation

Data analysis was guided by the research objectives presented. Once the questionnaires were administered, the mass of raw data collected from the field are systematically organized to facilitate data analysis. According to Kothari (2004), data analysis is the calculation of certain indices or measures along with searching for patterns of relationship that exist among the data groups. Analysis, particularly in case of survey strategy, involves estimating the values of unknown parameters of the population and testing of hypotheses for drawing inferences.

In this regard, to describe the respondent's characteristics, frequency distribution (percent), central tendency (mean) and dispersion (standard deviation) were used. Furthermore, to describe the status of subscales of innovation strategies and private insurance firm performance, the summary of subscales were presented in a table.

Precisely, this study was needed to assess the influence of the independent variables (Process Innovation Strategy, Technological Innovation Strategy, Product Innovation Strategy and Marketing Innovation Strategy) on the dependent variable (private insurance Firm Performance). To measure the relationship of variables and to answer the research questions and to test the research hypotheses correlation analysis (Pearson's Product Moment Correlation Coefficient) was employed. Correlation coefficient is a measure of how closely related two variables are.

A simple linear regressions were also attempted to test the statistical significance of the independent variable (implementation of overall IS) on the dependent variable (insurance FP). And a multiple linear regressions were attempted to determine whether a group of variables together predict a given dependent variable (Cooper and Schindler, 2006). The study was used multiple linear regression analysis to test the statistical significance of the various independent variables (Process Innovation Strategy, Technological Innovation Strategy, Product Innovation Strategy and Marketing Innovation Strategy) on the dependent variable (private insurance Firm

Performance). And also to test for the significance of the combined effect of the independent variables on dependent variable, ANOVA for regression was carried out. Kothari (2004) states that multiple linear regressions is used in situations where the number of independent variables are more than one.

The following multiple linear regression model was used to fit the data.

$$y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + e$$

Where; x_1 = is Process Innovation Strategy (PCIS)
 x_2 = is Technological Innovation Strategy (TIS)
 x_3 = is Product Innovation Strategy (PDIS)
 x_4 = is Marketing Innovation Strategy (MIS)
 y = is Firm Performance (FP)

β_0 is a constant which is the value of dependent variable when all the independent variables are 0

β_i is the regression coefficients which measures the change induced by x_i on y ($i = 1, 2, 3, 4$)

e is the error term

3.12. Ethical Consideration

To maintain ethical standards in this study, the entire research was conducted with following and abiding by the general direction of the Addis Ababa University Senate Legislation (2013), sub article 177.2 about academic exercises, unauthorized information, plagiarism, negligence and falsification. Moreover, based on the accepted ethical issues suggested by Saunders, et al. (2009), the privacy of participants were maintained, voluntary nature of participation and the right to withdraw partially or completely from the research process was granted and communicated, maintenance of the confidentiality of data provided by individuals or identifiable participants and their anonymity was secured.

3.13. Conclusion

The quantitative research method as a suitable research method and explanatory research design as a suitable design were adopted for this research. A pre-test was conducted on managers of two

private insurance companies in Addis Ababa with 32 branches to determine the reliability and validity of the questionnaire. The simple random sampling technique was adopted as a suitable sampling technique for this study. The target population were sixteen private insurance companies with 280 branches in Addis Ababa. The questionnaire was administered to all managers of 165 sampled branches of private insurance companies personally by the researcher and the analysis and interpretation of the results and findings was discussed in the next chapter.

Chapter Four

4. Data Analysis and Discussion

4.1. Introduction

This chapter deals with the presentation, analysis and interpretation of the data on findings under each presentation, aimed at achieving the research objective. In this regard, the unit discusses the data cleaning process; the reliability analysis scores of the instrument employed in this research; the result of tests of assumptions; descriptive statistics on the demographic information of the respondents, on the branch insurance companies and on both dependent and independent variables; inferential analysis which is performed for investigating relationship of variables and influence of independent variable (Process Innovation Strategy, Technological Innovation Strategy, Product Innovation Strategy and Marketing Innovation Strategy) over dependent variable (private insurance Firm Performance); and summary of proposed hypotheses.

4.2. Data Cleaning

Based on the methodologies specified in previous unit, 165 questionnaires were distributed and 162 were returned for analysis. Meanwhile, when the data was checked for its completeness and practical response pattern, only 158 questionnaires were valid or workable responses. Therefore, 4 responses were rejected and cancelled from this study, because both of them are incomplete responses. Accordingly, those 158 workable responses obtained from respondents were used for data analysis with Statistical Package for Social Science (SPSS) Version 20, which is licensed statistical software, for both descriptive and inferential analysis.

Table 4: Return rate of Questionnaires

No.	Company	No. of distributed ques.	No. of collected ques.	No. of valid ques.	Percent of valid ques.
1.	Awash IC S.C	28	27	26	92.9%
2.	Africa IC S.C	16	16	16	100.0%
3.	National IC of Ethiopia	22	22	21	95.5%
4.	United IC S.C	26	25	25	96.2%
5.	Global IC S.C	11	11	10	90.9%
6.	Nile IC S.C	20	20	20	100.0%
7.	Nyala IC S.C	15	14	14	93.3%
8.	Nib IC S.C	27	27	26	96.3%
Total		165	162	158	95.8%

4.3. Reliability Analysis

As Kothari (2004) noted, sound measurement is essential to conduct a good research and test of reliability is important test of sound measurement. Thus, to maintain reliability of the instrument and to make sure that the data collection tool provides consistent results, reliability analysis was conducted on all instruments employed in this research after full scale data collection; and the Cronbach's coefficient alpha score is presented as follows.

4.3.1. Reliability Analysis for Innovation Strategies Instrument

Previous studies on innovation strategies which employed by (Gunday, et al., 2011; Soi, 2016) have tested the tool for its subscales reliability and scored medium to high Cronbach's coefficient alpha. To make sure the selected four subscales (Process Innovation Strategy, Technological Innovation Strategy, Product Innovation Strategy and Marketing Innovation Strategy) are reliable measures and to maintain internal consistency of the scale, reliability analysis also conducted for innovation strategy components after full scale data collection was completed; and the result presented in the following table as follows.

Table 5: Reliability statistics for each components of innovation strategies

Components of Innovation Strategy	Cronbach's Alpha	N of Items
Process Innovation Strategy (PCIS)	.856	10
Technological Innovation Strategy (TIS)	.865	10
Product Innovation Strategy (PDIS)	.844	10
Marketing Innovation Strategy (MIS)	.833	10

Source: Own survey, computed in SPSS, 2020

As illustrated in table 5, the components of innovation strategy as subscales of innovation strategy, were tested for their reliability in measuring the result of innovation strategy in private insurance companies of Ethiopia. Accordingly, they are found reliable with Cronbach's coefficient alpha score of 0.856 for PCIS, 0.865 for TIS, 0.844 for PDIS and 0.833 for MIS. As Zikmund, et al. (2009) noted, scales with a coefficient Alpha between 0.70 and 0.80 are

considered to have ‘good’ reliability and scales with a coefficient Alpha between 0.80 and 0.95 are considered to have ‘very good’ reliability. Therefore, based on the above test results, we can conclude that, all subscales of innovation strategy scored an acceptable Cronbach’s coefficient alpha and the instrument is found reliable for measuring the independent variable.

4.3.2. Reliability Analysis for Insurance Firm Performance

Table 6: Reliability statistics for firm performance

Cronbach's Alpha	N of Items
.833	8

Source: Own survey, computed in SPSS, 2020

As indicated in table 6, the 8 items insurance firm performance scale was tested for its reliability in measuring the performance of the insurance firm in private insurance companies of Ethiopia, and found reliable with Cronbach’s coefficient alpha score of 0.833. Similarly, this instrument was scored high Cronbach’s coefficient alpha such as in Sohn, et al. (2007) the scale is found reliable with Cronbach’s coefficient alpha score of 0.931. Therefore, based on the suggestion of Zikmund, et al. (2009), the instrument is found reliable for measuring the dependent variable the performance of insurance firm.

4.4. Descriptive Statistics

In the following consecutive sections, the descriptive statistics was employed on the demographic information of the managers and companies, the current result of innovation strategy and the level the insurance firm performance are presented and discussed.

4.4.1. Demographic Information of Respondents and Companies

Under this section, the demographic information of the managers which include sex, age, educational qualification, experience in insurance company in general, experience in the current insurance company, experience in the current position, the number of years the insurance company worked in Ethiopia, the current number of employees, the initial and the current capital level were presented.

