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**College of Business  
administration**



**Department of  
Management &  
Marketing**

# **Corporate Entrepreneurship and Organizational Performance of SME's In Bahrain**

A Thesis Submitted in Partial Fulfilment of the Requirements for the  
M.B.A. degree in Business Administration

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## **Abstract**

There has been evidence that SMEs that practice and adopt Corporate Entrepreneurship can promptly react and anticipate changes and achieve better performance. In Bahrain, SMEs make up 99% of all commercial establishments registered in Bahrain (BNA, 2015) which account for about 30% of the Bahraini economy (MOIC,2019), and the kingdom has been offering it support to developing the SMEs sector and Entrepreneurship.

Although the kingdom has ongoing initiatives to support entrepreneurship, there is the lack of evidence regarding the impact of Corporate Entrepreneurship on Organizational Performance of SMEs in Bahrain. Therefore, the Research main aim is to Explore the relationship between Corporate Entrepreneurship and Performance of Bahraini SMEs. With the intent to develop a framework for proper application of corporate Entrepreneurship in SMEs.

The researcher utilized a model from previous literatures to examine the relationship between Corporate Entrepreneurship and the organizational performance of SMEs and formulate hypotheses to be tested. A quantitative research approach has been chosen to achieve the research objectives, and data collected via online questionnaire. Non-probability purposive sampling technique was used over two rounds. the sample size was 153, representing response rate of 51%. Cronbach's Alpha test revealed that all the independent and dependent variables have a high reliability, so the questionnaire has a high internal consistency. Kaiser-Meyer-Olkin (KMO) test has been applied as a factor analysis tool, and it showed that the variables have a high level of construct validity.

The research concludes that the result was consistent with the literature and has an indicated that the size and age of the SME company has no significant impact on its performance, as long as it has an Entrepreneurship Management with a focus on creating a structure and adopting a culture of Entrepreneurship "proactive, opportunity-driven, and action-oriented" supported by a strong Reward Philosophy. Overall, there is a positive relationship between Corporate Entrepreneurship and SMEs overall performance, as it will allow employees to have the autonomy and will defiantly be innovative, which will lead to an enhanced company performance.

The research recommends SMEs to examine their culture and structure, facilitate employee's autonomy, and create a rewarding system.

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# Table of Contents

|                                                     |    |
|-----------------------------------------------------|----|
| Defense committee's approval.....                   | A  |
| Abstract .....                                      | B  |
| Acknowledgment .....                                | C  |
| Table of Contents .....                             | D  |
| List of Figures .....                               | H  |
| Chapter 1: Introduction .....                       | 1  |
| 1.1 The Concept of Corporate Entrepreneurial .....  | 1  |
| 1.2 Research Problem.....                           | 2  |
| 1.3 Research Objectives .....                       | 3  |
| 1.4 Summary of Theoretical Framework .....          | 3  |
| 1.5 Research Design and Methodology.....            | 4  |
| 1.6 Assumptions and Limitations of the Study .....  | 5  |
| 1.7 Thesis Structure.....                           | 6  |
| Chapter 2: Literature Review.....                   | 8  |
| 2.1 Introduction .....                              | 8  |
| 2.2 SMES IN BAHRAIN .....                           | 10 |
| 2.3 CORPORATE ENTREPRENEURSHIP .....                | 11 |
| 2.3.1 DEFINITION OF CONCEPTS .....                  | 11 |
| 2.3.2 FORMS OF CORPORATE ENTREPRENEURSHIP .....     | 13 |
| 2.4 DIMENSIONS OF ENTREPRENEURIAL ORIENTATION ..... | 17 |
| 2.4.1 Innovativeness .....                          | 17 |
| 2.4.2 Risk Management.....                          | 17 |
| 2.4.3 Pro-activeness .....                          | 18 |
| 2.4.4 Autonomy .....                                | 18 |
| 2.4.5 Competitive Aggressiveness.....               | 19 |
| 2.5 CONSTRUCT OF ENTREPRENEURIAL MANAGEMENT .....   | 20 |
| 2.5.1 Strategic Orientation.....                    | 20 |
| 2.5.2 Management Structure.....                     | 20 |
| 2.5.3 Entrepreneurial Culture .....                 | 21 |
| 2.5.4 Resource Orientation .....                    | 21 |

