Majors: HRM

No. (HRM/27)

# "The Impact of Innovation Capabilities on Risk Management in Telecom Sector of Islamabad and Rawalpindi: The Contingent Role of Organizational Culture"



By:

(Muhammad Umar Farooq)

(01-321192-037)

**Supervisor:** 

(Nida Kamal)

Department of Business Studies

Bahria University Islamabad

Fall-2020

## FINAL PROJECT/THESIS APPROVAL SHEET Viva-Voce Examination

Viva Date <u>18/02/2021</u>

<u>Topic of Research:</u> The Impact of Innovation Capabilities on Risk Management in Telecom Sector of Islamabad and Rawalpindi: The Contingent Role of Organizational Culture

Name of Student: M Umar Farooq

**Enroll** # 01-321192-037

Class: MBA 1.5

Approved by:		
	Nida Kamal Supervisor	
	Amna Yameen Examiner-I	
	<b>Qurat Ul Ain</b> Examiner-II	
	Dr. Syed Haider Ali Shah Research Coordinator	
	Dr Muhammad Ali Saeed Head of Department Business Studies	

### Contents

DEDICAT	ION	4
ACKNOW	/LEDEMENT	5
DECLARA	ITION	6
ABSTRAC	тт	7
Chapter	1: Introduction	8
1.1	Background	8
1.2	Industrial analysis:	10
1.3	Research Gap Analysis	11
1.4	Problem Statement	13
1.5	Research Questions	14
1.6	Objectives of the Study	14
1.7	Significance of the Study	15
1.8	Rationale of the Study:	15
1.9	Contribution of the study:	16
Chapter :	2: Literature Review	18
1.1	Innovation capabilities:	18
2.1.	1 New technology:	20
2.2	Risk management:	22
2.3	Organizational Culture:	24
2.4	Organizational Resource:	26
2.5	Theoretical Framework:	28
Chapter :	3: Methodology	31
3.1	Philosophical Stance:	31
3.2	Research Approach:	31
3.3	Data collection Strategies:	31
3.4	Research Design and Method:	32
3.5	Population and Sampling	32
3.6	Time Horizon:	32
3.7	Instrument Development	32
3.8	Pilot Study	33

3.8 Da	ata Col	llection:	. 33
Chapter	4: Dat	a Analysis	. 34
4.1	Data	Analysis:	. 34
4.1.	.1	Descriptive Analysis	. 34
4.1.	.2	Reliability	. 36
4.1.	.3	Correlation	. 36
4.1.	.4	Regression Analysis	. 38
4.1.	.5	Moderation Analysis	. 40
Chapter	No. 5:	IMPLICATION OF RESULTS, DISCUSSIONS AND CONCLUSIONS	. 44
1.1	Impl	ication of Results	. 44
1.2	Disc	ussion	. 45
1.3	Cond	clusion	. 45
1.4	Reco	ommendations and Future Research	. 47
Reference	ces		. 48
Annandi	v		52

#### **DEDICATION**

I devote this humble effort especially to my dear and respectable parents and siblings whose love and guidance enables me to accomplish the task of research and whose well wishes have always been a source of my success. I also want to dedicate this work to my respected supervisor, whose quality guidance encouraged and motivated me to achieve my goal.

#### **ACKNOWLEDEMENT**

I would like to thank Almighty ALLAH from the depth of my heart for the love and devotion he has shown me in my life and power. He has given me the opportunity to deal with any problems that have arisen in my life. I would really like to appreciate my supervisor for her efforts, Ma'am Nida Kamal, who has demonstrated her devotional contribution to this dissertation's achievement. Within a short span of time, her professional advice, overwhelming attitude and irresistible encouragement made this dissertation a possibility. I am very thankful to my family for their love and support through every thick and thin period of my life. My family is the key factor behind my master's degree's achievement and accomplishments. I owe my parents a great sense of gratitude for their ongoing support throughout my life and for being my inspiration. I would like to thank my graduate friends' supportive efforts that have supported me a lot in my graduate degree.

## **DECLARATION**

I, Muhammad Umar Farooq, MBA student in HRM subject, the subject matter of this study is
my own work and has not been printed, published and/or submitted in any form as a research
work, dissertation or publication at any university in Pakistan or abroad.

#### **ABSTRACT**

This study is focused mainly on identifying the impact of innovation capability on risk management with moderating effect of organizational culture and organizational resource in telecom sector of Islamabad and Rawalpindi. In this study, innovation capabilities have been considered as independent variable. Whereas, organizational resource and organizational resource has been considered as the moderating variables. However, risk management has been used as the dependent variable. Meanwhile, this study has finalized telecom sector of Islamabad and Rawalpindi to testify the relationship between innovation capabilities, organizational culture, organizational resource and risk management. To prove this relationship, a survey has been conducted through a structured questionnaire by involving employees working in telecom sector of Islamabad and Rawalpindi, as these respondents have been requested to share their experiences by filling the structured questionnaire. Then, data analysis has been done based on collected data through various statistical instruments including descriptive frequencies, reliability, correlation, regression, ANOVA, and coefficient. Results have revealed that there exists significant relationship innovation capabilities between (independent variable), organizational culture, organizational resource (moderating variables), and risk management (dependent variable) in telecom sector of Islamabad of Rawalpindi.

Key Words: Innovation capabilities, organizational culture, organizational resource and Risk management

#### **Chapter 1: Introduction**

#### 1.1 Background

"Innovation" is the process through which something new or some changes can be implemented in a product or activity or service. Inventiveness and support for innovative innovations, their experimentation and growth are main characteristics of innovation. However, innovative innovations are not born with the absolute light of their potential (Paul Shum, dec 18 2020). In the business world, innovation is a very common term because nowadays it is considered as the way towards success. Innovative capability represents the ability of the firm to be innovative in various fields. Capabilities are major aspect of individual skills, assets and knowledge and understanding that are practiced through work operations, enabling companies to use their resources and coordinate activities (Ellinger., 1997). Innovation in capability is an obstacle in reaching operational excellence. In addition, innovation capabilities help in risk management as well as it plays an important part in building elasticity and attaining long-run sustainability for organizations. (Hacklin, 2018)have considered innovation capability as the essential element for the long-standing survival of the businesses in the present era of business.

The capability is different from an asset in a way that these are linked to "having" whereas abilities are related to "doing". Creative strategies of engineering will promise better superior services in order to show greater competition. However, it is the cultural context and design of the industry that innovation is carried out at a gradual pace or that it can be carried out in a cataclysmic fashion.(Malkah Noor Kiani, 28 January 2019) A significant approach is to configure the essential variables of corporate capital to facilitate creativity. Studies also pointed out that budget laxity, quality of knowledge generated by information technology (IS), process creativity and product innovation are indispensable drivers for product and service innovation. The value of information in creativity, since excellent quality information offers the information and expertise required to organize and monitor the creative work.

Technological innovation refers to the use of modern technology and new skills in the manufacturing process in order to improve processing speed, accuracy and performance. Product invention includes the use of innovative materials and prototypes to enhance the characteristics of the product, such as consistency, appearance, price and operation. Both process innovation and product innovation are developed to increase product efficiency. (Ming-Feng Su and Kuo-

Chih Cheng, 11 July 2018). Small and medium-sized businesses have been seen as significant contributors of economic improvement, wealth mobilization, large population employers and proponents of technical improvement in both developed and industrialized countries. Improving the nation's infrastructure, generating employment and reducing hunger in developed nations are very contingent on the successes of the SME industry.

The highest number of small and medium-sized enterprises in Ghana is used by 239 people in developing countries: in this context, the labor market is strongly fascinated by the improvement of small and medium-sized enterprises in their own countries.(Jacob Donkor, 20 May 2018)The socio-economic growth of the economies is strongly dependent on the successful advancement of the small and medium-sized businesses sector of the nations as well as on the technical advancement of the nations. Medium and small enterprises are important for the ability of nations to advance economic development and minimize poverty through the potential of small and medium-sized enterprises to build jobs for their individuals. Small and medium-sized businesses in Ghana to boost growth are minimally silent. (Jacob Donkor, 20 May 2018) In the developed world, the service industry is regarded as the most financial sector dominated by the highest share of gross domestic products. Generally speaking, the concept of invention in the corporate sector is referred to as service innovation, and the manufacturing industry involves the idea of product innovation. The design of service innovation cannot be called consistent among all service sectors and varies from sector to sector on the basis of the structure and market circumstances of each service sector. Innovation must be part of an organization's DNA if it is to survive and grow in a fast-moving business environment. Shooting for the stars, though, requires planning and checking, and a solid dose of risk control along the way (Anil K. Gupta, 2007).

Some organizations are combining innovation activities with risk control, recognizing that setting strategic targets without worrying about market risks could minimize these objectives. Companies who have established this convergence, according to a recent PwC report, have more faith in handling emerging technology such as robotics, robotic process automation (RPA) or artificial intelligence. (Neil Anderson, 2014)

#### 1.2 Industrial analysis:

The industrial sectors are categorized into four levels: high, medium-high, medium-low and low. They are used to provide information on the technical structure of businesses and the actions of competitive developments in various manufacturing sectors. It has been generally agreed that high-intensive technological firms are more creative and more productive, pay higher salaries and much more competitive than low-intensive technological firms.(Paulo Antônio Zawislak and Edi Madalena Fracasso, 26 February 2017). In the developed world, the service industry is regarded as the most financial sector dominated by the highest share of gross domestic products. There is, however, a distinction between the conception of creativity in the industrial industry and the service sector. Technology monitoring ensures that leading top companies in their respective sectors are able to track the variety of technological solutions available in the external world, while defining and selecting the most suitable technologies for their needs. When existing innovations have been found, companies need to pick and put them in. This method of assimilating technology takes place in two ways, by absorption or learning. Operational capacity includes the management of the production of goods and services on a commercial basis. It has been described as the expertise, abilities, experience and routines required to manufacture products and services in a versatile, quality and cost-effective manner. Operational capacity is responsible for the implementation of concepts that derive from technical capability. Production preparation, the quality method used and the goals of reducing production costs can be summarized.