Table 7: Demographic Information of Respondents

Variable	Categories	Freq.	Per.	Valid Per.	Cum. Per.
Sex of Respondents	Male	127	80.4%	80.4%	80.4%
	Female	31	19.6%	19.6%	100.0%
	Total	158	100.0%	100.0%	
Age of Respondents	25 years and below	9	5.7%	5.7%	5.7%
	From 26 to 35 years	23	14.6%	14.6%	20.3%
	From 36 to 45 years	84	53.1%	53.1%	73.4%
	Above 46 years	42	26.6%	26.6%	100.0%
	Total	158	100.0%	100.0%	
Educational Qualification	Below Diploma	-	0.0%	0.0%	0.0%
	Diploma	-	0.0%	0.0%	0.0%
	1 st Degree	109	69.0%	69.0%	69.0%
	2 nd Degree and Above	49	31.0%	31.0%	100.0%
	Total	158	100.0%	100.0%	
Experience in insurance companies in general	From 0 to 5 years	2	1.3%	1.3%	1.3%
	From 6 to 10 years	31	19.6%	19.6%	20.9%
	From 11 to 15 years	80	50.6%	50.6%	71.5%
	Above 15 years	45	28.5%	28.5%	100.0%
	Total	158	100.0%	100.0%	
Experience in the current insurance company	From 0 to 5 years	8	5.1%	5.1%	5.1%
	From 6 to 10 years	39	24.6%	24.6%	29.7%
	From 11 to 15 years	105	66.5%	66.5%	96.2%
	Above 15 years	6	3.8%	3.8%	100.0%
	Total	158	100.0%	100.0%	
Experience in the current position	Less than 1 year	-	0.0%	0.0%	0.0%
	From 1 to 5 years	29	18.4%	18.4%	18.4%
	From 6 to 10 years	56	35.4%	35.4%	53.8%
	Above 10 years	73	46.2%	46.2%	100.0%
	Total	158	100.0%	100.0%	

Source: Own survey, computed in SPSS, 2020

As shown in table 7, in the sample of private insurance companies of Ethiopia, the majority of the managers, 127 (80.4%) were male and 31 (19.6%) were female. With regard to age category, the highest number of the managers fall under the age group of from 36 to 45 years, which accounts 84 (53.1%) of the total sample of the insurance companies. Accordingly, 42 (26.6%) managers were in the age of 46 and above years. In this regard, it can be observed that more than half of the managers in the sample (79.7%) in the organization were above 35 years of age and

from this result we can induce that the majority of managers in private insurance companies of Ethiopia were at the medium age group.

When we look at the educational qualification of the managers in the sample of private insurance companies of Ethiopia, the highest number of respondent, 109 (69.0%) had first degree followed by 49 (31.0%) second degree and above holders. Therefore, it is possible to say that academically, all of the managers, which accounts 158 (100.0%) hold first degree and above. To this end, as the organization's primary services are to deliver quality service with quality and high performer manager, the education level and the skill requirement was critical factor for implementing innovation strategies.

Accordingly, as shown in table 7, in the work experience in insurance companies in general category, the majority of the managers which accounts 80 (50.6%) were worked in any insurance company from 11 to 15 years and next to that 45 (28.5%) were experienced above 15 years. Then it is possible to say more than half of the managers in the sample private insurance companies (79.1%) were experienced in any insurance companies for above 10 years. And also, in the work experience in the current insurance company category, the majority of the managers which accounts 105 (66.5%) were worked in the current insurance company from 11 to 15 years and next to that 39 (24.6%) were experienced from 6 to 10 years. Then it is possible to say more than half of the managers in the sample private insurance company (70.3%) were experienced in the current insurance company for above 10 years.

At the end, in the same table (table 7), in the work experience in the current position category, the majority of the managers which accounts 73 (46.2%) were worked in the current position above 10 years and next to that 56 (35.4%) were experienced from 6 to 10 years. Then it is possible to say more than half of the managers in the sample private insurance company (81.6%) were experienced in the current position in insurance company for above 6 years.

Table 8: Demographic Information of the Insurance Companies

Variable	Categories	Freq.	Per.	Valid Per.	Cum. Per.
Number of years the insurance company worked in Ethiopia	From 1 to 5 years	-	0.0%	0.0%	0.0%
	From 6 to 10 years	-	0.0%	0.0%	0.0%
	From 11 to 15 years	42	26.6%	26.6%	26.6%
	Above 15 years	116	73.4%	73.4%	100.0%

	Total	158	100.0%	100.0%	
Current number of employees in the insurance company	Below 30 employees	98	62.0%	62.0%	62.0%
	From 31 to 60 employees	60	38.0%	38.0%	100.0%
	From 61 to 90 employees	-	0.0%	0.0%	
	Above 90 employees	-	0.0%	0.0%	
	Total	158	100.0%	100.0%	
Initial capital of the insurance company	Below 20 million	47	30.0%	30.0%	30.0%
	From 21 to 40 million	67	42.2%	42.2%	72.2%
	From 41 to 60 million	25	15.8%	15.8%	88.0%
	Above 60 million	19	12.0%	12.0%	100.0%
	Total	158	100.0%	100.0%	
Current capital level of the insurance company	Below 20 million	38	24.1%	24.1%	24.1%
	From 21 to 40 million	19	12.0%	12.0%	36.1%
	From 41 to 60 million	41	26.0%	26.0%	62.1%
	Above 60 million	60	37.9%	37.9%	100.0%
	Total	158	100.0%	100.0%	

Source: Own survey, computed in SPSS, 2020

As shown in table 8, under the number of years the branch insurance company worked in Ethiopia, 116 (73.4%) branches of the private insurance companies in the sample were worked for more than 15 years in Ethiopia. And also, 42 (26.6%) of the sample branches were worked from 11 to 15 years. This means that all the branches of the private insurance companies in the sample have experience in the insurance sector to adapt innovation strategies and know the influence of innovation strategies in the performance of their company.

Moreover, when we look at the current number of employees in the sample branches of private insurance companies of Ethiopia, the majority of the companies which accounts 98 (62.0%) have below 30 employees. Whereas, 60 (38.0%) of the sample branches have from 31 to 60 employees. With regard to the initial capital of the branch private insurance company category, the highest number of the branches fall under the initial capital group of from 21 to 40 million, which accounts 67 (42.2%) of the total sample branches of the private insurance companies. Accordingly, 47 (30.0%) branches were in the initial capital of below 20 million. In this regard, it can be observed that more than half of the branches in the sample (72.2%) were in below 40 million initial capital when they started their work and from this result we can induce that the majority of the branches in private insurance companies of Ethiopia were at the good status to start their job.

Finally, as shown in table 8, in the current capital level category, the majority of the branch private insurance companies which accounts 60 (37.9%) have current capital above 60 million and next to that 41 (26.0%) branches have from 41 to 60 million current capita. Then it is possible to say more than half of the branches in the sample private insurance companies (63.9%) have current capital of above 40 million. This means that, more than half of the branch private insurance companies in Ethiopia increased their below 40 million initial capital to above 40 million current capital.

4.4.2. The Current Level of Innovation Strategies in Private Insurance Companies

To assess and portraying the existing level of innovation strategies in private insurance companies in Ethiopia, five components of innovation strategies were used and respondents were asked to rate their level of agreement for ten statements for each components of innovation strategies (PCIS, TIS, PDIS and MIS). To this end, the descriptive analysis for the independent variables (innovation strategies) were discussed in the following sections.

The researcher used the mean score measurement of Kothari (2004) for description of the participants mean score as low, average and high. Accordingly, mean score of less than 2.69 is described as low, mean score of between 2.70 and 3.49 is described as an average and mean score of greater than 3.50 is described as high in five point scale.

4.4.2.1. The Current Level of Process Innovation Strategy (PCIS)

Table 9: Descriptive Statistics for PCIS

Code	Item	N	Mean	SD
PCIS1	Our company has determined non value adding activities in delivery related processes	158	2.6709	1.08518
PCIS2	Our company has decreased variable cost in related logistic processes	158	2.9937	1.15376
PCIS3	Our company has increased delivery speed in delivery related logistics processes	158	3.0949	1.12180
PCIS4	Our company adopts advanced real-time process control technology	158	3.1329	1.14605
PCIS5	Our company imports advanced automatic quality restriction equipment and software	158	2.8987	1.14096
PCIS6	Our company has eliminated non value adding	158	2.9177	1.14528

	activities in delivery related processes			
PCIS7	Our company has increased output quality in service software	158	3.0063	1.15376
PCIS8	Our company has decreases variable cost components in service processes	158	3.0633	1.08659
PCIS9	Our company imports advanced programmable equipment	158	3.0063	1.18104
PCIS10	Our company eliminates non value adding activities in service processes	158	2.9367	1.04475
	Overall PCIS	158	2.9722	0.74337

Source: Own survey, computed in SPSS, 2020

As shown in table 9, based on the statistical data and managers' evaluation, the overall implementation of PCIS mean score and SD in the sample branches of private insurance companies of Ethiopia was 2.97 and 0.74 respectively, and it was around the midpoint. When we see the individual items, the items which scored relatively high mean values in the branches were 'Our company adopts advanced real-time process control technology' with mean score of 3.13 and SD of 1.15 and 'Our company has increased delivery speed in delivery related logistics processes' with mean score of 3.10 and SD of 1.12. But the only item which score low mean in the sample private insurance companies was 'Our company has determined non value adding activities in delivery related processes' with mean score of 2.67 and SD of 1.09. Therefore, the implementation of process innovation strategy in private insurance companies was good.