|                                                                             |    |
|-----------------------------------------------------------------------------|----|
| 2.5.5 Reward Philosophy .....                                               | 22 |
| 2.6 THEORIES, MODELS, AND FRAMEWORKS ON CORPORATE<br>ENTREPRENEURSHIP ..... | 22 |
| 2.7 CORPORATE ENTREPRENEURSHIP IMPACT ON SME’S PERFORMANCE<br>.....         | 27 |
| CHAPTER 3: THEATRICAL FRAMEWORK AND RESEARCH METHODOLOGY                    | 31 |
| 3.1. INTRODUCTION.....                                                      | 31 |
| 3.2. RESEARCH PROBLEM .....                                                 | 31 |
| 3.3. RESEARCH OBJECTIVES .....                                              | 32 |
| 3.4. THEORETICAL FRAMEWORK .....                                            | 32 |
| 3.4.1 Dependent Variable: SMEs’ Performance .....                           | 32 |
| 3.4.2 Independent Variables: Corporate Entrepreneurship .....               | 33 |
| 3.4.3 Moderating Variables .....                                            | 38 |
| 3.5. SCHEMATIC DIAGRAM OF THE THEORETICAL FRAMEWORK OF THE<br>STUDY.....    | 40 |
| 3.6. RESEARCH QUESTIONS.....                                                | 41 |
| 3.7 RESEARCH HYPOTHESES .....                                               | 41 |
| 3.8. RESEARCH DESIGN AND METHODOLOGY.....                                   | 43 |
| 3.8.1 RESEARCH PARADIGM AND CLASSIFICATIONS.....                            | 44 |
| 3.8.2 POPULATION, SAMPLE SIZE AND SAMPLING TECHNIQUE.....                   | 45 |
| 3.8.3 DATA COLLECTION METHOD.....                                           | 46 |
| 3.8.4 DATA ANALYTICAL APPROACHES .....                                      | 48 |
| CHAPTER 4: DATA ANALYSIS, FINDINGS, AND DISCUSSION .....                    | 51 |
| 4.1    DESCRIPTIVE DATA ANALYSIS .....                                      | 52 |
| 4.1.1    Reliability Analysis.....                                          | 52 |
| 4.1.2    Factor Analysis .....                                              | 56 |
| 4.1.3    Demographics Analysis .....                                        | 62 |
| 4.1.4    Theoretical Framework Questions.....                               | 66 |
| 4.1.5    Theoretical Framework Variables.....                               | 71 |
| 4.2    INFERENTIAL DATA ANALYSIS.....                                       | 72 |
| 4.2.1    Normality Test .....                                               | 72 |
| 4.2.2    Correlation Analysis .....                                         | 74 |
| 4.2.3    Regression Analysis.....                                           | 77 |

|                                                 |                                              |     |
|-------------------------------------------------|----------------------------------------------|-----|
| 4.3.4                                           | Moderating Analysis .....                    | 83  |
| 4.3                                             | Discussion of The Findings .....             | 87  |
| 4.3.1                                           | Entrepreneurial Orientation Dimensions ..... | 87  |
| 4.3.2                                           | Entrepreneurial Management Constructs.....   | 88  |
| 4.3.3                                           | Moderating Variables.....                    | 88  |
| CHAPTER 5: CONCLUSION AND RECOMMENDATIONS ..... |                                              | 90  |
| 5.1                                             | Introduction.....                            | 90  |
| 5.2                                             | Conclusion .....                             | 90  |
| 5.3                                             | Recommendation .....                         | 92  |
| 5.4                                             | Future Work .....                            | 93  |
| References.....                                 |                                              | 94  |
| Appendix A.....                                 |                                              | 101 |
| Appendix B.....                                 |                                              | 105 |