Management capability refers to the expertise, abilities, experience and routines that an organization requires to manage its other tasks effectively. This skill also helps to reduce internal conflict in various parts of the business, and a well-developed management firm can produce productivity benefits in all areas. Strategic strategy, human resources and standards and practices are essential aspects of management capacity. Strategy planning refers to the pattern of actions taken by an organization to identify and report its goals, intentions or objectives, which are the basis of the key policies and measures to accomplish them. Transactional capacity is characterized as a collection of expertise, information, experience and routines of a business that enables it to reduce its transaction costs, whether in terms of purchases from suppliers or sales to consumers.

Transactional capability means that the company's business path is more effective through customer partnership, negotiating control and contract management. (Paulo Antônio Zawislak and Edi Madalena Fracasso, 26 February 2017). Organizations are now in desperate need to concentrate on new processes that could achieve business reputation and increase efficiency. Organizations will only consistently aim for creativity if they constantly upgrade their innovative capability. Creative strategies of engineering will promise better superior services in order to show greater competition. However, it depends on the social environment and the life of the industry that change is achieved at a steady rate (incremental innovation) or may be made in a cataclysmic manner. (Moore, 2005).

Innovation must be part of the DNA of an organization if it is to succeed and prosper in a fast-moving market setting. Shooting for the stars, though, requires planning and checking, and a solid dose of risk control along the way (Anil K. Gupta, 2007). Some organizations are combining innovation activities with risk control, recognizing that setting strategic targets without worrying about market risks could minimize these objectives. Companies who have established this convergence, according to a recent PwC report, have more faith in handling emerging technology such as robotics, robotic process automation (RPA) or artificial intelligence. (Neil Anderson, 2014)

#### 1.3 Research Gap Analysis

The industry's complex landscape and competitive strengths are pushing businesses to concentrate mainly on innovation activities. Most importantly it needs to examine the degree of different kinds of innovation capability for management of risk in different sectors (Michael Wang, 2019). Generally speaking, the idea of creativity in the business industry is distinguished as innovation process and the industrial sector includes the concept of product innovation. Service innovation is also rapidly evolving in industrial sectors in the form of new technologies delivered or product-service combined packages. While discussing on business innovation capabilities (Geissdoerfer, 2018)added that innovation helps the organizations creating a separate and stronger place in the market. While discussing on business innovation in support of this, (Cantwell, 2017)stated that innovation in the modern business era is required for achieving success in the market. Capability to invent continues to differ in the degree of innovation. Capacities for revolutionary technologies are the most successful (Zhan Su, 2016). The longevity

of companies in today's globalised environment of heavy competition cannot be assured by new product or service offerings alone. Organizations are now in desperate need to concentrate on new processes that could achieve business reputation and increase efficiency. (Malkah Noor Kiani, 28 January 2019) Innovation potential has been analyzed using three approaches: properties, processes and capabilities. Further experiments have grown to take it as a function of a number of complementary skills. In fact, this is complementary to the combination of the above-mentioned technical driver and the market driver of the organization. In other words, the corporation is seen as a technical collection of goods and processes that work under a particular business model trade and benefit from the industry. (Paulo Antônio Zawislak and Edi Madalena Fracasso, 26 February 2017)

Technology competence refers to the expertise, information, experience and routines that an organization uses to produce new technologies (goods and/or services). Technology potential is closely linked to R&D operations, which promote the development of new technologies. This skill consists of tracking technical developments, assimilating emerging technologies and formalizing the production process."Innovation" is the process through which something new or some changes can be implemented in a product or activity or service. Inventiveness and support for innovative innovations, their experimentation and growth are main characteristics of innovation. However, innovative innovations are not born with the absolute light of their potential(Paul Shum, dec 18 2020). In the business world, innovation is a very common term because nowadays it is considered as the way towards success. Innovative capability represents the ability of the firm to be innovative in various fields. Capabilities are major aspect of individual skills, assets and knowledge and understanding that are practiced through work operations, enabling companies to use their resources and coordinate activities (Ellinger., 1997). Innovation in capability is an obstacle in reaching operational excellence. In addition, innovation capabilities help in risk management as well as it plays an important part in building elasticity and attaining long-run sustainability for organizations. (Hacklin, 2018) have considered innovation capability as the essential element for the long-standing survival of the businesses in the present era of business. The capability is different from an asset in a way that these are linked to "having" whereas abilities are related to "doing". Creative strategies of engineering will promise better superior services in order to show greater competition

#### 1.4 Problem Statement

In an increasingly unpredictable world, a business must value diverse forms of creativity in order to succeed and expand. (Phan, 2019). That risk cannot be related to a specific goal or objective. Innovation may produce new goods, new programs, new technologies or new approaches to management. The impact of innovation capabilities on the organization can be in both positive and negative way and we need to identify that what is more suitable and reliable way of utilizing innovation capability to overcome organizational problems and managing all the risk in market in an effective way. A variety of studies either within or outside healthcare suggest that a series of diverse social and organizational processes constitutes the application of technologies (Steven Cranfield, 2015). Risk management is an integral aspect of the strategic strategy and is used as a risk-avoidance and risk-reduction measure at the lowest risk level to allow the company to perform effectively. Efforts to increase the efficiency of risk control will be rendered by the application of systemic risk management, i.e. business risk management (ERM).ERM seeks to set up protocols or processes within the enterprise so that detrimental risks can be expected and handled with a view to increasing firm value. In developing countries, the service industry is perceived to be the most economically-contributing sector dominated by the largest share of gross domestic products. Risk management is an important part of the corporate approach which is used as a risk-avoidance and risk-reduction measure at the lowest risk level to help the organization to compete efficiently. Efforts to enhance the consistency of the application of risk control can be rendered by the implementation of integrated risk management, i.e. the implementation of enterprise risk management (ERM). (Cortimigli, 2017) The aim of ERM is to set up procedures or systems within the organization so that adverse risks can be anticipated and managed in order to maximize the value of the company. "Innovation" is the process through which something new or some changes can be implemented in a product or activity or service. Inventiveness and support for innovative innovations, their experimentation and growth are main characteristics of innovation. However, innovative innovations are not born with the absolute light of their potential(Paul Shum, dec 18 2020). In the business world, innovation is a very common term because nowadays it is considered as the way towards success. Innovative capability represents the ability of the firm to be innovative in various fields. Capabilities are major aspect of individual skills, assets and knowledge and understanding that are practiced through work operations, enabling companies to use their resources and coordinate activities

(Ellinger., 1997). Innovation in capability is an obstacle in reaching operational excellence. In addition, innovation capabilities help in risk management as well as it plays an important part in building elasticity and attaining long-run sustainability for organizations. (Hacklin, 2018)have considered innovation capability as the essential element for the long-standing survival of the businesses in the present era of business.

There is, however, a contrast between the definition of innovation in the manufacturing sector as well as the service industry. Innovation must be part of the DNA of an organization if it is to succeed and prosper in a fast-moving market setting. Shooting for the stars, though, requires planning and checking, and a solid dose of risk control along the way (Anil K. Gupta, 2007). Some organizations are combining innovation activities with risk control, recognizing that setting strategic targets without worrying about market risks could minimize these objectives. Companies who have established this convergence, according to a recent PwC report, have more faith in handling emerging technology such as robotics, robotic process automation (RPA) or artificial intelligence. (Neil Anderson, 2014)

As modern problems need modern solutions so it is necessary to go for any new ideas that can help companies in risk management.

Therefore, the main question that arises from all of these problems is that:

"To identify the risks that organization face and manage byutilizing their innovation capabilities"

#### 1.5 Research Questions

- What are the essential requirements that organization need to consider while relying on innovation?
- In what ways organization should use innovation capabilities?
- What is the relationship between risk management of the business and innovation?

#### 1.6 Objectives of the Study

This study aiming to investigate the reasons that cause failure of the organizations in managing risk in the context of innovation. However, for achieving this aim, the study will focus on the following objectives:

#### Objectives:

- To identify and evaluate the essential requirements for organizational innovations
- To identify the common methods that organizations can adopt while incorporating innovation in the business
- To evaluate the relationship between innovation and risk management of the business.

#### 1.7 Significance of the Study

This study is to provide the effective way by which organization and more specifically the risk managers of the organization contribute towards the innovation capabilities of the firm as a whole. (Hacklin, 2018) Innovation was seen as an essential element for the long-term existence of businesses in the present market age. There are several examples where, because of their innovation capabilities, the businesses have reached higher standards. (Chen, 11 july 2018)

Product capabilities include using new materials and technologies to enhance a product's characteristics, such as consistency, look, service and price. The aim of process innovation and product efficiency is to build higher product output. It has concluded that companies can only continue to strive for creativity if they are constantly upgrading their innovation capability.(Chen, 11 july 2018)

Creative approach so revolutionary will guarantee the better superior services in order to show more productivity. The correlation between innovation and cooperation is often emphasized and recognize as a source of competitive advantage. (SyedHussain Mustafa MehboobAhmad, 28 january 2019).

#### 1.8 Rationale of the Study:

Major area of discussion of this research paper will be the reasons, which are causing failure of the businesses in the context of innovation. At this present scenario, this particular study will be highly significant because the study will focus on such a problem area that affects the survival or sustainability of the businesses. (Moore, 2005) He believed that firms could only find out more information for innovation if they constantly update their innovation capabilities. Creative innovation approaches may ensure better superior quality in order to demonstrate greater competitiveness (Kungu, 2014). At the same time, it can also be stated that the results of the

study will help the companies avoiding the steps that can hamper the innovation in their businesses. However, Researchers believe that organizations that are actively looking for improvement are more effective than organizations that implement small adjustments and changes(Sicotte, 2014) It can be stated that the study is highly significant in the present scenario of business.