4.4.2.2. The Current Level of Technological Innovation Strategy (TIS)

Table 10: Descriptive Statistics for TIS

Code	Item	N	Mean	SD
TIS1	Our company automate routine tasks using new technologies	158	3.0570	1.02357
TIS2	Our company adopt new systems such as Enterprise Resource Planning	158	3.0886	1.23319
TIS3	Our company increase investment in innovative technology	158	3.2405	1.24374
TIS4	Our company adopt new innovative technology	158	2.9620	1.19386
TIS5	Our company support process innovation by adopting technologies	158	3.2468	1.09827

TIS6	Our company allocate resources to sharing technology	158	3.3544	1.00366
TIS7	Our company considers the use of technology as a driver of business growth	158	3.3797	1.08027
TIS8	Our company guides the evaluation of new ideas by technological objectives	158	3.4304	1.18034
TIS9	Our company work towards specific technological goals or objectives	158	3.3861	1.08683
TIS10	Our company has the same or similar technologies to the competitors	158	3.3228	1.11885
	Overall TIS	158	3.2468	0.75820

Source: Own survey, computed in SPSS, 2020

As shown in table 10, based on the statistical data and managers' evaluation, the overall implementation of TIS mean score and SD in the sample branches of private insurance companies of Ethiopia was 3.25 and 0.76 respectively, and it was around the midpoint. When we see the individual items, the items which scored relatively high mean values in the branches were 'Our company guides the evaluation of new ideas by technological objectives' with mean score of 3.43 and SD of 1.18; 'Our company work towards specific technological goals or objectives' with mean score of 3.39 and SD of 1.09; and 'Our company considers the use of technology as a driver of business growth' with mean score of 3.38 and SD of 1.08. The only item which score relatively low mean in the sample private insurance companies was 'Our company adopt new innovative technology' with mean score of 2.96 and SD of 1.19 all the items in technological innovation strategy scored mean value in the average. Therefore, the implementation of technological innovation strategy in private insurance companies was very good.

4.4.2.3. The Current Level of Product Innovation Strategy (PDIS)

Table 11: Descriptive Statistics for PDIS

Code	Item	N	Mean	SD
PDIS1	Our company develops new products with technical specifications	158	3.1835	1.07572
PDIS2	Our company increases manufacturing quality materials of current products	158	3.2848	1.26738
PDIS3	Our company develops newness for current products	158	3.4304	1.19642

	leading to improved ease of use for customers			
PDIS4	Our company develops new products with materials totally differing from the current ones	158	3.3987	1.18343
PDIS5	Our company designs product functionalities totally differing from the current ones	158	3.3291	1.12552
PDIS6	Our company decreases manufacturing cost materials of current products	158	3.1709	1.08371
PDIS7	Our company develops new products with components totally differing from current ones	158	3.2532	1.19945
PDIS8	Our company decreases manufacturing costs in components of current products	158	3.1013	1.09539
PDIS9	Our company increases manufacturing quality in components of current products	158	3.2722	1.10384
PDIS10	Our company develops new products for to improve customer satisfaction	158	3.2658	1.11970
	Overall PDIS	158	3.2690	0.73993

Source: Own survey, computed in SPSS, 2020

Table 11 illustrates that the overall implementation of PDIS mean score in the sample branches of private insurance companies of Ethiopia was 3.27 and SD was 0.74 and it is around the midpoint. When we see individual items of PDIS, the highest scored items, which fall at the highest point of the midpoint in the sample branches of private insurance companies of Ethiopia were ‘Our company develops newness for current products leading to improved ease of use for customers’ mean of 3.43 and SD of 1.20; and ‘Our company develops new products with materials totally differing from the current ones’ mean of 3.40 and SD of 1.18. Generally, the above table shows that, in the sample branches of private insurance companies of Ethiopia, all the items in the implementation of PDIS score an average level of mean values. Therefore, product innovation strategy in the private insurance companies was excellent in its implementation.

4.4.2.4. The Current Level of Marketing Innovation Strategy (MIS)

Table 12: Descriptive Statistics for MIS

Code	Item	N	Mean	SD
MIS1	Our company formulate market innovation to	158	3.2278	1.07014

	increases employee knowledge and skills			
MIS2	Our company adopt market innovation and way of operation as the most suitable for delighting our customers	158	3.2532	1.16169
MIS3	Our company work to customer satisfaction as part of market innovation strategy	158	3.4367	1.06737
MIS4	Our company improve service quality as one of the key objectives of market innovation strategy	158	3.3797	1.11508
MIS5	Our company has internal cooperation as an important part of market innovation strategy	158	3.3608	1.19029
MIS6	Our company competitiveness has increased greatly since the introduction of market innovation	158	3.4747	1.19286
MIS7	Our company adopt market innovation strategy that helped the company to achieve its strategic goals	158	3.4747	1.19286
MIS8	Our company adopt market innovation that has enhanced organizational performance greatly	158	3.3608	1.11857
MIS9	Our company improve administration routines by considering it as part of market innovation strategy	158	3.3544	1.12344
MIS10	Our company increase marketing aggressiveness as an important part of market innovation	158	3.3987	1.15621
	Overall MIS	158	3.3722	0.72004

Source: Own survey, computed in SPSS, 2020

As table 12 indicates, all the MIS items were fall in the highest point of an average in the sample branches of private insurance companies of Ethiopia. From the items, ‘Our company competitiveness has increased greatly since the introduction of market innovation’ with mean of 3.48 and SD of 1.19; and ‘Our company adopt market innovation strategy that helped the company to achieve its strategic goals’ with mean of 3.48 and SD of 1.19 were scored relatively the highest mean values in the companies. The item ‘Our company formulate market innovation to increases employee knowledge and skills’ was relatively with the lowest mean value with mean of 3.23 and SD of 1.07. The overall implementation of MIS in the sample private insurance companies of Ethiopia was scored mean of 3.37 and SD of 0.72. Based on these data, the effective use of marketing innovation strategy was not a challenge for private insurance companies in Ethiopia.

4.4.3. The Current Level of Overall Innovation Strategy in Private Insurance Companies

Table 13: Descriptive Statistics for Overall Innovation Strategy (IS)

Item	N	Mean	SD
PCIS	158	2.9722	0.74337
TIS	158	3.2468	0.75820
PDIS	158	3.2690	0.73993
MIS	158	3.3722	0.72004
Overall IS	158	3.2150	0.50582

Source: Own survey, computed in SPSS, 2020

The summary of the overall implementation of IS and respondents' score for each components of IS in the sample branches of private insurance companies of Ethiopia were indicated in table 13. In this regard in the insurance companies, MIS with mean of 3.37 and SD of 0.72; PDIS with mean of 3.27 and SD of 0.74; and TIS with mean of 3.25 and SD of 0.76 were scored at the highest value in the average. Accordingly, PCIS with mean of 2.97 and SD of 0.74 was scored at the lowest value in the average. Furthermore, the overall implementation of IS in the sample branches of private insurance companies of Ethiopia scored mean of 3.22 and SD of 0.51 which is at a good point in the average.

4.4.4. The Current Level of Firm Performance in Private Insurance Companies

To assess the current level of firm performance in the sample branches of private insurance companies of Ethiopia, eight items of firm performance scale, which are adopted from Sohn, et al. (2007), were employed for this study, which can possibly determine whether the firm performance was related to and influenced by implementation of innovation strategies; and respondents were asked to rate the performance of their insurance company by considering the performance of the last two years. To this end, the descriptive analysis for the dependent variable (firm performance) was discussed in the following section.

Table 14: Descriptive Statistics for Firm Performance (FP)

Code	Item	N	Mean	SD
FP1	The sales level of our company is increasing from year to year	158	3.6962	1.10994
FP2	The company has increased the timely delivery of services to its customers from year to year	158	3.7342	1.15884
FP3	The overall profitability of the company has increased over the last year	158	3.6899	1.12245
FP4	There is an increase in capacity building of our company	158	3.5696	1.17494
FP5	There is enhanced organization's customer satisfaction	158	3.4430	1.16473
FP6	There is a significant level of reduction in operational cost	158	3.4747	1.04485
FP7	Our company has enhanced proper resource utilization over the recent years	158	3.4810	1.09266
FP8	There is increased efficiency in organization operation	158	3.4620	1.11525
	Overall FP	158	3.5688	.76336

Source: Own survey, computed in SPSS, 2020

The result in table 14 shows that the overall level of firm performance related to and influenced by the implementation of innovation strategies in the sample branch private insurance companies, was at the high level with mean of 3.57 and SD of 0.76. The table further illustrate that the items with highest score from firm performance scale in the companies were ‘The company has increased the timely delivery of services to its customers from year to year’ with mean of 3.73 and SD of 1.16; ‘The sales level of our company is increasing from year to year’ with mean of 3.70 and SD of 1.11; ‘The overall profitability of the company has increased over the last year’ with mean of 3.69 and SD of 1.12; and ‘There is an increase in capacity building of our company’ with mean of 3.57 and SD of 1.18. The other items scored in the midpoint in the companies. Therefore, it may be concluded that the overall level of firm performance related to and influenced by the implementation of innovation strategies in the sample branch private insurance companies was highly above the average and it was excellent.

4.5. Inferential Analysis

The subsequent section presented and discussed the relationship between IS and insurance FP in private insurance companies of Ethiopia. In this regard, the section covered the direction and magnitude of the relationship between the overall implementation of innovation strategy and insurance firm performance as well as the relationship between the implementation of components of innovation strategies and firm performance these companies. Furthermore, the influence of IS and its components on FP was also examined in the following section.

Accordingly, inferential statistics (Pearson's Product Moment Correlation Coefficient and Linear Regression) were used to examine the relationship of those variables under study; and strength of correlation were interpreted through suggestion of Evans, et al. (2002) in the following pattern:

0.00 – 0.19 “Very Weak”	0.40 – 0.59 “Moderate”	0.80 – 1.00 “Very Strong”
0.20 – 0.39 “Weak”	0.60 – 0.79 “Strong”	

4.5.1. Pearson's Product Moment Correlation Coefficient

4.5.1.1. The Relation between the Implementation of Overall IS and FP

Table 15: The Relation between Overall IS and FP

		IS	FP
IS	Pearson Correlation	1	.341**
	Sig. (2-tailed)		.000
FP	Pearson Correlation	.341**	1
	Sig. (2-tailed)	.000	

** . Correlation is significant at the 0.01 level (2-tailed), N = 158.

Source: Own survey, computed in SPSS, 2020

The above table (table 15) illustrate the relationship between the overall implementation of IS and FP in the private insurance companies of Ethiopia. Based on these correlations between the main research variables (innovation strategies and firm performance), there is statistically significant relation between overall implementation of IS and FP (with weak and positive influence of overall implementation of IS on FP) in the sample branches of private insurance companies of Ethiopia ($r = 0.341$, $p < 0.01$). This implies that, there is a weak implementation of overall innovation strategy by lack of a sound innovation management program and high cost for the implementing innovative ideas in private insurance companies of Ethiopia.