## List of Tables

|                                                                             |    |
|-----------------------------------------------------------------------------|----|
| Table 1: SMEs in Bahrain.....                                               | 45 |
| Table 2: Innovation Cronbach's Alpha Coefficient.....                       | 53 |
| Table 3:Pro-activeness Cronbach's Alpha Coefficient.....                    | 53 |
| Table 4: Risk Management Cronbach's Alpha Coefficient.....                  | 54 |
| Table 5:Autonomy Cronbach's Alpha Coefficient.....                          | 54 |
| Table 6: Strategic & Resource Orientation Cronbach's Alpha Coefficient..... | 54 |
| Table 7:Management Structure and Culture Cronbach's Alpha Coefficient.....  | 55 |
| Table 8:Reward Philosophy Cronbach's Alpha Coefficient.....                 | 55 |
| Table 9: SME Performance Cronbach's Alpha Coefficient .....                 | 56 |
| Table 10: KMO and Bartlett's Test .....                                     | 56 |
| Table 11: Total Variance Explained .....                                    | 57 |
| Table 12: Rotated Component Matrix.....                                     | 60 |
| Table 13: Descriptive Statistics of Model Questions.....                    | 66 |
| Table 14: Descriptive Statistics of Computed Variables .....                | 71 |
| Table 15: Normality Test for the Theoretical Framework Variables .....      | 73 |
| Table 16: Spearman's rho Correlation Test.....                              | 74 |
| Table 17: R Square and ANOVA Analysis for the Regression Model.....         | 78 |
| Table 18: Coefficient of the Stepwise Regression Models.....                | 78 |
| Table 19: R Square and ANOVA Analysis for the Regression Model.....         | 80 |
| Table 20: Coefficient of the Regression Models .....                        | 81 |
| Table 21: R Square and ANOVA Analysis for the Regression Model.....         | 82 |
| Table 22: Coefficient of the Regression Models .....                        | 82 |
| Table 23: Regression Model Summary.....                                     | 83 |
| Table 24: ANOVA Model Summary.....                                          | 84 |
| Table 25: Coefficient Model Summary .....                                   | 84 |
| Table 26: Regression Model Summary.....                                     | 85 |
| Table 27: ANOVA Model Summary.....                                          | 85 |
| Table 28: Coefficient Model Summary .....                                   | 85 |

## List of Figures

|                                                                                                                                                                                                                                       |    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Figure 1: Proposed Model.....                                                                                                                                                                                                         | 4  |
| Figure 2: Data analytical approaches .....                                                                                                                                                                                            | 5  |
| Figure 3: Conceptual definition of Corporate Entrepreneurship .....                                                                                                                                                                   | 12 |
| Figure 4: A strategic management perspective model of CE by Guth and Ginsberg (1990).....                                                                                                                                             | 23 |
| Figure 5: The Covin and Slevin (1991) model for corporate entrepreneurship.....                                                                                                                                                       | 23 |
| Figure 6: The zahra (1993) model for corporate entrepreneurship.....                                                                                                                                                                  | 24 |
| Figure 7: The Lumpkin and Dess (1996) model for corporate entrepreneurship .....                                                                                                                                                      | 25 |
| Figure 8: Indicators of Organizational Entrepreneurship, Indicators of Organizational Performance (Fox, 2005) .....                                                                                                                   | 26 |
| Figure 9: model by (Moghaddama, Khorakianb, & Yaghoob, 2015).....                                                                                                                                                                     | 27 |
| Figure 10: Non-Financial Indicator Performance Satisfaction (Fox, 2005) .....                                                                                                                                                         | 33 |
| Figure 11: Conceptual definition of Corporate Entrepreneurship .....                                                                                                                                                                  | 34 |
| Figure 12: Conceptual definition of Entrepreneurial Orientation.....                                                                                                                                                                  | 34 |
| Figure 13: Conceptual definition of Corporate Entrepreneurial Management .....                                                                                                                                                        | 36 |
| Figure 14: Proposed Model of “The Effect of Corporate Entrepreneurship on Organizational Performance of SME’s In Bahrain”, Modified from (Moghaddam, Khorakian, & Maharati (2015), Fox (2008), and The Lumpkin and Dess (1996)) ..... | 40 |
| Figure 15: Data analytical approaches .....                                                                                                                                                                                           | 48 |
| Figure 16: Screen Plot of the component with Eigenvalues .....                                                                                                                                                                        | 59 |
| Figure 17: Gender Distribution of the Sample.....                                                                                                                                                                                     | 62 |
| Figure 18: Position Distribution of the Sample .....                                                                                                                                                                                  | 63 |
| Figure 19: Age of the Company Distribution of the Sample .....                                                                                                                                                                        | 64 |
| Figure 20: Number of Employee Distribution of the Sample.....                                                                                                                                                                         | 65 |

## **Chapter 1: Introduction**

This chapter introduces the research and provide a general overview about the study, it provides a brief about the concept of Corporate Entrepreneurship, the research problem and objectives, a summary of the conceptual model used in the research, the research questions, the methodology employed and research design used, the research limitations, and finally the structure of the thesis.

### **1.1 The Concept of Corporate Entrepreneurial**

Entrepreneurship, the pathway to competitive advantage and improved performance (Kuratko, Ireland & Hornsby, 2001), the phenomenon that has gained significant growth and attention and has been the corner stone for developing the research concept “Corporate Entrepreneurship”.

Since the 1980s this concept of Corporate Entrepreneurship has been acknowledged through the work of Burgelman (1983), Miller (1983), and Pinchot's (1985) as a significant element on SMEs outcome. There have been multiple terms to refer to this phenomenon such as: corporate venturing (Burgelman, 1983); intrapreneurship (Pinchot 1985); corporate entrepreneurship (Guth & Ginsberg, 1990); internal corporate entrepreneurship (Jones & Butler, 1992); new venture and internal corporate venturing (Ferreira,2002); and strategic entrepreneurship (Hitt et al., 2011).