#### 1.9 Contribution of the study:

Organizations that need to get the maximum out of their resources required a fresh tactic to risk management. The companies have to give their risk planners a wider mandate than they have up until now, with companies implementing these proposals differently. Traditional approaches to risk management tend to consist of an agree-or-no decision at all times, or regular analysis of a consistent business process. This study will contribute to the policy makers of the organizations in a way; they will be able to find the realistic view of their innovation capabilities that can be the best suit of their problem. The other area this research is going to cover, is to assist the strategic managers to make the firms innovative strategic decision within the available limited resources, that the firm capable of doing that. Innovation capabilities further help employees of the organization to give their best in work when they have risk free environment (Anirban Ganguly, 2019)

Effective application of this study will be for a firm to develop business, entrepreneurship, and learning contexts and to have unique, dynamic marketing capabilities. The successful application of this study would be for a company to build a business, entrepreneurship and learning environment and to have special, dynamic marketing capabilities. Proven managers should be trained or hired with fresh talent to allow the business to create creative, disruptive product innovation ventures, brand identity and new target market plans; Select and handle new downstream partners and rapidly launch input channels for customers (Dale A. Cake, 2019). The primary problem that the investigation of this study will try to solve is that after adopting different strategies and techniques, there are many organizations in different sectors failed to incorporate innovation in their business. This is a major problem in different industries, which is causing huge loss to the companies. This is considered as the big problem because for innovation most of the companies invest a huge amount of money and when the innovation fails companies lost the entire investment. This not only affects the financial position of the business, but at the

same time, it also hampers the performance standard of the entire industry. The stated problem is a major threat to the companies in the present scenario because at the present scenario the competition level in the external market is at the highest level and in order to survive in the market, the most important matter is innovation. However, as the companies are failing to innovate properly, it became a major issue in the current scenario. Organizations are now in desperate need to concentrate on new processes that could achieve business reputation and increase efficiency. Organizations will only consistently aim for creativity if they constantly upgrade their innovative capability. Creative strategies of engineering will promise better superior services in order to show greater competition. However, it depends on the social environment and existence of the industry that progress is carried on at a gradual pace or may be carried out in a cataclysmic fashion (Moore, 2005).

#### **Chapter 2: Literature Review**

#### 2.1 Innovation capabilities:

To change the company's strategy, creativity will reconfigure and turn both outside and inner capital. (Michael Wang, 2019)Capacity for innovation is proposed as a higher-order combination capability is the skill to shape and grips several capacities. Businesses with this capacity for innovation can incorporate their organizations' key capabilities and assets to effectively empower advancement. The existence of such a relationship often underlies circumstantial evidence. For example, Sony's founder, Akio Morita, attributes the success of the organization's ability to innovate (Anjum, 2014). (Hacklin, 2018) has considered innovation capability as the essential element for the long-term survival of the businesses in the present era of business. Innovation capability is independent variable here. Rising the ability of a company to drive innovation means trying to develop the right policy framework for achieving targets for innovation. It allows businesses increase their capacity for innovation by utilizing nation-of-the-art software for process innovation. The more a skill is practiced, the more advanced it becomes; the more established and difficult it is to reproduce. Innovation capacity is a vital necessity for effective performance of ideas and innovation, as well as for implementing disturbing innovations. Firms with a low capacity for innovation frequently encounter inner barriers to innovation. Companies must improve their efficiency to innovate in an age of greater competition and digitization. They have to develop innovation capabilities that help them to start and enforce innovation that vary greatly in natural world, speed and level of innovation. This is something that many companies fail to achieve. Innovation capacity is proposed as a higher-order mix capability, that is, the ability to shape and handle various capacities. Businesses with this potential to evolve will combine the core skills and strengths of their companies to successfully motivate development. Innovation is the epitome of today's competitive advantage, sustained by high normal performance, speed, consistency and versatility capability. Innovation will allow corporations to assume a dominant position in shaping the destiny of their firms. In addition, these companies use the innovation approach and process as a means of further enhancing their assets and increasing the satisfaction of their customers. The further grounded the business-controlled innovation capability, the more effective their innovation outcome would be. Strategic management offers the organization a specific strategy and mission. This means that the basis for the life of a company is established in the strategic strategy. The effects of the strategic priorities

for corporate success have not been extensively studied, as the analytical results are also contradictory.(Jacob Donkor, 20 May 2018)

Organizational resources include its person, work force, raw material, properties, and financial means as well. Those resources play an important role in risk management. Co-specialization of the capital arose from the concept of balancing competition and collaboration between companies to achieve innovation (Sung Min Kim, 2019). If human capital well trained and skilled for their jobs, then they can implement strategies and make sure that productivity remains high tools and competencies can encourage small business growth by improving entrepreneurial behaviors in the development and exploitation of opportunities (Chul Hyun Uhm, 2018). Specialized funds and activities can also affect the price of innovation adoption, competitive approximation, supplier collaboration and strategic realigning of a company (Sung Min Kim, 2019). The availability of resources and capabilities plays a critical role in the development of new ventures in the early stages (Chul Hyun Uhm, 2018). Organization Resources is a moderating variable here in the business and economic sense, a resource is any element required to accomplish a goal or perform an operation. The availability of capital and skills shows a serious role in the initial stages of development of new enterprise (Chul Hyun Uhm, 2018).

Organizations are now in desperate need to concentrate on new processes that could achieve business reputation and increase efficiency. Organizations will only consistently aim for creativity if they constantly upgrade their innovative capability. In contrast to the general assumptions that innovation-type SMEs will be above average in terms of technological innovation and output input, it has recently been argued that different results could result depending on the industrial life cycle, stage of market development, core business resources (For eg, market strategy and localization and invention tools) and core competencies.(Zhan Su, 2016) Innovation for the development driver of a firm allows entrance into a new sector or a new market. From this point of view, the development of a good new product is a very important goal. Especially for those small and medium-sized companies (SMEs) with minimal capital, the issue of whether or not a new product will be viable becomes a matter of survival. Although the popularity of new products is a crucial concern, research in this essential area of customer reaction to new SME products are comparatively small. The definition of service creativity has grown and evolved over the past two decades. (Miles, 1993) Coincided with the idea of business

innovation in the academic environment and introduced an influential research detailing all potential characteristics of innovation-related services. Service invention shall take place within a service organization if any modification, modification or redesign of the features of the service delivered is made by a service organization. Implementation of technological innovations requiring the parts of the sector to recruit additional competencies, skills or expertise to allow for a step-by-step shift in the services offered. The definition of a service is a starting point for the implementation of a new service and a key feature for the creation of a new high-quality service. The definition of operation requires the explanation of two important facets of the concept;

- 1. In-depth understanding of what consumers require.
- 2. The diverse types of architecture of new services that can completely meet the desires of the customer with greater satisfaction.(Cheng Tseng, 2 February 2019)

However, there are other considerations which cannot be negated during the final approval of the configuration of the service offered. It may include priority preferences of the customer (i.e. some demanding customer needs are primary and others secondary and these needs need to be prioritized accordingly, etc.) and/or all other similar support resources.(Cheng Tseng, 2 February 2019)

The advertised act of competition between small and medium enterprises and big rivals as advocated by small and medium-sized enterprises can have a positive effect on small and medium-sized enterprises.(Choi, 2016)

#### 2.1.1 New technology:

It has been generally agreed that high-tech companies are more creative, more effective, pay better salaries and are more profitable than low-tech firms. The technical strength has a multidimensional character composed of three dimensions, two of which relate to industrial inputs (labor and capital) and one to production (product). The technical strength of the labor factor of production is related to the amount of experience and expertise of the labor force in the industry, while the technological intensity of the capital factor of production is related to the efficiency of the capital invested. (Vasquez, 2014) The technical intensity of the product applies to certain sectors that make substantial investments in the production of new technologies and

processes. At the end of the day, this vision of technical intensity corresponds explicitly to the conventional study of the ratio between capital and labor, under which the more capital-intensive and manufacturing market, the more technologically intensive it would be, and vice versa. Technological competence applies to the expertise, information, experience and routines that the company requires to produce new goods or services. Technology potential is closely linked to R&D operations, which promote the development of new technologies.

This skill consists of tracking technical developments, assimilating emerging technologies and formalizing the production process. (Alejandro Germán Frank, 2019) Technological monitoring ensures that leading companies in their respective sectors are able to track the variety of technological solutions available in the external world, while defining and selecting the most suitable technologies for their needs. When existing innovations have been found, companies need to pick and put them in. Technology disruption is causing economic fluctuations by jolting the economy with the growth of new economies, transforming the way in which goods are distributed and producing dynamic gains as well as technical progression.(Alejandro Germán Frank, 2019) Technology advancement happens irregularly depending on the age involved and, once in place, forms a cluster, thereby playing a leading role in economic growth. Technology disruption triggers business fluctuations by jolting the economy through the growth of emerging economies, shifting product supply habits and creating dynamic gains, as well as technology progression. Technology advancement happens irregularly depending on the age involved and, once in place, forms a cluster, thereby playing a leading role in economic growth. In contrast to the general assumptions that innovation-type SMEs will be above average in terms of technological innovation and output input, it has recently been argued that different results could result depending on the industrial life cycle, stage of market development, core business resources (such as business planning and localization and innovation tools) and core competencies. Organizational resources include its person, work force, raw material, properties, and financial means as well. Those resources play an important role in risk management. Cospecialization of the capital arose from the concept of balancing competition and collaboration between companies to achieve innovation (Sung Min Kim, 2019). If human capital well trained and skilled for their jobs, then they can implement strategies and make sure that productivity remains high tools and competencies can encourage small business growth by improving entrepreneurial behaviors in the development and exploitation of opportunities (Chul Hyun Uhm,

2018). Specialized funds and activities can also affect the price of innovation adoption, competitive approximation, supplier collaboration and strategic realigning of a company (Sung Min Kim, 2019). The availability of resources and capabilities plays a critical role in the development of new ventures in the early stages (Chul Hyun Uhm, 2018). Organization Resources is a moderating variable here in the business and economic sense, a resource is any element required to accomplish a goal or perform an operation. The availability of capital and skills shows a serious role in the initial stages of development of new enterprise (Chul Hyun Uhm, 2018). Organizations are now in desperate need to concentrate on new processes that could achieve business reputation and increase efficiency. Organizations will only consistently aim for creativity if they constantly upgrade their innovative capability. Technological innovation refers to the use of modern technology and new skills in the manufacturing process in order to improve processing speed, accuracy and performance. Product invention includes the use of innovative materials and prototypes to enhance the characteristics of the product, such as consistency, appearance, price and operation. Both process innovation and product innovation are developed to increase product efficiency. (Ming-Feng Su and Kuo-Chih Cheng, 11 July 2018). Small and medium-sized businesses have been seen as significant contributors of economic improvement, wealth mobilization, large population employers and proponents of technical improvement in both developed and industrialized countries. Improving the nation's infrastructure, generating employment and reducing hunger in developed nations are very contingent on the successes of the SME industry.