Additionally, to investigate the relationship between IS and FP in more detail manner, the researcher also run correlation analysis to see the relationship between the implementation of components of IS (four components of IS) and FP in private insurance companies of Ethiopia and presented as follows.

4.5.1.2. The Relation between Components of IS and FP

Table 16: The Relation between components of IS and FP

		PCIS	TIS	PDIS	MIS	FP
PCIS	Pearson Correlation	1	.484**	.328**	.166*	.116
	Sig. (2-tailed)		.000	.000	.037	.147
TIS	Pearson Correlation		1	.417**	.166*	.133
	Sig. (2-tailed)			.000	.037	.095
PDIS	Pearson Correlation			1	.157*	.067
	Sig. (2-tailed)				.048	.402
MIS	Pearson Correlation				1	.629**
	Sig. (2-tailed)					.000
FP	Pearson Correlation					1
	Sig. (2-tailed)					

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

* . Correlation is significant at the 0.05 level (2-tailed), N = 158.

Source: Own survey, computed in SPSS, 2020

As shown in the above table (table 16), the correlation coefficient was strong and represents statistically significant positive relationship between MIS and FP in private insurance companies of Ethiopia ($r = 0.629$, $p < 0.01$). In this regard, the companies' effort in implementing and use of marketing innovation strategy; towards managing innovative strategy focusing on all aspects of the business operations ranging from customer care technological advancement to the better products and services in the market was strong and positive relation with the FP in private insurance companies of Ethiopia.

But in the other components of IS, there was no statistically significant relation between PCIS and FP ($r = 0.116$, $p = 0.147$), between TIS and FP ($r = 0.133$, $p = 0.095$), and between PDIS and FP ($r = 0.067$, $p = 0.402$) in the private insurance companies of Ethiopia. These shows that, the companies' effort in properly managing and implementing process, technological and product

innovation strategies were not significantly related with the performance of the insurance companies and not significantly influence the performance of the private insurance companies in Ethiopia.

4.5.2. Regression Analysis

4.5.2.1. Simple Linear Regression Analysis

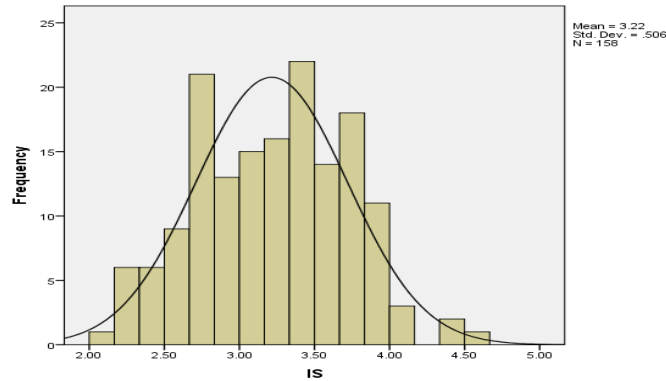
Assumptions of Simple Linear Regression Analysis

According to Field (2009), to run a simple linear regression, checking critical assumptions is essential and it is helpful to draw conclusion about the population under study. In this regard, normality of both predictor and predicted variables and the linearity of relationship between the independent and dependent variables were checked, and the results presented as follows.

Normality

According to Field (2009), the assumption of normality is important in research using regression (or general linear models) and helpful to generalize the results of the analysis beyond the sample collected. Among several ways to check for the normality assumptions for simple linear regression analysis, it is advisable to inspect to see if a distribution is normal through histogram and a P-P plot (probability-probability plot). Therefore, to establish the validity of these assumptions, the researcher also checks for the normality through histogram and P-P plot of private insurance companies of Ethiopia as follows.

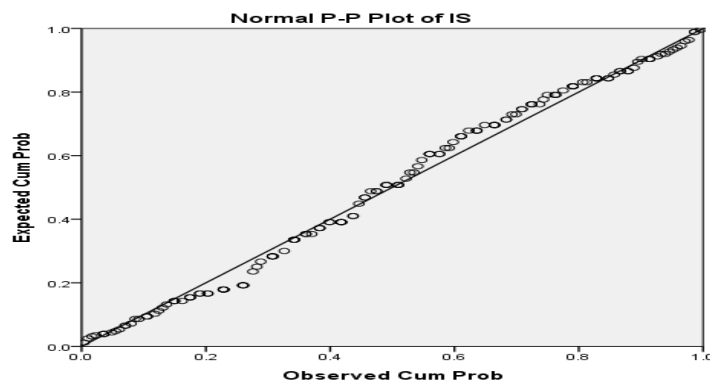
Figure 2: Histogram for implementation of IS in private insurance companies



Source: Own survey, computed in SPSS, 2020

As Garson (2012) and Field (2009) noted, normal distribution take the form of a symmetric bell shaped curve. Accordingly, as we observed from the above figure (figure 2), the histogram (for the independent variable implementation of IS) look like a normal distribution (bell-shaped curve) and the distribution was roughly normal. Moreover, the histogram (the curve) was roughly skewed (symmetrical) to the normal in the sample branches of private insurance companies of Ethiopia. Therefore, we can conclude that, we have good model for the data; and possibly, we can infer to the population in private insurance companies of Ethiopia.

Figure 3: Normally Distributed Error for implementation of IS in private insurance companies

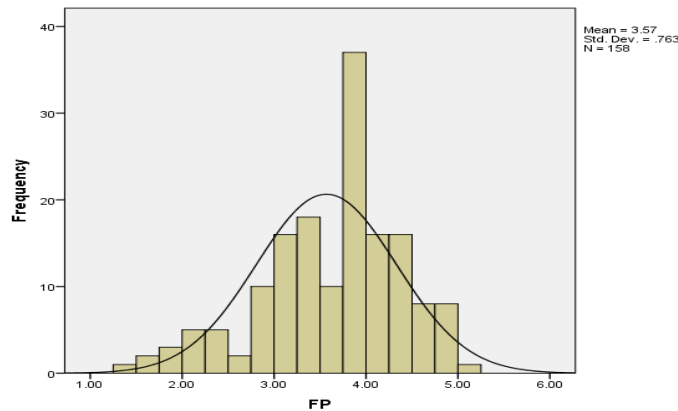


Source: Own survey, computed in SPSS, 2020

The normal probability plot also shows that almost there is small deviations from normality in the sample branches of private insurance companies of Ethiopia (in the independent variable implementation of IS). The straight line in this plot represents a normal distribution, and the points represent the observed residuals in the companies. Therefore, in a perfectly normally distributed data set, all points will lie on the line (Field, 2009). Likewise, as we seen in figure 3

in the branches of private insurance companies of Ethiopia, the dots are closely plotted to the straight line, which indicate a small deviation from normality and there are no extreme cases observed. Therefore, the assumption of simple linear regression have been met and we can possibly assume that the model is accurate and can probably generalize to the population in the companies.

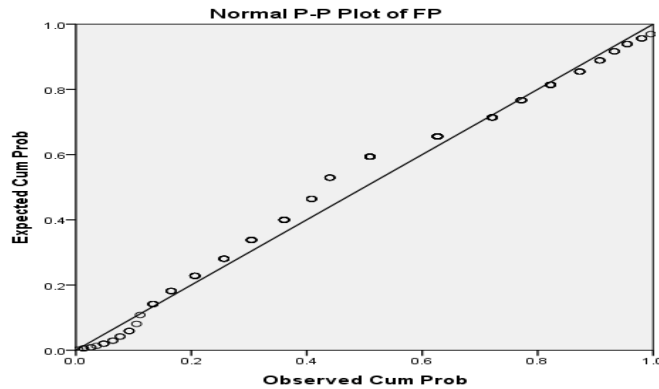
Figure 4: Histogram for FP in private insurance companies



Source: Own survey, computed in SPSS, 2020

As Garson (2012) and Field (2009) noted, normal distribution take the form of a symmetric bell shaped curve. Accordingly, as we observed from the above figure (figure 4), the histogram (for the dependent variable FP) look like a normal distribution (bell-shaped curve) and the distribution was roughly normal. Moreover, the histogram (the curve) was roughly skewed (symmetrical) in the branches of private insurance companies of Ethiopia. Therefore, we can conclude that, we have good model for the data; and possibly, we can infer to the population in private insurance companies of Ethiopia.