There are many definitions of corporate entrepreneurship, each depends on the researcher's perspectives. For instance, used as a term to describe the entrepreneurial behavior inside the organization (Morris and Kuratko, 2002). On the other hand, it can be defined as the process that maintain the same structure while personnel within the organization tries to innovate to create a new or a better organization (Sharma and Chrisman ,1999).

In this research, corporate entrepreneurship has been operationalized into two main concepts: entrepreneurial orientation and entrepreneurial management. There are many theories that assures the need to examine and assessing the multidimensional structure of corporate entrepreneurship as encompasses both entrepreneurial Orientation and entrepreneurial Management. By analyzing, nurturing and advancing these corporate

dimensions, managers can make significant improvements in performance of their organizations (Lumpkin & Dess, 1996; 2001; Sharma & Chrisman, 1999).

According to Ministry of Commerce (Oct 2019), there are 83,740 SMEs in Bahrain and they account for about 30% of the Bahraini economy (OECD, 2018). And as, many scholars have found that Corporate Entrepreneurship in SMEs have a positive impact on the firm performance (Neinger, 2010; Rego, 2011; Wasti, 2002; Dess, 1996; Wood et al., 2008). And with no prior studies on Corporate Entrepreneurship in Bahrain, SME's seemed the most appropriate type of organizations to focus on. As, SMEs are the product of entrepreneurial mindsets and considered as a key source of innovation and economic growth (Schelmelter, 2010).

## **1.2 Research Problem**

There has been evidence that the SMEs that practice and adopt Corporate Entrepreneurship can promptly react and anticipate to changes and achieve better performance. SME can adapt more easily to change, in today's international economic climate. Their size is manageable, and they can compete with large organizations utilizing technology advancement and their specialization (Sorino, 2009).

In Bahrain SMEs account for about 30% of the Bahraini economy (MOIC, 2019). SMEs make up 99% of all commercial establishments registered in Bahrain (BNA, 2015). SMEs are facing multiple challenges to growth (Ashoor, 2013). and, There is no prior studies on Corporate Entrepreneurship or any other GCC countries.

Although the kingdom has ongoing initiatives to support entrepreneurship, there is the lack of evidence regarding the impact of Corporate Entrepreneurship on Organizational Performance of SMEs in Bahrain. Therefore, the Research main aim is to Explore the relationship between Corporate Entrepreneurship and Performance of Bahraini SMEs. With the intent to develop a framework for proper application of corporate Entrepreneurship in SMEs.

### 1.3 Research Objectives

The main objective of this research is to assess the impact of Corporate Entrepreneurship on Organizational Performance of SMEs in Bahrain for the purpose of developing a framework for proper application of corporate Entrepreneurship in SMEs. and the minor objectives are to assess the levels of Entrepreneurial Orientation and Entrepreneurial Management in Bahraini SME's.

### 1.4 Summary of Theoretical Framework

The framework of this research is adopted from adapted from Julie M. Fox, 2005 "Indicators of Organizational Entrepreneurship" and The Lumpkin and Dess ,1996 "model for corporate entrepreneurship".

Corporate Entrepreneurship can be described as a holistic view of the enterprises that encourages creative strategic processes within the organization, through Entrepreneurial orientation and Entrepreneurial management. Thus, the proposed model in this research, operationalized Corporate Entrepreneurship into two constructs: Entrepreneurial orientation and Entrepreneurial management and study the relationship of these two constructs on the performance of SMEs in Bahrain.

The following are the variables in the conceptual model:

1- **dependent variable "Organizational Performance"**: for this research, the performance were measured using Non-Financial Performance Satisfaction, which can be measured through a series of six items indicating satisfaction with performance in SMEs during the past three years, which summed into a single non-financial performance index (Fox, 2005).

2- **independent variables:**

- **Entrepreneurial Orientation:** measured through four of its dimensions; innovation; risk management; pro-activeness; and autonomy.
- **Entrepreneurial management:** measured through its constructs; strategies and resource management; management structure and culture; reward philosophy.

3- **Moderating variables:** the variables that may affect the relationship between independent and dependent variable. The model has four moderating variables: **government support, government regulation, company size, and company age**. Both government support and government regulation were considered constant; as kingdom of Bahrain has the same support for SMEs and all SMEs within the same sector have the same regulation.