#### 2.2 Risk management:

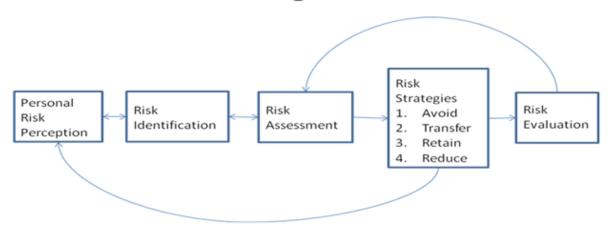
Risk management is about identifying risks and implementing plans to minimize, share, transfer or accept those risks (Lindahl, 2019). Organization's risk for new strategies or decisions also depends upon organizational capabilities of handling innovation. Through innovation capability an organization can divide the risk into small pieces and implement new strategies to overcome those smaller risks. In this new era organizations must need to manage their risks for the success and innovation. Risk management procedures are remarkably required, a need that becomes greater the more complicated and sizeable the project is (Lindahl, 2019). Risk is something which organizations can't avoid. Danger exists, because circumstances are unknown. Under

(Hanafi, 2019), Risks can be classified into two types: pure risks and theoretical risk. A risk management tool is needed to be able to handle the various risks that the organization faces. Risk management focuses on identifying the threats and taking appropriate action against those threats (Iswajuni Iswajuni, 2018). The business risk management aims at generating added value in all organizational activities continuously (Siahaan, 2009). In addition, good corporate governance standards which explicitly focus on risks management will help a company achieve its goals. (Cortimigli, 2017)Risk management is an important part of the business plan which is applied as a risk avoidance and reduction measure at the lowest risk level to allow the organization to succeed in competition. Efforts to increase the efficiency of risk management implementation will be rendered by comprehensive risk management, i.e. business risk management (ERM) implementation.ERM seeks to set up processes or structures within the enterprise so that adverse risks can be expected and handled with a view to increasing firm value. (SyedHussain Mustafa MehboobAhmad, 28 january 2019) Innovation for the development driver of a firm allows entrance into a new sector or a new market. From this point of view, the development of a good new product is a very important goal. Especially for those small and medium-sized companies (SMEs) with minimal capital, the issue of whether or not a new product will be viable becomes a matter of survival. Although the popularity of new products is a crucial concern, research in this essential area of customer reaction to new SME products are comparatively small. The advertised act of competition between small and medium-sized enterprises and big rivals as advocated by small and medium-sized enterprises can have a positive effect on small and medium-sized enterprises.(Choi, 2016) The Robson Risk Management Model is a systematic approach to risk assessment. The strategy consists of five components: personal risk perception; risk identification; risk management; risk strategies; and risk evaluation. As you can see from the model, each part is linked to the other, and it is important to be constructive and mindful as you work on each one.

In this study we are following Robson Risk Management Model to first perceive and identify the risk then assess it, after assessment while making risk management strategy we should follow innovation strategies to manage risk. Organization who applies innovation does not only grow faster but also they manage multiple type of market risk before its happening. Financial risk represents the first and perhaps most critical step in the risk management cycle (Thomas Michael

Brunner-Kirchmair, 2019). Organizational human capital also helps to handle the risk and more often embrace creativity. Through individual's personality traits can influence innovative behavior (Anil K. Gupta, 2007). A framework is developed to address the problem of risk management in organization and to study the effects and relationships between the variables that were incorporated into the study and the model. The model that was designed to form the basis of the study and the source of proposing improved theories to deal with risk management in organizations is as follows:

## Robson Risk Management Model



#### 2.3 Organizational Culture:

Corporate culture can also boost economic competitiveness by incorporating radical and revolutionary product/process technologies. One of the most important contributions to corporate entrepreneurial activity can be seen in internal learning systems that enhance workers' abilities to evaluate opportunities and devise new goods. If a corporation has a creative spirit, creativity (i.e. the restructuring of an established enterprise, the birth of a new corporate entity and innovation) will take place. Corporate creativity is also an important source of motivation for the growth of innovation. There is a clear need for corporate entrepreneurship, particularly given the urgent circumstances that businesses face today. These factors are putting the viability and growth potential of a company at risk and are contributing to a rapid increase in the number of modern and sophisticated competitors, a sense of mistrust in conventional corporate governance structures, a fall in the scale of major corporations and a loss of faith in traditional corporate

governance models an exodus of key inventors(Sung Min Kim, 2019). Most researchers see corporate entrepreneurship as a concept that 'refers to entrepreneurial efforts that are subject to organizational sanctions and capital contributions for innovation outcomes.'A central concept of corporate entrepreneurship that defines this term as structured or informal practices aimed at creating new companies in established organizations by product and process innovations and market shift. These formal or informal practices can take place at corporate, divisional, functional or project level as long as the unifying goal is to enhance the market position and financial performance of an organization(Zhan Su, 2016).

Culture can be a very complicated problem that is impossible to quantify, since it includes actions and behaviors. Organizational culture is characterized as a collection of values, shared principles and values that affect how workers perceive, behave and behave at work. Culture is a multifaceted concept that derives from simple perspectives and beliefs regarding tangible building blocks and behaviors. A strong dose of optimistic confusion often prevails in deciding whether a corporate culture can be 'assessed by a lens of relative wisdom. Primary inquiry relating corporate culture and effectiveness appears to be reasonably constrained due to lack of consensus on the most relevant indicators of effectiveness.SME administrators are hesitant to commit ample resources out of the time required for regular day-to-day activities to the execution of appropriate strategic planning and objectives. Small and medium-sized businesses have been described as the key producers of growth and creativity in most economies of the world. This gives them stability to deal with unfavorable economic circumstances and competitive business patterns. It is also expected that small and medium-sized companies who build on their creative capabilities can achieve better success than their competitors who do not. In addition, these companies use processes and system development as a way to further improve their goods and raise the benefit of 243 SMEs in Ghana to their customers.(Jacob Donkor, 20 May 2018)In contrast to the general assumptions that innovation-type SMEs will be above average in terms of technological innovation and output input, it has recently been argued that different results could result depending on the industrial life cycle, stage of market development, core business resources (such as business planning and localization and innovation tools) and core competencies. Innovation for the development driver of a firm allows entrance into a new sector or a new market. From this point of view, the development of a good new product is a very important goal. Especially for those small and medium-sized companies (SMEs) with minimal capital, the issue of whether or not a new product will be viable becomes a matter of survival. Although the popularity of new products is a crucial concern, research in this essential area of customer reaction to new SME products are comparatively small.

Risk management is about identifying risks and implementing plans to minimize, share, transfer or accept those risks (Lindahl, 2019). Organization's risk for new strategies or decisions also depends upon organizational capabilities of handling innovation. Through innovation capability an organization can divide the risk into small pieces and implement new strategies to overcome those smaller risks. In this new era organizations must need to manage their risks for the success and innovation. Risk management procedures are remarkably required, a need that becomes greater the more complicated and sizeable the project is (Lindahl, 2019). Risk is something which organizations can't avoid. Danger exists, because circumstances are unknown. Under (Hanafi, 2019),

The advertised act of competition between small and medium-sized enterprises and big rivals as advocated by small and medium-sized enterprises can have a positive effect on small and medium-sized enterprises.

#### 2.4 Organizational Resource:

Organizational resources include its person, work force, raw material, properties, and financial means as well. Those resources play an important role in risk management. Cospecialization of the capital arose from the concept of balancing competition and collaboration between companies to achieve innovation (Sung Min Kim, 2019). If human capital well trained and skilled for their jobs, then they can implement strategies and make sure that productivity remains high tools and competencies can encourage small business growth by improving entrepreneurial behaviors in the development and exploitation of opportunities (Chul Hyun Uhm, 2018). Specialized funds and activities can also affect the price of innovation adoption, competitive approximation, supplier collaboration and strategic realigning of a company (Sung Min Kim, 2019). The availability of capital and skills plays a crucial role in the creation of new projects at an early stage. (Chul Hyun Uhm, 2018). Organization Resources is a moderating variable here in the business and economic sense, a resource is any element required to

accomplish a goal or perform an operation. The availability of capital and skills shows a serious role in the initial stages of development of new enterprise (Chul Hyun Uhm, 2018).

Organizations are now in desperate need to concentrate on new processes that could achieve business reputation and increase efficiency. Organizations will only consistently aim for creativity if they constantly upgrade their innovative capability. Creative methods of innovation can guarantee better superior services in order to show greater competition. However, the sluggish speed of innovation relies on the societal background and existence of the sector/industry (incremental innovation)(SyedHussain Mustafa MehboobAhmad, 28 january 2019). In developing world, the service industry is perceived to be the most economical-contributing sector dominated by the largest share of GDP. Generally speaking, the idea of creativity in the business industry is differentiated as service innovation and the industrial sector includes the concept of product creation.