Figure 5: Normally Distributed Error for FP in private insurance companies



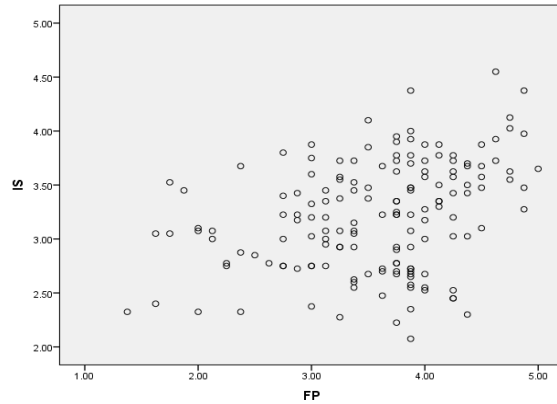
Source: Own survey, computed in SPSS, 2020

The normal probability plot also shows that there is small deviations from normality in the branches of private insurance companies of Ethiopia (in the dependent variable FP). The straight line in this plot represents a normal distribution, and the points represent the observed residuals in the companies. Therefore, in a perfectly normally distributed data set, all points will lie on the line (Field, 2009). Likewise, as we seen in figure 5 in the branches of private insurance companies of Ethiopia, the dots are closely plotted to the straight line, which indicate a small deviation from normality and there are no extreme cases observed. Therefore, the assumption of simple linear regression have been met and we can possibly assume that the model is accurate and can probably generalize to the population in the companies.

Linearity

Since general linear model assume linearity, it is necessary testing for non-linearity. In this regard as Garson (2012) pointed out, simple inspection of scatterplots is a common method for determining if nonlinearity exists in a relationship. Consequently, the researcher run simple scatterplot to see if there is a linear relationship exists between the variables in the private insurance companies of Ethiopia.

Figure 6: Linearity of IS and FP in private insurance companies



Source: Own survey, computed in SPSS, 2020

According to Field (2009), the assumption of linearity assumes the mean values of the outcome variable for each increment of the predictor lie along a straight line. In other words, it is assumed that the relationship we are modelling is a linear one. In this regard, as we observed from the above figure (figure 6), the dots have a shape of straight line in the branches of private insurance companies of Ethiopia. It is also observed that, the dots are scattered at the centre (neither positive nor negative slope) which means, there is a linear relationship exists between the main variables (IS and FP) in the branches of private insurance companies of Ethiopia. Therefore, through our linear model for FP, we can generalize the finding towards the population in the companies.

4.5.2.1.1. Regression Analysis in Implementation of Overall IS and FP

Table 17: (Model Summary) overall implementation of IS as predictor to FP

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.341 ^a	.116	.111	.71995

a. Predictors: (Constant), IS

Source: Own survey, computed in SPSS, 2020

From the above model summary (table 17), it can be seen that R is 0.341 and R square is 0.116. This indicates that only 11.6% of the variance in FP (dependent variable) can be explained by implementation of IS in the sample branches of private insurance companies of Ethiopia (independent variable). The remaining 88.4% of the variance is explained by other variables that are not included in this study.

Table 18: (ANOVA) overall implementation of IS as predictor to FP

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	10.628	1	10.628	20.504	.000 ^b
Residual	80.858	156	.518		
Total	91.486	157			

a. Dependent Variable: FP

b. Predictors: (Constant), IS

Source: Own survey, computed in SPSS, 2020

The F-test result in the ANOVA table (table 18) and the p-value, tests whether the overall regression model is a good predictor and the probability of this result is occurred by chance or not. In this regard, the F-test result in the branches of private insurance companies of Ethiopia is 20.504 with a significance of less than 0.01. This implies that, the probability of these results occurring by chance is less than 0.01. Therefore, a significant amount of FP is influenced by the private insurance companies' IS, which means independent variable (IS) statistically and significantly predict the dependent variable (FP), and it can be concluded as, the overall regression model is significant, $F(1, 156) = 20.504$, $p < 0.01$, $R^2 = 0.116$ in private insurance companies of Ethiopia.

Then, the lower value of the standard error of the estimate and the higher F value evidenced that, the interdependence of the two variables, i.e. IS and FP is significant in the organization. Therefore, it may be concluded as; the implementation of IS influence over FP is significant, where, $p < 0.01$ in private insurance companies of Ethiopia.

Table 19: (Coefficients) overall implementation of IS as predictor to FP

Model	Unstandardized Coe.		Standardized Coe.	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.915	.370		5.181	.000
IS	.514	.114	.341	4.528	.000

a. Dependent Variable: FP

Source: Own survey, computed in SPSS, 2020

Based on the above coefficient table (table 19), Beta-value of 0.341 indicates that there is a direct influence exists between implementation of IS and FP which is statistically significant at 99%

confidence level in private insurance companies of Ethiopia. Moreover, the B value (0.514) in the unstandardized coefficient column, represent that, considering all other factors constant at zero, for every one unit increase on implementation of IS, we expect 0.514 unit increase in FP in private insurance companies of Ethiopia. Thus the regression equation, in this condition, will be:-

$$FP = 1.915 + 0.514IS + 0.71995$$

This implies that, as managers perceive effective implementation of IS in place at private insurance companies of Ethiopia, FP rises significantly. From this discussion, in describing the influence of IS over FP in private insurance companies of Ethiopia, the FP is affected by several factors other than their perception of the implementation of IS in the companies; and it is confirmed in the regression result as 88.4% of the variance in FP is explained by other factors.

4.5.2.2. Multiple Linear Regression Analysis

The above section discussed and presented the influence of overall implementation of IS over FP and it is found that there is an influence relationship between these variables in private insurance companies of Ethiopia. Moreover, it was also evidenced that overall implementation of IS predicts FP significantly in the companies.

On the other hand, after testing for different assumptions, the following section examined influence of components of IS over FP in private insurance companies of Ethiopia; and help us to identify which components of IS have significant unique influence over FP than the others in the private insurance companies.

Assumptions of Multiple Linear Regression Analysis

In conducting multiple regression analysis using regression equation, as suggested by Saunders, et al. (2009), key assumptions should be met. Consequently, to perform the regression analysis involving multiple independent variables, the researcher must check for the variables have linear relationship, the data were normally distributed, homogeneity of variances, and there is no collinearity between independent variables (to determine the separate influence of components of IS).

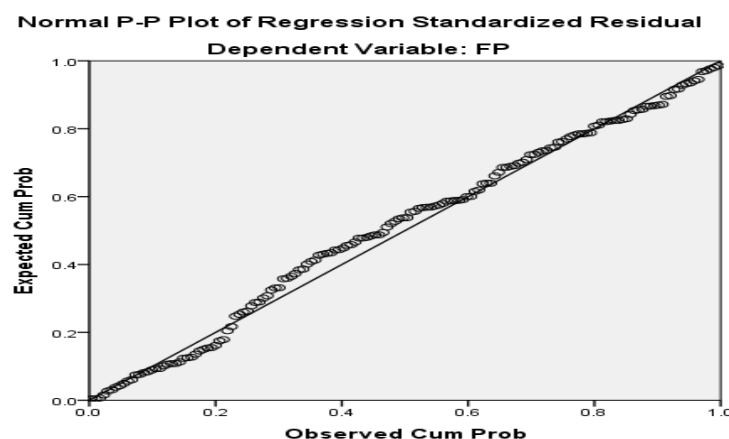
In this regard, the researcher ensured, in the previous sections, that the assumptions of linearity and normality have been met. The remaining assumptions, the assumption of multi collinearity and homogeneity of variances, were presented as follows.

Multi collinearity

In multiple regression analysis, the regression coefficients become less reliable as the degree of correlation between the independent variables increases. Thus, if there is a high degree of correlation between independent variables, we have a problem of what is commonly defined as the problem of multi collinearity (Kothari, 2004).

In this regard, based on the correlation matrix (table 16), the correlation between components of IS ranges from 0.157 to 0.484 and there is a moderate significant relationship between PCIS and TIS ($r = 0.484$, $p < 0.01$), and between TIS and PDIS ($r = 0.417$, $p < 0.01$) in private insurance companies of Ethiopia. And the other components of IS; PCIS and PDIS ($r = 0.328$, $p < 0.01$) have a weak statistically significant relationship in these companies. Furthermore, PCIS and MIS ($r = 0.166$, $p < 0.05$); TIS and MIS ($r = 0.166$, $p < 0.05$) and PDIS and MIS ($r = 0.157$, $p < 0.05$) have a very weak relationship in the private insurance companies of Ethiopia. Therefore, we have no the problem of multi collinearity to determine the separate influence of components of IS on FP in these companies.

Figure 7: Normally Distributed Errors Components of IS and FP



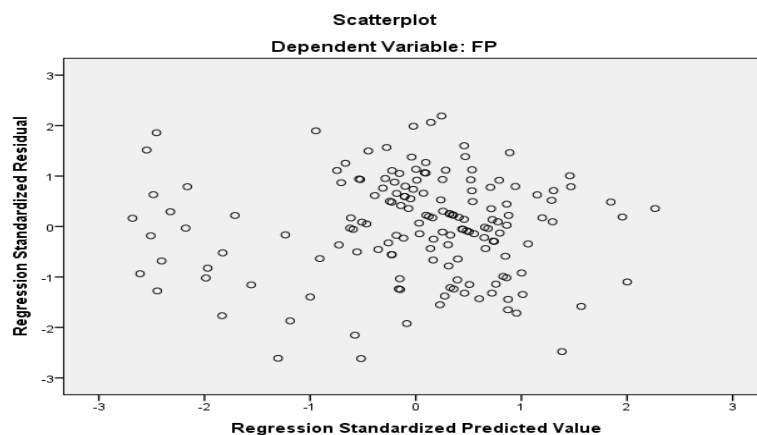
Source: Own survey, computed in SPSS, 2020

The normal probability plot in figure 7 shows that there is a small deviations from normality in the private insurance companies of Ethiopia (in the dependent variable FP). In other words, as we seen in the companies, the dots are closely plotted to the straight line, which indicate a small deviation from normality and there are no extreme cases observed. Therefore, the assumption of multiple linear regression have been met and we can possibly assume that the model is accurate and can probably generalize to the population in the private insurance companies of Ethiopia.