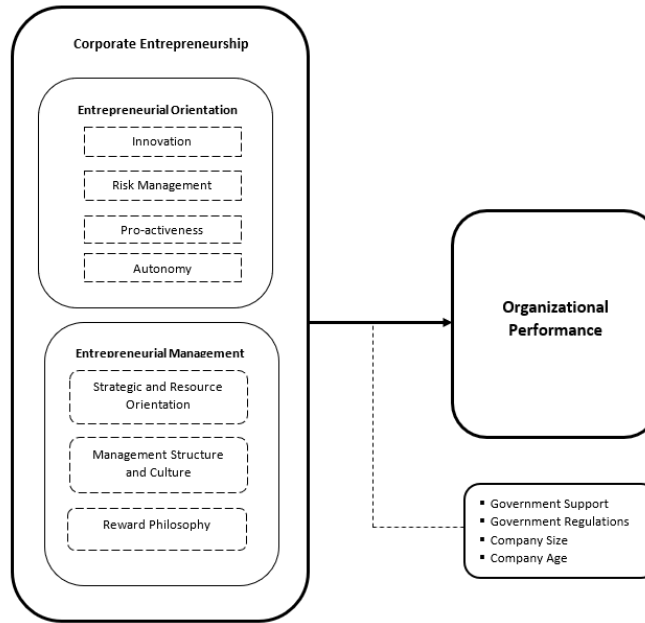


**Figure 1: Proposed Model**

## 1.5 Research Design and Methodology

A quantitative research approach has been chosen to achieve the research objectives stated above, as it provides multiple instruments to analyze the gathered data using statistical procedures. The purpose of the research is descriptive and analytical. A descriptive research will allow to describe and learn about Corporate Entrepreneurship and its relationship to the performance of SMEs in Bahrain. The research, which is descriptive in nature, will aid in understanding the effect of entrepreneurial orientation dimensions and entrepreneurial management constructs on the overall SMEs performance. In addition, the purpose of this research is also analytical. It analyzes the gathered data to help answer the research questions and test the hypothesis between the variables.

The researcher used a self-administered survey as the data collection method, where the questionnaire had four sections and was mostly based on 5 Likert scale statements. Both, electronic and paper survey were used. The research sample consisted of 300 SMEs, out of the targeted sample only 153 responses received, representing response rate of 51%. Therefore, the sample size of this study is 153 employees.

The responses of both online and paper survey were imported into IBM SPSS to be processed. Both descriptive and inferential analysis tools were used.

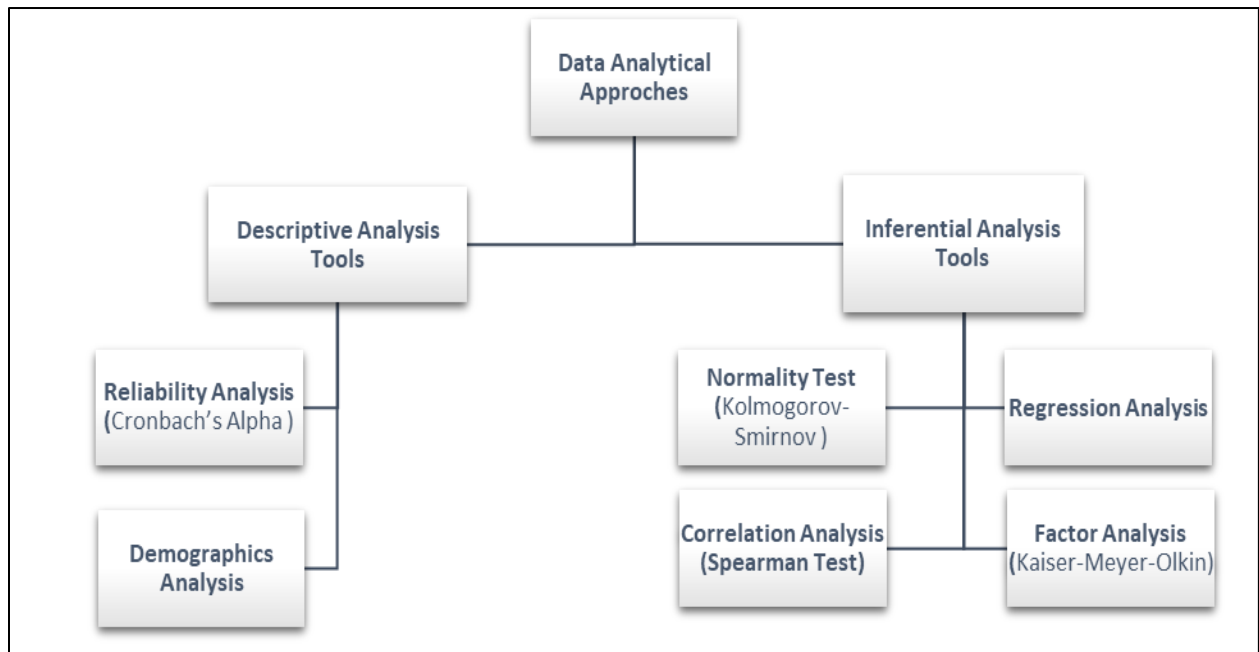


**Figure 2: Data analytical approaches**

## 1.6 Assumptions and Limitations of the Study

The research assumptions are:

- There is a relationship between variables within the proposed theoretical framework.
- government support and government regulation were considered as a constant.
- The assumption that SMEs in Bahrain practice Corporate Entrepreneurship.

The Research limitation are:

- Due to COVID-19 lockdown of most SMEs, at the time of the data collection, the sample size of the study is only 153, representing response rate of 51%. Thus, the results may not be generalized.
- The research studied the relationship between Corporate Entrepreneurship and performance of SMEs, without any regard to the specific sector of the SMEs involved in the study.
- The organizational performance variable was only measured using non-financial performance index as the financial information were difficult to obtain.
- There were no empirical studies regarding Corporate Entrepreneurship within GCC or MENA region.

## 1.7 Thesis Structure

The below section outlines the five chapters of the thesis.

**Chapter 2:** Literature Review, an overview of the concept Corporate Entrepreneurship from previous literature, highlighting the two main constructs: Entrepreneurial Orientation and Entrepreneurial Management. It further provides an outlook on models, and frameworks on Corporate Entrepreneurship. And ends with, Corporate Entrepreneurship impact on SME's performance based on previous empirical studies.

**Chapter 3:** Theoretical framework and research methodology, the first section explains the research problem, and the research objectives. Then it demonstrates the theoretical framework and the variables which was derived from the previous literature. Explaining, the research dependent variable, independent variables, moderating variables, questions and hypotheses of the research. The second part present an outline and justification for the methods used. It provides insight regarding the design of the research, the sampling technique and the sample chosen. Furthermore, the chapter discusses the data collection method.

**Chapter 4:** Data analysis, finding, and discussion. This chapter has three main sections: descriptive data analysis, inferential data analysis, and ends with discussion of the data analysis finding comparing with previous empirical studies.

**Chapter 5:** Conclusion and recommendation, the final chapter of the thesis, its summaries the research's findings, provides recommendations based on the research findings, and mentions which future work can be done within the same field.

## **Chapter 2: Literature Review**

### **2.1 Introduction**

The business environment is becoming progressively complex and uncertain in which Corporate Entrepreneurship is believed to be an essential element for the long-term success of organizations (NDUNGI, 2016). As, it allows the organizations to be more active and responsive to changes which are crucially important to the survival, profitability and growth of a company. As Corporate Entrepreneurship's activities have a tendency to stimulate creativity and innovation as and to encourage a culture of strategically planned risk-taking tactics throughout the organizational, which may strengthen the company's position in the markets and help entering new markets (Zahra, Filatotchev & Wright, 2009).

There are many definitions of corporate entrepreneurship, each depends on the researcher's perspectives. For instance, used as a term to describe the entrepreneurial behavior inside the organization (Morris and Kuratko, 2002). On the other hand, it can be defined as the process that maintains the same structure while personnel within the organization tries to innovate to create a new or a better organization (Sharma and Chrisman ,1999).

Various Authors such as Block and Macmillan (2013), and Moghaddama, Khorakianb, & Yaghoob (2015) stated that organizations need a level of innovation, speed and flexibility to survive in the dynamic and challenging environment. Thus, organization has to adopt an entrepreneurial strategy and inspire their employees to think and perform entrepreneurially (BRUNDIN, PATZELS, & SHEPHERD, 2008)

Moreover, there is no one-way to practice corporate entrepreneurship, as there are five different forms of corporate entrepreneurship: sustained regeneration, domain redefinition, organizational rejuvenation, strategic renewal, and business model reconstruction.

There are many theories that assure the need to examine and assess the multidimensional structure of corporate entrepreneurship as encompasses both entrepreneurial Orientation and entrepreneurial Management. By analyzing, nurturing and advancing these corporate dimensions, managers can make significant improvements in performance of their organizations. (Lumpkin & Dess, 1996; 2001; Sharma & Chrisman, 1999)

It is important to understand that entrepreneurial orientation has five dimensions risk-taking, innovation, pro-activeness, autonomy, and competitive aggressiveness (Dess et al., 2005, Morris et al., 2002). In addition, there are five constructs to entrepreneurial management or “mode of management”: strategic orientation, resource orientation, management structure, reward philosophy, and entrepreneurial culture and growth orientation. (Brown et al., 2001, Stevenson & Gumpert 1985; Stevenson & Jarrillo-Mossi 1986; Stevenson & Jarillo 1990).