Organizational resources are not only financial but also the values, human resource and capabilities they have. Innovation and capability enhancement allows workers to develop skills for enhancing their performance (Joy Furnival, 2019). Adopting innovation does not only create growth but it's also an opportunity for human resource to enhance their skills. Strategy formulation enhances the effectiveness of management processes that are actually reflected positively in organizational results (Mohammed Saleh Alosani, 2019). Organizational innovation aims to boost organization's efficiency reducing transaction and admin expenses, increasing workplace satisfaction, gaining access to no tradable assets or lowering the cost of supply (Tessa Avermaete, 2003). Innovation also allows companies to offer a larger range of differentiated goods that can improve financial performance (Mohammed Saleh Alosani, 2019). The architecture of service innovation cannot be called homogeneous among all service sectors and varies from sector to sector on the basis of the structure and market circumstances of each service sector. A core definition of corporate entrepreneurship that characterizes this term as formal or informal activities aimed at creating new businesses in existing industries through product and process innovations and market shifts. These formal or informal practices can take place at the organizational, divisional and functional or project level as long as the unifying goal is to enhance the market position and financial performance of an organization. The longevity of companies in today's globalised environment of heavy competition cannot be assured by new product or service offered alone. Organizations are now in desperate need to concentrate on new

processes that could achieve business reputation and increase efficiency. Risk management is about identifying risks and implementing plans to minimize, share, transfer or accept those risks (Lindahl, 2019). Organization's risk for new strategies or decisions also depends upon organizational capabilities of handling innovation. Through innovation capability an organization can divide the risk into small pieces and implement new strategies to overcome those smaller risks. In this new era organizations must need to manage their risks for the success and innovation. Risk management procedures are remarkably required, a need that becomes greater the more complicated and sizeable the project is (Lindahl, 2019). Risk is something which organizations can't avoid. Danger exists, because circumstances are unknown. Under (Hanafi, 2019) Organizational resources include its person, work force, raw material, properties, and financial means as well. Those resources play an important role in risk management. Cospecialization of the capital arose from the concept of balancing competition and collaboration between companies to achieve innovation (Sung Min Kim, 2019). If human capital well trained and skilled for their jobs, then they can implement strategies and make sure that productivity remains high tools and competencies can encourage small business growth by improving entrepreneurial behaviors in the development and exploitation of opportunities (Chul Hyun Uhm, 2018). Specialized funds and activities can also affect the price of innovation adoption, competitive approximation, supplier collaboration and strategic realigning of a company (Sung Min Kim, 2019).

#### **2.5** Theoretical Framework:

In this study we are following Robson Risk Management Model to first perceive and identify the risk then assess it, after assessment while making risk management strategy we should follow innovation strategies to manage risk. Organization who applies innovation does not only grow faster but also they manage multiple type of market risk before its happening. Financial risk represents the first and perhaps most critical step in the risk management cycle (Thomas Michael Brunner-Kirchmair, 2019). Organizational human capital also helps to handle the risk and more often embrace creativity. Through individual's personality traits can influence innovative behavior (Anil K. Gupta, 2007). A framework is developed to address the problem of risk management in organization and to study the effects and relationships between the variables that were incorporated into the study and the model. The model that was designed to form the basis

of the study and the source of proposing improved theories to deal with risk management in organizations.

#### Relationship between innovation capabilities and Risk Management

Organization's ability to adopt innovation does not only help in growth but also the managing risks that organization face either inside or outside of the organization. Greater innovation enables a business to adapt better to the environment and improves its strengths and retain a competitive edge (Roger J Calantone, 2002). There are different types of innovations: business, organizational, method and product advancement. Organization's creativity refers to the production or introduction of novel concepts or activities within the structure of the organization. (Mohammed Saleh Alosani, 2019).

*H1.* Innovation capabilities and organizational risk management are positively related.

#### Relationship between organizational resources and organizational risk management

Organizational resources are not only financial but also the values, human resource and capabilities they have. Innovation and capability enhancement allows workers to develop skills for enhancing their performance (Joy Furnival, 2019). Adopting innovation does not only create growth but it's also an opportunity for human resource to enhance their skills. Strategy formulation enhances the effectiveness of management processes that are actually reflected positively in organizational results (Mohammed Saleh Alosani, 2019). Organizational innovation aims to boost organization's efficiency reducing transaction and admin expenses, increasing workplace satisfaction, gaining access to no tradable assets or lowering the cost of supply (Tessa Avermaete, 2003). Innovation also allows companies to offer a larger range of differentiated goods that can improve financial performance (Mohammed Saleh Alosani, 2019).

H2. Organizational resources and risk management are positively related.

#### Relationship between organizational culture and Risk Management

Culture can be a very complicated problem that is impossible to quantify, since it includes actions and behaviors. Organizational culture is characterized as a collection of values, shared principles and values that affect how workers perceive, behave and behave at work. Culture is a

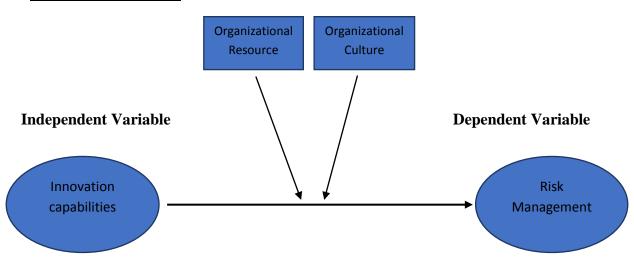
multifaceted concept that derives from simple perspectives and beliefs regarding tangible building blocks and behaviors. A strong dose of optimistic confusion often prevails in deciding whether a corporate culture can be 'assessed by a lens of relative wisdom. Primary inquiry relating corporate culture and effectiveness appears to be reasonably constrained due to lack of consensus on the most relevant indicators of effectiveness.

H3. Organizational Culture and risk management are positively related

#### **Hypothesis:**

- H1. Innovation capabilities and organizational risk management are positively related.
- *H2.* Organizational resources and risk management are positively related.
- H3. Organizational culture and risk management are positively related.

#### **Moderating Variables**



#### **Chapter 3: Methodology**

#### 3.1 Philosophical Stance:

Research philosophy considers discussing in detail for the topic. Research philosophy deals with nature, development and source of knowledge for developing the phenomenon, which should be collected and analyse later. Philosophy in the research helps to involve for being aware and formulated the assumptions and beliefs towards the research. In the research, positivism research philosophy has been chosen to conduct the study. Positivism research philosophy is considered to explain the research topic in succinct and precise manner (Kumar, 2019). Positivism philosophy helps the study to adopt the research approaches and data analysis for being external and internal analysis. Philosophical stance includes the different choices according to research questions or the problem for example objectivism, positivism, constructivism and realism. In our research as we are testing the hypothesis of between innovation capabilities and risk management and we have a positive stance that there is a relation between our variables.

#### 3.2 Research Approach:

Research approach is tested to develop the new theories and generalisation for conducting the facts and how the research is being processed. Research approach tests the assumption and the validity of the theories and hypothesis to contribute in research. In the current research, deductive research approach has been chosen to conduct the research. Research approaches are effective to contribute for the theories and generalisation for research. Deductive approach helps to interfere when the premises are considered as true. Deductive approach is used for considering the existing theories by following theory, hypothesis, test, and confirmation or rejection. Inductive research approach has not been chosen because the study is focused on existing theories and concepts only.

#### 3.3 Data collection Strategies:

Results of the research directly depends upon the data we collect so we need to be careful while collecting data and designing the method of data collection. There are several data collection methods that we can use for example experiments, surveys, interviews or observation. A researcher can use either only one method or use multiple for more accurate results. According to our research we are choosing the survey strategy because we want to collect the data from people

and want to know their opinion about the hypothesis we create. A survey will include a questionnaire and that will be filled by the targeted organizational members.

#### 3.4 Research Design and Method:

Research Design helps the research to consider as a choice of quantitative and qualitative research methods. There are important elements to conclude the research strategy of a method for collecting data and analysing that. In the study, descriptive research design has been chosen for developing the context of research. Data analysis and research has been focused to identify the innovation capabilities and its impact on the risk management. It helps the research to be conducted in descriptive way for focusing on research aim and objectives.

#### 3.5 Population and Sampling

Total population chosen for this study has been total number of employees working telecom industry of Rawalpindi and Islamabad. Meanwhile, total population for this study is unknown, employees working in telecom sector of Rawalpindi and Islamabad are not countable. In this study, sample size has been selected through formula (8(n) +50) formulated by (Green, 2010). Where 'n' is total number of variables used in this study, as in this study we are focusing on four variables then a sample size of 82 respondents (employees working in telecom sector of Rawalpindi and Islamabad) have been finalized to represent the entire population.

#### 3.6 Time Horizon:

In research, there are two-time horizons that a researcher follows either the cross-sectional which includes the short term research and second is longitudinal in which research takes longer period and data might be collected multiple times during that time horizon. As our research is not a long period research, it will take short time to collect data and conclusion will be drawn from the results we will get from the survey method so we are selecting the cross-sectional method here.

#### 3.7 Instrument Development

The numbers of researchers who have already published research on this literature have used the questionnaire methodology to collect the results. The key procedure used to collect data within this study was therefore a formal questionnaire. Structured questionnaire has been adapted from a previously conducted research studies regarding this literature topic. Questions regarding Innovation capabilities have been adapted from, Organizational culture, organizational resource

and risk management. Meanwhile, adapted structured questionnaire using 5 points Likert scale (1 representing strongly disagree and 5 representing strongly agree) has been distributed for data collection.

#### 3.8 Pilot Study

A pilot study has been conducted to check that whether the questionnaire is suitable and comprehensive enough for the research or not. For that purpose, the researcher conducted a pilot study and the numbers of respondents chosen for this test were 10, which were included in the total 82 respondents. The purpose of running a pilot study was to see if there is any problem in understanding of questions, to check are there any vague or unclear questions, and to check whether the source used for data collection is suitable or not.

#### 3.9 Data Collection:

Data collection and analysis includes the discussion about the methods to explain in brief. Data analysis includes collecting information as qualitative and quantitative data analysis. In the present research, primary quantitative data analysis has been done using survey. Data analysis for quantitative research involves interpretation of critical analysis behind the main findings (McCusker, 2015). Data analysis has been done by informing critical analysis interpretation in the absence of common pattern to the research area. 25 respondents have been chosen to develop and conduct the survey.