Homoscedasticity

Homoscedasticity is the extent to which the data values for the dependent and independent variables have equal variances, as Saunders, et al. (2009) noted. Based on the explanation by Field (2009), at each level of the predictor variables, the variance of the residual terms should be constant. This just means that the residuals at each level of the predictors should have the same variance, therefore checking for this assumption is helpful for the goodness of the regression model. In this regard, to plot the homoscedasticity analysis, as suggests by Field (2009), the researcher plot the standardized residuals, or errors (ZRESID) on the Y axis and the standardized predicted values of the dependent variable based on the model (ZPRED) on the X axis and the result is presented as follows.

Figure 8: Homoscedasticity for components of IS and FP



Source: Own survey, computed in SPSS, 2020

According to Garson (2012), homoscedasticity help as to check for the relationship under study is the same for the entire range of the dependent variables and lack of homoscedasticity is shown by higher errors (residuals) for some portions of the range, which can be seen on the scatterplot.

In this regard, as Field (2009) describes, the graph of *ZRESID and *ZPRED should look like a random array of dots evenly disseminated around zero, if the assumption of homoscedasticity has to be met. Likewise, as shown in the above figure (figure 8), the points are randomly and evenly dispersed throughout the plot and there are no obvious outliers on this cloud of dots which are spaced around zero in private insurance companies of Ethiopia (for dependent variable FP). Therefore, we can conclude that the assumption of random errors and homoscedasticity have been met in the companies.

4.5.2.2.1. Regression Analysis in Components of IS and FP

Table 20: (Model Summary) PCIS, TIS, PDIS and MIS as predictors to FP

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.631 ^a	.399	.383	.59958

a. Predictors: (Constant), MIS, PDIS, PCIS, TIS

b. Dependent Variable: FP

Source: Own survey, computed in SPSS, 2020

As indicated in the above model summary table (table 20), considering the influence of all predictors (PCIS, TIS, PDIS and MIS), the overall model accounts for 39.9% of the variance in FP in private insurance companies of Ethiopia. This means, 60.1% of the variance on FP is explained by other factors. In simple terms, whether there is expected FP or not, managers experienced 39.9% of the variance explained by the implementation of the four components of IS of the private insurance companies in Ethiopia. In other words, components of IS altogether account 39.9% of the variance in the FP within the private insurance companies of Ethiopia.

Table 21: (ANOVA) PCIS, TIS, PDIS and MIS as predictors to FP

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	36.483	4	9.121	25.371	.000 ^b
Residual	55.003	153	.359		
Total	91.486	157			

a. Dependent Variable: FP

b. Predictors: (Constant), MIS, PDIS, PCIS, TIS

Source: Own survey, computed in SPSS, 2020

The above ANOVA table (table 21), help us to make sure the above model (on model summary table 20) is evidenced that the model is statistically predictor of FP because the p value is less than 0.01 in private insurance companies of Ethiopia. Therefore, a significant amount of FP is influenced by the companies' implementation of components of IS which constitutes PCIS, TIS, PDIS and MIS. Thus, components of IS found statistically and significantly predict FP and it can be concluded as, the overall regression model is significant, $F(4, 153) = 25.371$, $p < 0.01$, $R^2 = 0.399$, in private insurance companies of Ethiopia.

Table 22: (Coefficients) PCIS, TIS, PDIS and MIS as predictors to FP

Model	Unstandardized Coe.		Standardized Coe.	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.328	.317		4.184	.000
1 PCIS	.006	.075	.006	.080	.936
TIS	.049	.076	.048	.640	.523
PDIS	-.056	.072	-.054	-.768	.444
MIS	.666	.068	.628	9.803	.000

a. Dependent Variable: FP

Source: Own survey, computed in SPSS, 2020

Based on the statistical data obtained from the above model summary table (table 20), both components of IS together explain about 39.9% variance in FP in private insurance companies of Ethiopia and the regression equation are:-

$$FP = 1.328 + 0.006(PCIS) + 0.049(TIS) - 0.056(PDIS) + 0.666(MIS) + 0.59958$$

From this influence exerted on FP in private insurance companies of Ethiopia, MIS has a unique statistical contribution for the outcome with Beta Value of 0.666 ($p = 0.000$). With this statistical data, and the standardized beta value, (which has been converted to the same scale), we can conclude as, MIS has a unique and better contribution than the other components of IS to explain the change in FP, since 0.666 is larger than the other beta values. Moreover, from the above statistical result we learn that, given the other variables constant, one unit increase in MIS will increase 0.666 units of FP in private insurance companies of Ethiopia. Therefore, we can induce from the above result that, an effective implementation and management of innovative marketing strategy influence the performance of the private insurance companies in Ethiopia significantly.

But (from the result in table 22) the other components of IS have no significant contribution and influence on the performance of private insurance companies in Ethiopia. Therefore, we can induce from these result that, an effective implementation and management of process, technological and product innovation strategies do not influence the performance of the private insurance companies in Ethiopia significantly.

4.6. Testing the Proposed Hypotheses

In this study four hypotheses were formulated. The statistical tests run for these hypotheses were briefly discussed below.

H₁: Process innovation strategy has a significant influence on the performance of private insurance firm in Ethiopia.

To validate this hypothesis based on the correlation and regression model summary, ANOVA and coefficients results (table 16, 20, 21 and 22) and justifications, the implementation of component of IS, process innovation strategy (PCIS) has no significant influence on FP (with a very weak and positive, $r = 0.116$, $p = 0.936$ and B value is 0.006) in private insurance companies of Ethiopia. This can be interpreted the process innovation strategy has no significant influence on the performance of private insurance companies in Ethiopia (a very weak and positive). Therefore, H_1 is rejected.

H₂: Technological innovation strategy has a significant influence on the performance of private insurance firm in Ethiopia.

To validate hypothesis two based on the correlation and regression model summary, ANOVA and coefficients results (table 16, 20, 21 and 22) and justifications, the implementation of component of IS, technological innovation strategy (TIS) has no significant influence on FP (with a very weak and positive, $r = 0.133$, $p = 0.523$ and B value is 0.049) in private insurance companies of Ethiopia. This can be interpreted the technological innovation strategy has no significant influence on the performance of private insurance companies in Ethiopia (a very weak and positive). Therefore, H_2 is rejected.

H₃: Product innovation strategy has a significant influence on the performance of private insurance firm in Ethiopia.

To validate this hypothesis based on the correlation and regression model summary, ANOVA and coefficients results (table 16, 20, 21 and 22) and justifications, the implementation of component of IS, product innovation strategy (PDIS) has no significant influence on FP (with a very weak and negative, $r = 0.067$, $p = 0.444$ and B value is -0.056) in private insurance companies of Ethiopia. This can be interpreted the product innovation strategy has no significant influence on the performance of private insurance companies in Ethiopia (a very weak and negative). Therefore, H_3 is rejected.

H_4 : Marketing innovation strategy has no significance influence on the performance of private insurance firm in Ethiopia.

To validate hypothesis four based on the correlation and regression model summary, ANOVA and coefficients results (table 16, 20, 21 and 22) and justifications, the implementation of component of IS, marketing innovation strategy (MIS) has a significant influence on FP (with strong and positive, $r = 0.629$, $p = 0.000$ and B value is 0.666) in private insurance companies of Ethiopia. This can be interpreted as, “Marketing innovation strategy has a significant influence on the performance of private insurance companies in Ethiopia (a strong and positive)”. Therefore, H_4 is accepted.

4.7. Summary of the Hypotheses Test

The overall result of the hypotheses test was indicated in the table below.

Table 23: Summary of the Overall Outcome

Hypothesis	Result	Reason
H_1 : Process innovation strategy has a significant influence on the performance of private insurance firm in Ethiopia.	Rejected	$r = 0.116$ $p = 0.936$ $\beta = 0.006$
H_2 : Technological innovation strategy has a significant influence on the performance of private insurance firm in Ethiopia.	Rejected	$r = 0.133$ $p = 0.523$ $\beta = 0.049$
H_3 : Product innovation strategy has a significant influence on the performance of private insurance firm in Ethiopia.	Rejected	$r = 0.067$ $p = 0.444$ $\beta = -0.056$
H_4 : Marketing innovation strategy has a significant influence on		$r = 0.629$

the performance of private insurance firm in Ethiopia.	Accepted	p = 0.000 β = 0.666
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Source: Own survey, computed in SPSS, 2020

Chapter Five

5. Summary, Conclusion and Recommendation

5.1. Introduction

A summary of major findings, conclusions, recommendations and suggestions for further studies were presented in this chapter. Conclusions were drawn from the major findings and review of the literature. Implication and recommendations for further studies were included.

5.2. Summary of Major Findings

In this study, the researcher was interested in assessing the current implementation of innovation strategies and investigating its influence on firm performance at private insurance companies of Ethiopia. Accordingly, to meet the research objective, the researcher collected data from sample respondents; and analyzed the collected data through descriptive and inferential statistics. By doing so, the following major findings were obtained.