Many scholars have found that in SMEs the effect of corporate entrepreneurship on financial performance has been positive (Daryani & Karimi, 2017; Miller, 1983; Lumpkin and Dess, 2001; Wiklund and Shepherd, 2005; Zahra and Covin, 1995; Zahra and Garvis, 2000). Moreover, in through which the organization can distinguish itself from competitors, making it more economically dynamic (Kraus et al., 2012)

Studies have shown that all of five dimensions of Entrepreneurial orientation have a positive and a significant impact on the organizational performance (Aktan & Bulut, 2008; Lassen, 2007; Lumpkin & Dess, 2001). However, a critical review of extant literature reveals that the findings concerning the relationship between corporate entrepreneurship and business performance are inconclusive (Karacaoglu et al., 2013; Rauch et al., 2009). Scholars have found that Corporate Entrepreneurship in SMEs have a positive impact on the firm performance (Neinger, 2010; Rego, 2011; Wasti, 2002; Dess, 1996; Wood et al., 2008).

Nevertheless, In Bahrain, SMEs account for about 30% of the Bahraini economy with up to 83,740 enterprises registered in the Kingdom (MOIC, 2019)., And with no prior studies on Corporate Entrepreneurship in Bahrain, SMEs seemed the most appropriate type of organizations to focus on. As, SMEs are the product of entrepreneurial mindsets and considered as a key source of innovation and economic growth (Schelmelter, 2010).

## 2.2 SMES IN BAHRAIN

Since the launch Bahrain Vision 2030 in 2008, and even before, the Kingdom through the joint efforts of Ministry of Industry and Commerce and Tamkeen Labor Fund has been known for supporting entrepreneurship and small and medium enterprises (SMEs). Today SMEs contribute 30% of the Bahraini gross domestic product (GDP) (MOIC,2019), and has been ranked 3rd in 2016 by American International Institutions for pioneering and developing SMEs.

The Ministry of Industry and Commerce have defined SMEs based on two categories, number of employees or the annual turnover of the enterprise.

| Type          | No. of Employees | Annual Turnover (BD)    | No. of CRs | Percentage |
|---------------|------------------|-------------------------|------------|------------|
| <b>Micro</b>  | Up to 5          | 1 to 50,000             | 36510      | 71%        |
| <b>Small</b>  | 6 to 50          | 50,001 to 1 Million     | 12978      | 25%        |
| <b>Medium</b> | 51 to 100        | 1,000,001 to 3 Millions | 897        | 2%         |

**Table (1):** Number of economic units by size - As on 2019-OCT-01 (MOIC,2019)

| Number of Economic units per sector<br>(count is by branch level)          | Micro         | Small         | Medium     |
|----------------------------------------------------------------------------|---------------|---------------|------------|
| <b>Total</b>                                                               | <b>69,237</b> | <b>13,670</b> | <b>833</b> |
| <b>Agriculture, animal production, and fishing</b>                         | 4,158         | 145           |            |
| <b>Mining and quarrying</b>                                                | 43            | 21            | 6          |
| <b>Manufacturing</b>                                                       | 6,392         | 1,603         | 125        |
| <b>Electricity, gas, steam and air conditioning supply</b>                 | 9             | 4             |            |
| <b>Water supply; sewerage, waste management and remediation activities</b> | 93            | 25            | 4          |
| <b>Construction</b>                                                        | 4,994         | 2,918         | 248        |
| <b>Sale/Trading Activities; repair of motor vehicles and motorcycles</b>   | 23,940        | 3,680         | 156        |
| <b>Transportation and storage</b>                                          | 1,064         | 330           | 31         |
| <b>Accommodation and food service activities</b>                           | 3,819         | 2,307         | 128        |
| <b>Information and communication</b>                                       | 1,387         | 150           | 7          |
| <b>Financial and insurance activities</b>                                  | 1,868         | 240           | 31         |
| <b>Real estate activities</b>                                              | 6,064         | 274           | 6          |
| <b>Professional, scientific and technical activities</b>                   | 6,079         | 510           | 18         |
| <b>Administrative and support service activities</b>                       | 3,517         | 601           | 42         |
| <b>Education</b>                                                           | 644           | 194           | 16         |
| <b>Human health and social work activities</b>                             | 528           | 166           | 7          |
| <b>Arts, entertainment, sports and recreation</b>                          | 314           | 38            | 1          |
| <b>Personal service activities; Repair Activities</b>                      | 4,236         | 463           | 7          |
| <b>Unspecified</b>                                                         | 88            | 1             |            |