#### **Chapter 4: Data Analysis**

#### 4.1 Data Analysis:

Once the data has been compiled, various statistical tools, such as correlation and regression, have been used with SPSS software to carry out the analysis and determine the direction and extent of the relationship between the variables. Whereas, statistical instruments used for data analysis includes frequency and descriptive analysis, Cronbach's alpha for reliability statistics, Pearson correlation coefficient for validity, and simple linear regression analysis.

#### **4.1.1** *Descriptive Analysis*

The researcher has grouped the data collected into different classes so that it is easier to interpret. The sample size consists of different groups and they are as follows, what is the gender, occupation, position and qualification of the respondents. These questions if answered as per the expectations, then those people were included in the study.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std.
					Deviation
Gender	82	1	2	1.40	.493
Occupation	82	1	3	1.88	.908
Position	82	1	5	1.90	1.402
Qualification	82	1	3	2.24	.639
Valid N (listwise)	82				

Demography		Frequency	Percent	
	Male	49	59.8	
Gender	Female	33	40.2	
	Total	82	100.0	
	Employed	39	47.6	
Occupation	Self	14	17.1	
	Employed			

	Student	29	35.4	
	Total	82	100.0	
	Staff	52	63.4	
	Line	10	12.2	
	Manager		12,2	
Position	Asst.	4	4.9	
1 Osition	Manager	·	1.0	
	Manager	8	9.8	
	Director	8	9.8	
	Total	82	100.0	
	Under	9	11.0	
	Graduate			
Qualification	Graduate	44	53.7	
Quannon	Post	29	35.4	
	Graduate		22.1	
	Total	82	100.0	

Out of 82, on gender bases, 49 respondents having percentage of 59.8 were males. 33 respondents with percentage of 40.2 were females respectively. Based on occupation, 39 respondents with percentage 47.6 were employed. Similarly, 14 respondents with the percentage of 17.1 were self-employed. Furthermore, 29 respondents with the percentage of 35.4 were students. Based on position, 52 respondents with the percentage of 63.4 were staff. Whereas, 10 respondents with the percentage of 12.2 were line manager. However, 4 respondents with the percentage of 24.9 were assistant manager. 8 respondents with the percentage of 9.8 were manager whereas only 8 respondents having percentage of 9.8 were direct level. Based on qualification, 9 respondents with the percentage of 11 were under graduate. Whereas, 44 respondents with the percentage of 53.7 were graduate. However, 29 respondents with the percentage of 35.4 were post graduate.

### 4.1.2 Reliability

	Cronbach's	N of
Variable Name	Alpha	Items
Innovation		
Capabilities	0.736	5
Risk Management	0.839	5
Organizational		
Culture	0.748	5
Organization		
Resources	0.846	5

This section mainly covers the Cronbach's alpha. The specific source, which is coefficient of reliability that tells us how well chosen items have positive correlations with each other in a set. A commonly accepted rule is that 0.6-0.7 alpha indicates an acceptable reliability level, and a good level of 0.8 or greater. Values above 0.95, however, are not generally good, as they may be an indicator of redundancy (Hulin, 2001). The value of Cranach's alpha shown by reliability statistics is 0.736 for innovation capabilities, for risk management 0.839, for organizational culture 0.748 and for organizational resources 0.846, which are highly acceptable in terms of our study. This value of Cronbach's alpha has clearly indicated the higher level of reliability and consistency possessed with the questionnaire used primarily the research conducted within the study. These values of Cronbach's alpha demonstrate the reliability of questionnaire used as well as the reliable responses provided by respondents.

### 4.1.3 Correlation

Two variables relationship strength is termed as correlation. W When there is a high strength of the correlation between the two variables, the correlation will be high or solid, and where the strength of the relationship is small, the correlation will be low, suggesting that the variables are barely interlinked. The approach by which the interaction strength is studied using the available evidence is referred to as the correlation study. The spectrum ranges from a correlation-coefficient of -1 to +1. If the correlation value is negative, i.e. -1, This means that if the value of one commodity changes, the value of the other variable increases while, on the other

hand, if the correlation value is positive, i.e. +1, the value of the other variable therefore increases as the value of one variable increases. Pearson r is a correlation coefficient that is sometimes used. Because the increase in value, i.e. interval scale, the two variables being evaluated are measured.

		Innovation	Risk	Organizational	Organizationa
		Capabilities	Management	Resources	Culture
	Pearson Correlation	1			
InnovationCapabilities	Sig. (2-tailed)				
	N	82			
	Pearson Correlation	.780**	1		
RiskManagement	Sig. (2-tailed)	0.000			
	N	82	82		
Organizational	Pearson Correlation	.560**	.565**	1	
Resources	Sig. (2-tailed)	0.000	0.000		
	N	82	82	82	
	Pearson Correlation	.455**	.500**	.695**	1
OrganizationalCulture	Sig. (2-tailed)	0.000	0.000	0.000	
	N	82	82	82	82

The table above indicates that the relationship between innovation capability and risk management is important at 0.00 level with a magnitude of .780\*\* and in a favorable direction. Whereas the association between employee morale and employee efficiency is important at a

stage of 0.01 with a magnitude of.508\*\* and in a favorable direction. In addition, the relationship between creativity ability and organizational capital is important at 0.00 level with a magnitude of.560\*\* and in a positive direction. However, the relationship between creativity potential and corporate culture is very important with a magnitude of.455\*\* and in a positive direction. Similarly, relationship that exists between risk management and organizational resources is highly significant with the magnitude of .565\*\* in a positive direction. Furthermore, relationship that exists between risk management and organizational culture is significant at 0.00 level with the magnitude of .500\*\* and in a positive direction.

### 4.1.4 Regression *Analysis*

A further concept, called regression analysis, is used during the analysis of the data. This is also a very vital step in the estimation of the form of relationship between variables, whether independent or dependent variables, which is directly proportional or indirectly proportional. For our variables in this sample, we used a linear regression study. The most important and accurate data can be given by such findings when obtained from this whole process.

Model Summary								
			Adjusted R	Std. Error of				
Model	R	R Square	Square	the Estimate				
1	.780 <sup>a</sup>	.608	.603	.50084				
a. Predictors: (Constant), Innovation Capabilities								

As the value of R indicates a clear correlation. According to the results, the value of R is 0.780 (78 per cent) provides a good indicator of a high degree of correlation between creativity (independent variables) and risk control (dependent variable). Similarly, R2 indicates the degree to which "Risk Management" can be clarified by "Innovation Capacity." Additionally, R<sup>2</sup> may also be regarded as the percentage of change in the dependent variable induced by the independent variables. Regarding this study, R<sup>2</sup> is 0.608 (60.8%) which is very high. On the

other hand, Adjusted  $R^2$  shows how fit our model is. Therefore, when it comes to this study, Adjusted  $R^2$  is 60.3% fit, which is a good sign.

ANOVA <sup>a</sup>									
Mode	1	Sum of	df	Mean	F	Sig.			
		Squares		Square					
1	Regressio	31.155	1	31.155	124.20	.000 <sup>b</sup>			
	n				1				
	Residual	20.067	80	.251					
	Total	51.222	81						
a. Dej	pendent Varia	ble: Risk Mana	igement	1	1	1			

b. Predictors: (Constant), InnovationCapabilities

The significance level of this model is .001, that is less than .05, which itself shows that it is highly significant.

	Coefficients									
Mode	el	Unstandardized		Standardized	t	Sig.				
		Coefficie	Coefficients							
		В	Std. Error	Beta						
1	(Constant)	.182	.317		.576	.566				
	Innovation	.914	.082	.780	11.14	.000				
	Capabilities				5					
a. Dependent Variable: Risk Management										

Based on the concept, this table shows the magnitude and significance of relationship between dependent and independent variables. The offering made by Innovation capability is 78% with the significance of <.001, to risk management. Range of beta is between -1 to +1, value more near to +1 has stronger relationship which is good.

# 4.1.5 Moderation Analysis

Model Summary										
R	R	Adjusted R	Std.	Error						
	Square	Square	of	the						
			Estin	nate						
.780ª	.608	.603	.5008	34						
.805 <sup>b</sup>	.647	.638	.4781	.3						
	.780 <sup>a</sup>	R R Square .780a .608	R R Adjusted R Square Square  .780a .608 .603	R R Adjusted R Std. Square Square of Estim  .780a .608 .603 .5008						

a. Predictors: (Constant), Innovation Capabilities

In model, 1 R Square the change in risk management due to innovation capabilities is 60.8% in linear regression, also discussed earlier. However, when we add the moderating variable organizational culture then organizational resource increased from 60.8% to 60.3% as we can see in model 2 R square.

ANOVA <sup>a</sup>									
		Sum of							
Mode	1	Squares	df	Mean Square	F	Sig.			
1	Regression	31.155	1	31.155	124.201	.000 <sup>b</sup>			
	Residual	20.067	80	.251					
	Total	51.222	81						
2	Regression	33.162	2	16.581	72.532	.000°			
	Residual	18.060	79	.229					
	Total	51.222	81						
a. Dep	endent Varial	ole: Risk Manag	gement		I	1			
b. Pre	dictors: (Cons	tant), Innovation	nCapabil	ities					

b. Predictors: (Constant), Innovation Capabilities,
Innovationcapxreasource

c. Predictors: (Constant), InnovationCapabilities, Innovationcapxreasource

The significance level of this model is .001, that is less than .05, which itself shows that it is highly significant.

			Coefficients			
		Unstanda	ardized	Standardized		
		Coefficie	ents	Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.182	.317		.576	.566
	InnovationCapabilities	.914	.082	.780	11.145	.000
2	(Constant)	.744	.357		2.085	.040
	InnovationCapabilities	.520	.154	.444	3.374	.001
	Innovationcapxreasour	.063	.021	.390	2.963	.004
	ce					
a. Dep	endent Variable: Risk Ma	anagemen	t	_ I		<u> </u>

The contribution made by innovation capabilities was 78% to risk management but when added organizational culture, it decreased to 48.5% and the value is remaining significant .025.