The demographic characteristics of the respondents indicate that, majority of the managers (80.4%) were male and the remaining (19.6%) were female in the sample branches of private insurance companies of Ethiopia. With regard to age, the highest share of the managers, (53.1%), fall under the age group of 36 to 45 years in the companies. Moreover, (26.6%) of the managers are 46 and above years, which means more than half of the population in the sample (79.7%) in the companies were at the medium age group. The study also found that, academically, the highest number of managers, who account (69.0%) hold first degree and (31.0%) hold second degree and above in private insurance companies of Ethiopia. With regard to work experience in insurance companies in general, more than half of the managers (79.1%) were experienced in any insurance companies for greater than 10 years. Moreover, in the current insurance company, the managers (70.3%) have experience of more than 10 years. And also, more than half of the managers (81.6%) were experienced in the current position in insurance company for more than 6 years.

The demographic characteristics of the insurance companies indicate that, majority of the sampled branches of private insurance companies (73.4%) were worked for more than 15 years and (26.6%) were worked from 11 to 15 years in Ethiopia. This implies that, (100.0%) of the sampled branches of the companies were worked for more than 11 years in Ethiopia. With regard to the number of employees that the companies have, majority of the insurance companies which accounts (62.0%) have below 30 employees and (38.0%) have from 31 to 60 employees. Moreover, it is found that more than half of the branches in the sample (72.2%) were in below 40 million initial capital when they started their work and now (63.9%) of the sampled branches of the private insurance companies have current capital of above 40 million.

The descriptive analysis result revealed that, mean score for components of IS ranges between 2.97 and 3.37 in private insurance companies of Ethiopia, which fall around the moderate mean. Accordingly, the highest mean score ($M = 3.37$, $SD = 0.72$) attributed to MIS and the lowest mean score ($M = 2.97$, $SD = 0.74$) is for PCIS, which revealed that, from the four components of IS, 'MIS' was implemented better and 'PCIS' was implemented at the least in the insurance companies. But the overall implementation of IS ($M = 3.22$, $SD = 0.51$) was good in moderate mean value.

The descriptive statistics employed for assessing the current level of FP in private insurance companies of Ethiopia also revealed that, the FP ($M = 3.57$, $SD = 0.76$) was in the highest mean value in the companies. And also, it is found that from the items of FP, the item 'The company has increased the timely delivery of services to its customers from year to year' with mean of 3.73 ($SD = 1.16$) has the highest mean score.

In investigating the relationship between overall implementation of IS and FP, the correlation coefficient result evidenced that, a positive and statistically significant relationship was found in private insurance companies of Ethiopia with ($r = 0.341$, $p < 0.01$) between the two major variables mentioned (overall implementation of IS and FP). This means that, overall implementation of IS has statistically significant positive relationship with FP in the companies.

In examining the relationship between components of IS and FP in private insurance companies of Ethiopia, a positive and statistically significant relationship was found between MIS and FP ($r = 0.629$, $p < 0.01$). And also there was no statistically significant relation between PCIS and FP ($r = 0.116$, $p = 0.147$), between TIS and FP ($r = 0.133$, $p = 0.095$), and between PDIS and FP ($r =$

0.067, $p = 0.402$) in private insurance companies of Ethiopia. Accordingly, it is found that, MIS is the highest correlated item in the implementation of IS with FP in the companies. This means that, the high level of implementing innovative marketing strategy is strongly related to FP in private insurance companies of Ethiopia.

In investigating the influence of overall implementation of IS over FP, the simple linear regression analysis evidenced that, only 11.6% the variation in FP in private insurance companies of Ethiopia is explained by its overall implementation of IS, at Beta value of 0.341 ($p < 0.01$). And overall implementation of IS has a statistically significance, weak and positive influence on FP in the companies. Furthermore, the multiple linear regressions also revealed that, 39.9% the variation in FP in private insurance companies of Ethiopia is explained by the implementation of the four components of IS. And among the four components in the implementation of IS, MIS at Beta value of 0.666 ($p < 0.01$) has statistically significant influence on the variation in FP in the companies. In the same way, PCIS, TIS and PDIS have no statistically significant influence on the variation in FP in private insurance companies of Ethiopia.

5.3. Conclusion

The aim of this study was two dimensional; assessing the implementation of innovation strategy investigating its influence on firm performance in private insurance companies of Ethiopia. In the mean-time, the researcher raised and addressed specific research questions, which are: - ‘What is the influence of innovation strategy on the firm performance in private insurance companies of Ethiopia?’, and ‘What are the influences of components of innovation strategies (PCIS, TIS, PDIS and MIS) on firm performance in private insurance companies of Ethiopia?’ Accordingly, at the centre of these enquiries, the result is discussed in unit four under each sub headings; and it is clear that, the research objectives of this study have been met and the research questions have been answered. Thus, based on the analysis, the following conclusions were drawn.

Among the four components of innovation strategies, the marketing aspect of innovation strategy is ranked first in private insurance companies of Ethiopia. On this component of innovation strategy the study also draws conclusion that, even though; the companies’ competitiveness has increased greatly since they introduce marketing innovation strategy and they adopt it in the way

that helped them to achieve their strategic goals; majority of the companies slightly implement the formulation of it to increase employee knowledge including their skills. And also the companies adopt and operate marketing innovation strategy in a slightly suitable way for delighting of their customers.

From the four components of innovation strategies, the product aspect of innovation strategy is ranked next to marketing innovation strategy in the private insurance companies of Ethiopia. On this component of innovation strategy the study also draws conclusion that, even though; the companies currently develop new products leading to improved ease of use for customers and with materials totally differing from the current ones; they do not decrease manufacturing costs in materials and components of current products.

Furthermore, from the four components of innovation strategy, the technology aspect of innovation strategy is ranked in the third place next to product innovation strategy in the private insurance companies of Ethiopia. On this component of innovation strategy, the companies are working towards specific technological goals and objectives and they guide the evaluation of new ideas by these goals and objectives. But they have to effectively adopt new innovative technology and automate routine tasks using new technologies.

On the process aspect of innovation strategy which is ranked in the last place next to technological innovation strategy in the private insurance companies of Ethiopia, the companies adopt advanced real-time process control technology and they increased delivery speed in delivery related logistics processes. But they have to determine non value adding activities in delivery related processes and they have to import advanced automatic quality restriction equipment and software.

When we are looking to the level of firm performance in private insurance companies of Ethiopia it is at the high level. On the performance of the insurance companies the study draws conclusion that, the companies had increased the timely delivery of services to their customers from year to year and they increase their sales level. And also, the overall profitability of the companies had increased over the last year in line with an increase in capacity building of the companies. But they do not effectively enhance their customer satisfaction by increasing efficiency in the companies operation, and they do not effectively in a significant level of reduction in operational cost by enhancing the proper resource utilization over the recent years.

This study also evidenced through correlation and regression analysis that, private insurance companies in Ethiopia make effort to implement overall innovation strategy weakly, its aspiration for the firm performance. The study also found that, there is statically significant contribution of implementation of overall innovation strategy on the firm performance in the insurance companies. Furthermore, there is a moderate positive influence of the implementation of overall innovation strategy on firm performance in the companies. Hence, high level of firm performance, in private insurance companies of Ethiopia, is not totally affected by its implementation of innovation strategy. Thus, it implies that, the performance of the firm in the companies is also due to another factors other than implementation of innovation strategy.

Finally, from the correlation and regression analysis, the influence exerted on firm performance in private insurance companies of Ethiopia by marketing innovation strategy has statistically significance contribution. That means marketing innovation strategy has a statistically significance influence on firm performance (strong and positive) in private insurance companies of Ethiopia. Moreover, the other components of innovation strategy have no statistical significance influence on firm performance in these companies. Thus, this implies that, firm performance in the companies is not influenced by other components of innovation strategy.

5.4. Recommendations

Based on the conclusion drawn from the study, and the established research problem, the research required to forward realistic and applicable recommendations. Accordingly, the following recommendations were suggested by the researcher.

- ❖ The private insurance companies should give more emphasis on an effective implementation and management of innovative marketing strategy since it has significant influence on the performance of the private insurance companies in Ethiopia.
- ❖ The private insurance companies should take immediate steps to improve innovation by critically assessing current innovation capabilities and performance, and they should create an enable environment that will enhance innovations in the companies so that full benefits of innovation strategies may be realized. The managers in the companies should further embrace the adoption of innovation strategy to realize higher performance and to increase number of customers for the business to grow further.

- ❖ The private insurance companies should also strive to ensure and fully implement the formulation of marketing innovation strategy to increase employee knowledge including their skills. And also the companies should adopt and operate marketing innovation strategy in a suitable way for delighting of their customers.
- ❖ The private insurance companies should effectively implement product innovation strategy by decreasing manufacturing costs in materials and components of current products. This may increase the profitability of the insurance companies.
- ❖ The companies should also ensure that they adapt the new technology in order to cope with the fast changing technology. Technology innovation encourages ease of flow of information and fast delivery to the intended person. For the efficient adoption of innovation strategy, there should be reliable infrastructure and enough financial resource. By effectively adopt new innovative technology they should automate routine tasks using new technologies.
- ❖ To introduce new products and to reduce production costs, the private insurance companies should improve their process by implementing innovative process strategy. This will help them effectively determine non value adding activities in delivery related processes and to import advanced automatic quality restriction equipment and software.
- ❖ The private insurance companies should increase their performance by effectively implement innovation strategy. This will help them to effectively enhance their customer satisfaction by increasing efficiency in the companies operation and to come to the significant level of reduction in operational cost by enhancing the proper resource utilization.

Finally, the researcher strongly recommended that the private insurance companies should act upon giving attention to other factors than the implementation of innovation strategies to increase the level of firm performance in the companies.