	Model Summary									
Mod	R	R	Adjusted R	Std. Error of						
el		Square	Square	the Estimate						
1	.780ª	.608	.603	.50084						
2	.803 <sup>b</sup>	.644	.635	.48037						
a. Pred	dictors: (Co	onstant), Inr	novation Capabi	ilities						
b. Predictors: (Constant), Innovation Capabilities,										
innova	innovationcapxculture									

In model, 1 R Square the change in risk management due to innovation capabilities is 60.8% in linear regression, also discussed earlier. However, when we add the moderating variable organizational culture then Risk management increased from 60.8% to 64.4% as we can see in model 2 R square.

	ANOVAs									
Mode	el	Sum of	df	Mean	F	Sig.				
		Squares		Square						
1	Regression	31.155	1	31.155	124.201	.000 <sup>b</sup>				
	Residual	20.067	80	.251						
	Total	51.222	81							
2	Regression	32.992	2	16.496	71.487	.000°				
	Residual	18.230	79	.231						
	Total	51.222	81							
a. Dej	a. Dependent Variable: Risk Management									
b. Pre	edictors: (Const	ant), Innovation	on Capabil	ities						
c. Pre	dictors: (Const	ant), Innovatio	on Capabil	ities, innovatio	oncapxcultur	·e				

The significance level of this model is .001, that is less than .05, which itself shows that it is highly significant.

	Coefficients									
Mode	1	Unstandardized		Standardize	t	Sig.				
Co		Coefficients		d						
				Coefficient						
				S						
		В	Std. Error	Beta						
1	(Constant)	.182	.317		.576	.566				

	InnovationCapabilities	.914	.082	.780	11.145	.000				
2	(Constant)	.590	.336		1.754	.083				
	InnovationCapabilities	.558	.149	.476	3.748	.000				
	Innovationcapxculture	.063	.022	.358	2.822	.006				
a. Dep	a. Dependent Variable: Risk Management									

The contribution made by innovation capabilities was 78% to risk management but when added organizational resource, it decreased to 52% and the value is remaining significant .003.

### **Chapter 5: IMPLICATION OF RESULTS, DISCUSSIONS AND CONCLUSIONS**

Based on the results expressed above, following have been the findings in concern to the hypothesis of this study.

### 1.1 Implication of Results

Hypothesis	Status
H1. Innovation capabilities and organizational risk management are positively related.	Accepted
H2. Organizational resources and risk management are positively related.	Accepted
H3. Organizational culture and risk management are positively related.	Accepted

**Hypothesis 1** 'Innovation capability' enhanced risk control.' Correlation and regression analysis was acknowledged. In the association study, the capacity for creativity has been found to be favourably linked to risk control with a magnitude of 780. It has been shown in regression analysis that there is a substantial relationship between innovation capabilities and risk management, which indicates that increase in innovation capabilities, increases the risk management.

**Hypothesis 2** was 'The beneficial effect of the organizational resource on risk control has been acknowledged in the correlation and regression analysis. In the correlation study, the organizational resource was found to be strongly linked to risk control with a magnitude of 508. It has been shown in regression analysis that there is a substantial relationship between organizational resourceand risk management, which indicates that increase in organizational resource, increases the risk management.

**Hypothesis 3** Organizational culture has a favourable impact on risk control' was acknowledged in the association and regression analysis. In a correlation study, risk control has been found to be strongly linked to risk management with a magnitude of 518. The regression analysis indicates that there is a substantial connection between the corporate culture and the risk

management. Which indicates that increase in Organizational culture, increases the risk management.

### 1.2 Discussion

This research study has aimed to explore the relationship between innovation capabilities (independent variable), Organizational culture and Organizational resource (moderating variables) and Risk management (dependent variable), as telecom sector of Islamabad and Rawalpindi has been selected for investigating the relationship between the above variables. To collect the respondents' answers (employee working in telecom sector of Islamabad and Rawalpindi), we used an adaptive standardized questionnaire. A scale of 5% of the significance level has, however, been set to assess the acceptance and rejection of the hypotheses of this report. H1, H2, H3, H4, and H5 were accepted on the basis of the significance standard, As significance level of innovation capabilities, Organizational culture, Organizational resource and Risk management has been less than 0.05. Therefore, all research hypotheses (which were developed relevant with theoretical framework) have been accepted and proved significant. Therefore, it has been proved that there exists a positive relationship between innovation capabilities (independent variable), Organizational culture Organizational resource (moderating variables) and Risk management (dependent variable).

### 1.3 Conclusion

According to results mentioned above, it can be concluded that innovation capabilities to have a significant positive impact on performance in Telecom sector of Islamabad and Rawalpindi. In addition, it has been proved that Organizational culture and Organizational resource has a positive impact on Risk management. However, findings have also proved that Organizational culture, Organizational resources are positively moderate the relationship between innovation capabilities and Risk management in telecom sector of Islamabad and Rawalpindi. As discussed in (Chapter 1), objective of this study was to analyses the impact of innovation capabilities on Risk management with moderating effect of Organizational culture, Organizational resource in telecom sector of Islamabad and Rawalpindi. Adaptive structured questionnaires have been distributed amongst the employee working in telecom sector of Islamabad and Rawalpindi for data collection, as impact of each variable has been clearly observed in this study. To testify the relationship, innovation capabilities, Organizational culture,

Organizational resource have been empirically tested with Risk management for demographics including gender, age and qualification, found positive correlation between them. In addition, correlation analysis has shown that innovation capabilities is positively correlated with Organizational culture, organizational resource and risk management with the magnitude of .746, .618, .501, .449 and .780 respectively. Furthermore, regression analysis has revealed a significant relationship between innovation capabilities (independent variable), Organizational culture, organizational resource (moderating variables) and risk management (dependent variable) in Rawalpindi and Islamabad.

It could also be found out that the innovation capabilities are very important to manage risks. For improving organizational productivity adoption of new innovative capabilities for the relative risk is very important. From the analysis of the research study, it couldbe found that innovative capabilities creates a competitive advantage against the other competitors. The total profit and sales of the companycan be damaged by the risk. From the findings, we are accepting that innovation capabilities have the relation with the risk management. As well as organizational resources and Organizational innovative capabilities are also have the direct relation. According to this report, most of the respondents engage in innovative practises; however, the innovative potential available in the city among small and medium-sized enterprises is modest. Moreover, the presence of high creative ability will improve the financial success of small and mediumsized businesses. Low levels of creative ability, even within the high levels of strategic priorities, contribute a little to enhancing financial results. Most of Ghana's small and medium-sized companies are engaged in creative activities and a modest number are committed to strategic objectives; there is a need to develop their innovative potential to see a huge increase in their financial results. Small and medium-sized businesses should boost their creative potential. Management must regard creative capabilities as the lifeblood of their businesses. In addition, the management of small and medium-sized companies would regard strategic priorities as essential insights that would boost their financial results and use their strategies in the management of their organisations.

### 1.4 Recommendations and Future Research

Most of the elements were discussed in this research. There is still space for change, however. In this literature review, some changes may be made when conducting research in the future. Improvements may take the form of extended periods of time, different industry, variables changed, additional variables, sample size extended, etc. In the future, the time-frame for a comprehensive research study may be expanded. The researcher must be given enough time to perform this comprehensive study, since it will assist in obtaining responses from employees who work in telecom sector of Islamabad and Rawalpindi. In addition, this study has been carried out in the telecommunications field, as it can be carried out in any sector of Pakistan other than telecommunications. In addition, three types of variables (such as dependent, moderating, and independent) were used in this research and a mediating variable was not used. In order to provide a thorough analysis of the relationship between variables in this study, a mediating variable should also be added to the study. Finally, it is possible to increase the sample size to perform this analysis in a more appropriate way.

### **References**

- Alejandro Germán Frank, L. S. (2019). Industry 4.0 technologies: implementation patterns in manufacturing companies. *International Journal of Production Economics*.
- Alnaqbi, W. (2011). The relationship between human resource practices and employee retention in public or etention in public organisations: an explor ganisations: an exploratory study y study conducted in the United Arab Emirates. *Research online*.
- Anil K. Gupta, P. E. (2007). Innovation At and Across Multiple Levels of Analysis. Organization Science.
- Anirban Ganguly, A. T. (2019). Evaluating the role of social capital, tacit knowledge sharing, knowledge equality and reciprocity in determining innovation capability of an organization. *JOURNAL OF KNOWLEDGE MANAGEMENT*, 1105-1135.
- Anjum, Z. (2014). Startup Capitals: Discovering the Global Hotspots of Innovation. *Random House India, New Delhi*.
- Barney, J. (2001). Is the resource-based 'view' a useful perspective for strategic management research? Yes. Academy of Management Review, Vol. 26 No. 1., 41-56.
- BENN LAWSON, D. S. (2001). DEVELOPING INNOVATION CAPABILITY IN ORGANISATIONS: A DYNAMIC CAPABILITIES APPROACH. *International Journal of Innovation Management Vol. 5, No. 3*, 377-400.
- Cantwell, J. (2017). Innovation and international business. *Industry and Innovation*, 41-60.
- Chen, M.-F. S.-C.-H.-F. (11 july 2018). Innovation capability configuration and its influence on the relationship between perceived innovation requirement and organizational performance.
- Cheng Tseng, C.-C. T. (2 February 2019). Corporate entrepreneurship as a.
- Choi, Y. K. (2016). The role of a large competitor's entry and level of innovativeness in consumer adoption of new products. *Asia Pacific Journal of Innovation and Entrepreneurship*, 168-182.
- Christina E. Shalley, L. L. (2017). Interactive Effects of Growth Need Strength, Work Context, and Job Complexity On Self-Reported Creative Performance. *Academy of Management Journal*.
- Chul Hyun Uhm, C. S. (2018). Understanding the accelerator from resources-based perspective. *Asia Pacific Journal of Innovation and Entrepreneurship*, 258-278.
- Cortimigli, A. P. (2017). A systematic review of risk management in innovation-oriented firms. *Journal of Risk Research, DOI:* 10.1080/13669877.2017.1382558. Retrieved from Journal of Risk Research, DOI: 10.1080/13669877.2017.1382558.
- Dale A. Cake, A. (2019). Strategic orientations, marjeting capabilities and radical innovation launch success. *Journal of Business & Industrial Marketing*, 1.

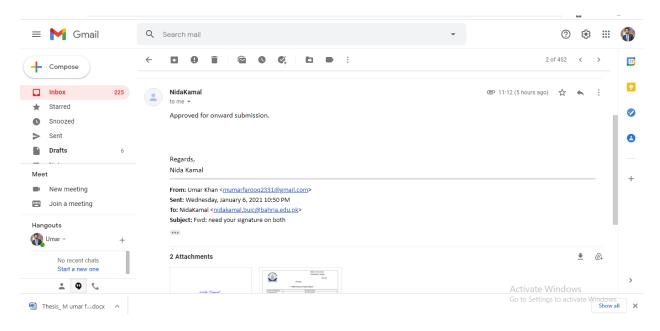
- Ellinger., S. O. (1997). Resource-based theory and strategic logistics research. *International Journal of Physical Distribution & Logistics Management, Vol. 27 No. 9/10.*, 559-587.
- Fahim, M. G. (2018). Strategic human resource management and public employee retention. *Review of Economics and Political Science*, 20-39.
- Fletcher, A. (2017). Applying critical realism in qualitative research: methodology meets method. International Journal of Social Research Methodology, 20(2), , 181-194.
- Geissdoerfer, M. V. (2018). Sustainable business model innovation. *Journal of cleaner production*.
- Green, S. B. (2010). How Many Subjects Does It Take To Do A Regression Analysis. *Multivariate Behavioral Research*, 499-510.
- Guimaraes, M. P. (2019). Dimensions that influence the innovation process in justice organizations. *Innovation & Management Review*, 2515-8961.
- Hacklin, F. B. (2018). How firms reel in migrating value. Long range planning,. *Strategies for business model innovation*, 82-110.
- Hanafi, M. (2019). UPP STIM YKPN, Yogyakarta. Manajemen Risiko, Edisi Kedua.
- Hulin, C. N. (2001). Can a Reliability Coefficient Be Too High? Journal of Consumer Psychology, 55-58.
- Iqbal, S. &. (2015). Impact of perceived organizational support on employee retention with mediating role of psychological empowerment. *Pakistan Journal of Commerce and Social Sciences*, 18-34.
- Iswajuni Iswajuni, A. M. (2018). The effect of enterprise risk management (ERM) on firm value in manufacturing companies listed on Indonesian Stock Exchange year 2010-2013Exchange year 2010-2013. *Asian Journal of Accounting Research Vol. 3 No. 2*, 224-236.
- Jacob Donkor, G. N.-K. (20 May 2018). Innovative capability, strategic.
- John Hauser, G. J. (2006). Research on Innovation: A Review and Agenda for Marketing Science. *Marketing Science*, 551-765.
- Joy Furnival, R. B. (2019). A dynamic capabilities view of improvement capability. *Journal of Health Organization and Management*, 821-834.
- Junior, S. C. (2018). Portfolio construction and risk management: theoryve rsus practice. *RAUSP Management Journal*, 2531-0488.
- Kumar, R. (2019). Research methodology: A step-by-step guide for beginners. *Sage Publications Limited*.
- Kungu, G. D. (2014). An assessment of the effectiveness of competitive strategies by commercial banks: a case of equity bank. *International Journal of Education and Research*, 333-346.

- Ledford, J. a. (2018). Single case research methodology: Applications in special education and behavioral sciences. *Routledge*.
- Lindahl, A. A. (2019). Dynamic Capabilities and Risk Management: Evaluating the CDRM Model for Clients. *Emerald Reach Proceedings Series*, 85–92.
- Lu Chen, W. Z. (2016). Transformational leadership, social capital and organizational innovation. Leadership & Organization Development Journal, 843-859.
- Malkah Noor Kiani, S. H. (28 January 2019). Does innovation capabilities affect.
- McCusker, K. a. (2015). Research using qualitative, quantitative or mixed methods and choice based on the research. *Perfusion*, *30*(7), 537-542.
- Michael Wang, S. A. (2019). Logistics innovation capability and its impacts on the supply chain risks in the Industry 4.0 era. *Modern Supply Chain Research and Applications Emerald Publishing Limited*, 2631-3871.
- Miles. ((1993)).
- Miller, D. (2017). Challenging trends in configuration research: where are the configurations? *Strategic organization*.
- Ming-Feng Su and Kuo-Chih Cheng, S.-H. C. (11 July 2018). Innovation capability.
- Mohammed Saleh Alosani, R. Y.-D. (2019). The effect of innovation and strategic planning on enhancing organizational performance of Dubai Police. *Innovation & Management*, 2515-8961.
- Moore, G. (2005). Dealing with Darwin: How Great Companies Innovate at Every Phase of Their Evolution. *Penguin Group, New York.*
- Neil Anderson, K. P. (2014). Innovation and Creativity in Organizations: A State-of-the-Science Review, Prospective Commentary, and Guiding Framework. *Journal of Management*, Neil Anderson.
- Nguyen, H. T. (2018). Towards human resource development at Hanoi Open University. *Asian Association of Open Universities Journal*, 223-235.
- Olimpia C, R. A. (2019). When do customer orientation and innovation capabilities matter? An investigation of contextual impacts. *Investigation of contextual impacts*, 12.
- Paul Shum, U. o. (dec 18 2020). A diagnostic tool. A diagnostic tool.
- Paulo Antônio Zawislak and Edi Madalena Fracasso, J. T.-G. (26 February 2017). Technological intensity.
- Phan, T. T. (2019). Does organizational innovation always lead to better performance? A study of firms in Vietnam. *Journal of Economics and Development*, 71-82.

- Roger J Calantone, S. Y. (2002). Learning orientation, firm innovation capability, and firm performance. Industrial Marketing Management, 515-524.
- Siahaan, H. (2009). Manajemen Risiko pada Perusahaan dan Birokrasi, PT Gramedia, Jakarta.
- Sicotte, H. D. (2014). Innovation portfolio management as a subset of dynamic capabilities: measurement and impact on innovative performance". *Project Management Journal, Vol. 45 No. 6*, 58-72.
- Steven Cranfield, J. H. (2015). Investigating healthcare IT innovations: a "conceptual blending" approach. Journal of Health Organization and Management, 1131-1148.
- Sung Min Kim, G. A. (2019). Resource co-specialization in outsourcing of enterprise systems software. Journal of Science and Technology Policy Management, 1015-1046.
- SyedHussain Mustafa MehboobAhmad. (28 january 2019). Doesinnovationcapabilitiesaffect thenewserviceinnovation successamongPakistani cellularcompanies.
- Tessa Avermaete, J. V. (2003). Determinants of innovation in small food firms. *European Journal of Innovation Management*, 1460-1060.
- Thomas Michael Brunner-Kirchmair, M. W. (2019). Knowledge is power conceptualizing collaborative financial risk assessment. *The Journal of Risk Finance*, 226-248.
- Vasquez, D. (2014). Employee retention for economic stabilization: A qualitative phenomenological study in the hospitality sector. *International Journal of Management, Economics and Social Sciences*, 1-17.
- Wong, C. A. (2013). Authentic leadership, performance, and job satisfaction: the mediating role of empowerment. *Journal of advanced nursing*, 947-959.
- Zhan Su, J. T. (2016). Product innovation, cost-cutting and firm economic performance in the post-crisis context: Canadian micro evidence. *Journal of Centrum Cathedra: The Business and Economics*, 4-26.

# **Appendix**

# **Supervisor Thesis Approval:**



# **Progress Report:**



# Bahria University Islamabad Campus

RC-04

### MBA/BBA

# 1st Half Semester Progress Report

Name of Student(s)	M Umar Farooq
Enrollment No.	01-321192-037
Thesis/Project Title	The Impact of innovation capabilities on risk management in SME's: The
	contingent role of organizational culture.

# Supervisor Student Meeting Record

No.	Date	Place of Meeting	Topic Discussed	Student
				Signature
1	12-Oct-20	In Campus	Topic Selection	(Umar)
2	26 oct-20	Online Zoom Meeting	Introduction and structure discussion of thesis	(Umar)
3	2-Nov-20	Online Zoom Meeting	Discussion regarding Literature Review	(Umar)
4	11-Nov-20	Online Zoom Meeting	Methodology Discussion	(Umar)

Progress Satisfactory Remarks:	Progress Uns	,	
Signature of Supervisor: Name: Nida Kamal	Nida Kamal	Date: 28/12/20	



# Bahria University Islamabad Campus

RC-04

### MBA/BBA 2<sup>nd</sup> Half Semester Progress Report & Thesis Approval Statement

Name of Student(s)	M Umar Farooq
Enrollment No.	01-321192-037
Thesis/Project Title	The Impact of innovation capabilities on risk management in SME's: The
	contingent role of organizational culture.

### Supervisor Student Meeting Record

Signature of Supervisor: Name: Nida Kamal

No.	Date	Place of Meeting	Topic Discussed	Student Signature
5	23-Dec-20	Online Zoom Meeting	Questionnaire Development	(Umar)
6	26-Dec-20	Online Zoom Meeting	Data Analysis and Conclusion	(Umar)
7	28-Dec-20	Online Zoom Meeting	Finalizing the document	(Umar)

APPROVAL FOR EXAMINATION
Candidates' Name: M Umar Farooq, Enrollment No: 01-321192-037
Thesis Title: The Impact of innovation capabilities on risk management in SME's: The contingent role of organizational culture.
I hereby certify that the above candidate's thesis has been completed to my satisfaction and, to my belief,
its standard appropriate for submission for examination. I have also conducted plagiarism test of this thesis
using HEC prescribed software and found similarity index at that is within the permissible limit set
by the HEC for thesis MBA. I have also found the thesis in a format recognized by the department of
Business Studies.
Signature of Supervisor: Nida Kamal Date: 28/12/20

Page 54 | 55

# **Plagiarism Report:**