5.5. Suggestions for Further Studies

In studying the implementation of innovation strategy and its influence on firm performance in private insurance companies of Ethiopia, the researcher addressed the stated objective by employing several statistical methods and strictly following the research methodology. Hence, this study addressed the research problems, draws conclusion and forward practical

recommendations. In addition to this, the researcher believed that, there are issues remain uncovered in this study due to the scope limitation and need to be addressed in future studies to add broad insight in to the subject, since it is a new phenomenon. Thus, the following points are taken as limitations of this study and future research directions.

- This study only encompasses four components of innovation strategies, which are widely used in the literature and in actual practice, but to make full picture of innovation strategy, future researchers may include additional components of innovation strategies, such as organizational innovation strategy, stimulus innovation strategy, promotion innovation strategy and pricing innovation strategy in their researches.
- The study also limits itself on the practice of private insurance companies of Ethiopia, towards their implementation of innovation strategy, and the conclusion and recommendations remains within the companies. In this regard, to make the conclusion and recommendation more wide and applicable for two or more organizations, future researches may conduct the research in industry wide or nationwide by increasing the sample size.
- This research employed only quantitative research method and considers only managers, accordingly, future researchers may employ mixed approach (qualitative and quantitative) in their data type; by including other employees say and document review.
- This research encompasses all managers within the branches of private insurance companies in Addis Ababa, since there is no identification of strategic job positions that are vital for the firm performance objective achievement. In this regard, future researches may include and focus on employees who related directly to the firm performance of the companies job positions and excluded employees working on the other job positions, if there is differentiation in job positions.
- Finally, as indicated in the literature, there is lack of theoretical grounds and models in conceptualizing innovation strategy and its relationship with other variables. In this regard, researches should be conducted aiming at model specification and theory development. To this end, future researches should consider, specifying firm performance architectures for different innovation strategies dimensions based on industry, business strategy, business nature, and sector.

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Appendices

Questionnaire

Addis Ababa University

College of Business and Economics

Department of Masters of Business Administration (MBA)

Survey Questionnaire for a Master's Thesis conducted on the Influence of Innovation Strategies on the Performance of Private Insurance Firms in Ethiopia.

Dear respondents,

My name is Afomiya Tsegaye and I am one of the students of Master of Business Administration in Management (MBA) in Addis Ababa University College of Business and Economics. This research is part of my study and conducted for purely academic purpose. All the information collected through the questionnaire will be used only for contribution to knowledge and will be kept secret or confidential.

To this end, I kindly request you to respond for all the given statements otherwise incomplete responses will not fulfill my requirements and your response is paramount important to me. Therefore, your genuine, honest and prompt response is a valuable input for the quality and successful completion of the research paper.

General Instruction

- ❖ There is no need of writing your name;
- ❖ Please put the mark (✓) in the appropriate box; that indicate your response to the question.

In case of any inquiry about this questionnaire, you can call me through my cell phone or contact me through the following e-mail address.

E-mail: - afomiyatsegaye9@gmail.com

Phone: - +251930-805209

Thank you.

Part One

General Information

Please tick (✓) the boxes which are more applicable for your biographical information.

- 1) **Sex** ☐ Male ☐ Female
- 2) **Age**
☐ 25 and Below ☐ From 26 to 35 years
☐ From 36 to 45 years ☐ Above 46 years
- 3) **Educational Qualification**
☐ Below Diploma ☐ Diploma
☐ First Degree ☐ Second Degree and above
- 4) **Years of service in insurance companies in general**
☐ From 0 to 5 years ☐ From 6 to 10 years
☐ From 11 to 15 years ☐ Above 15 years
- 5) **Years of service in this company**
☐ From 0 to 5 years ☐ From 6 to 10 years
☐ From 11 to 15 years ☐ Above 15 years
- 6) **Years of service in this position**
☐ Less than 1 year ☐ From 1 to 5 years
☐ From 6 to 10 years ☐ Above 10 years
- 7) **Number of years the insurance company has been working in Ethiopia**
☐ From 1 to 5 years ☐ From 6 to 10 years
☐ From 11 to 15 years ☐ Above 15 years
- 8) **Current number of employees in the insurance company**
☐ Below 30 employees ☐ From 31 to 60 employees
☐ From 61 to 90 employees ☐ Above 90 employees
- 9) **Initial capital of the insurance company during the establishment (in Birr)**
☐ Below 20 million ☐ From 21 to 40 million
☐ From 41 to 60 million ☐ Above 60 million
- 10) **Current capital level of the insurance company (in Birr)**
☐ Below 20 million ☐ From 21 to 40 million
☐ From 41 to 60 million ☐ Above 60 million

Part Two

Assessment of Innovation Strategy Practices

Please indicate the extent to which you agree or disagree with each statement by putting (√) to the correspondent number. Higher number indicates higher level of agreement.

Key: 1 (SD) – Strongly Disagree; 2 (D) – Disagree; 3 (N) – Neutral; 4 (A) – Agree; and 5 (SA) – Strongly Agree

No.	Item	SD (1)	D (2)	N (3)	A (4)	SA (5)
1.	Process Innovation Strategy (PCIS)					
	Our company ...					
1.1	has determined non value adding activities in delivery related processes	1	2	3	4	5
1.2	has decreased variable cost in related logistic processes	1	2	3	4	5
1.3	has increased delivery speed in delivery related logistics processes	1	2	3	4	5
1.4	adopts advanced real-time process control technology	1	2	3	4	5
1.5	imports advanced automatic quality restriction equipment and software	1	2	3	4	5
1.6	has eliminated non value adding activities in delivery related processes	1	2	3	4	5
1.7	has increased output quality in service software	1	2	3	4	5
1.8	has decreases variable cost components in service processes	1	2	3	4	5
1.9	imports advanced programmable equipment	1	2	3	4	5
1.10	eliminates non value adding activities in service processes	1	2	3	4	5
2.	Technological Innovation Strategy (TIS)					
	Our company ...					
2.1	automate routine tasks using new technologies	1	2	3	4	5
2.2	adopt new systems such as Enterprise Resource Planning	1	2	3	4	5
2.3	increase investment in innovative technology	1	2	3	4	5
2.4	adopt new innovative technology	1	2	3	4	5
2.5	support process innovation by adopting technologies	1	2	3	4	5
2.6	allocate resources to sharing technology	1	2	3	4	5
2.7	considers the use of technology as a driver of business growth	1	2	3	4	5
2.8	guides the evaluation of new ideas by technological objectives	1	2	3	4	5
2.9	work towards specific technological goals or objectives	1	2	3	4	5
2.10	has the same or similar technologies to the competitors	1	2	3	4	5
3.	Product Innovation Strategy (PDIS)					
	Our company ...					
3.1	develops new products with technical specifications	1	2	3	4	5
3.2	increases manufacturing quality materials of current products	1	2	3	4	5
3.3	develops newness for current products leading to improved ease of use for customers	1	2	3	4	5
3.4	develops new products with materials totally differing from the current ones	1	2	3	4	5
3.5	designs product functionalities totally differing from the current ones	1	2	3	4	5
3.6	decreases manufacturing cost materials of current products	1	2	3	4	5
3.7	develops new products with components totally differing from current ones	1	2	3	4	5

3.8	decreases manufacturing costs in components of current products	1	2	3	4	5
3.9	increases manufacturing quality in components of current products	1	2	3	4	5
3.10	develops new products for to improve customer satisfaction	1	2	3	4	5
4.	Marketing Innovation Strategy (MIS)					
	Our company ...					
4.1	formulate market innovation to increases employee knowledge and skills	1	2	3	4	5
4.2	adopt market innovation and way of operation as the most suitable for delighting our customers	1	2	3	4	5
4.3	work to customer satisfaction as part of market innovation strategy	1	2	3	4	5
4.4	improve service quality as one of the key objectives of market innovation strategy	1	2	3	4	5
4.5	has internal cooperation as an important part of market innovation strategy	1	2	3	4	5
4.6	competiveness has increased greatly since the introduction of market innovation	1	2	3	4	5
4.7	adopt market innovation strategy that helped the company to achieve its strategic goals	1	2	3	4	5
4.8	adopt market innovation that has enhanced organizational performance greatly	1	2	3	4	5
4.9	improve administration routines by considering it as part of market innovation strategy	1	2	3	4	5
4.10	increase marketing aggressiveness as an important part of market innovation	1	2	3	4	5

Part Three

Assessment of Insurance Firm Performance

By considering the performance of your insurance company within the last two years, please indicate your response to each statement by putting (✓) to the correspondent number.

Key: 1 (SD) – Strongly Disagree; 2 (D) – Disagree; 3 (N) – Neutral; 4 (A) – Agree; and 5 (SA) – Strongly Agree

No.	Item	SD (1)	D (2)	N (3)	A (4)	SA (5)
1.						
1.1	The sales level of our company is increasing from year to year	1	2	3	4	5
1.2	The company has increased the timely delivery of services to its customers from year to year	1	2	3	4	5
1.3	The overall profitability of the company has increased over the last year	1	2	3	4	5
1.4	There is an increase in capacity building of our company	1	2	3	4	5
1.5	There is enhanced organization's customer satisfaction	1	2	3	4	5
1.6	There is a significant level of reduction in operational cost	1	2	3	4	5
1.7	Our company has enhanced proper resource utilization over the recent years	1	2	3	4	5
1.8	There is increased efficiency in organization operation	1	2	3	4	5

Thank You!!!