**Table (2):** Number of Economic units per sector - As on 2019-OCT-01 (MOIC,2019)

## **2.3 CORPORATE ENTREPRENEURSHIP**

This section discusses Corporate Entrepreneurship. First, it covers the concepts within Corporate Entrepreneurship, starting from Entrepreneurship and ending with the historical development of the concept. Then, it explains the forms that Corporate Entrepreneurship can take and their definitions. The section also covers the dimension of Entrepreneurship Orientation and Constructs of Entrepreneurship Management.

### **2.3.1 DEFINITION OF CONCEPTS**

This section defines the concepts of Entrepreneurship, Corporate Entrepreneurship, Entrepreneurship Orientation, and Entrepreneurship Management.

#### **2.3.1.1 Entrepreneurship**

Entrepreneur is a French term that means “between-taker”, the concept was studied and tested by many researchers and there is no agreement on the definition of entrepreneur and its components (Beaver 2003, Hitt et al 2001, Shane 2003, Venkatarmn & Shane 2003). Shefsky (1994) says that the term can be explained out by breaking down the word into its three Latin roots, ‘entre’ meaning to ‘enter’, ‘pre’ meaning ‘before’ and ‘neur’ meaning ‘nerve center’, which describes someone who enters a business in time to form or substantially change that business’s nerve center.

It has been also defined as “The act of initiating, creating, building and expanding an enterprise or organization, building an entrepreneurial team and gathering other resources to exploit an opportunity in the market place for long term gain.” (VAN AARDT, VAN AARDT, & BEZUIDENHOUT, 2008) . Depending on this definition a small business that is aimed only at the survival of its owner cannot be seen as an entrepreneurial venture as it expects from a business to grow, expand and achieve long term financial gain.

There have been several definitions of this term “Entrepreneurship”. Morris & Kuratko (2002) explained entrepreneurship behavior in small and medium size enterprises (SME) as a process that encompasses risk, tendency for individual and group changes within an organization.

### 2.3.1.2 Corporate Entrepreneurship

There is no one universal definition of Corporate Entrepreneurship, as the phenomenon has a wide range of approaches and assumptions this research study operationalized Corporate Entrepreneurship using Entrepreneurial Management, Entrepreneurial Orientation constructs. Corporate Entrepreneurship can be defined as the development of new ideas within an organization, ideas that can be used to improve competitive position and increase profitability (May, 2012). It is through Corporate Entrepreneurship; organization can create value utilizing the creativity and efforts of their staff (NDUNGI, 2016).

In 2004 Karlsson et al. explained the lack of a single definition of entrepreneurship, because entrepreneurship is so broad and elusive it appears impossible that a single definition is enough. Thus, most theoretical definitions are broad in order to incorporate all variations of this diverse phenomenon.

Various scholars have different definitions of Corporate Entrepreneurship. and, for this research Corporate Entrepreneurship is defined as a process whereby corporate entrepreneurs of established large enterprises undertake product and service innovations, act proactively, compete aggressively, practice autonomy and are willing to take risk through internal and external business ventures in order to enhance their enterprises' performance (Zain and Hassan 2007). And employ an entrepreneurial management, which attempts to create a balance between innovation abilities of the organization with the efficient and effective use of resources. Tries to initiate changes and react to changes quickly and flexibly. In the course of the entrepreneurial process, the entrepreneurial manager creates new value through identifying new opportunities, attracting the resources needed to pursue those opportunities, and building an organization to manage those resources (Wickham, 2006).

It is apparent that the concept of Corporate Entrepreneurship can basically be the combination of Entrepreneurial Orientation and Entrepreneurial Management.

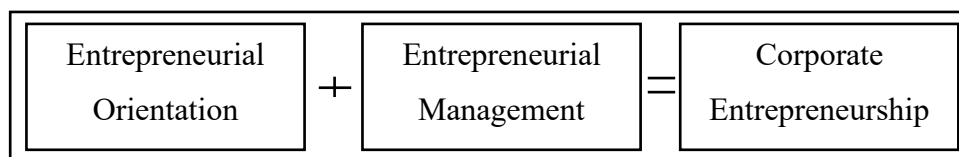


**Figure 3: Conceptual definition of Corporate Entrepreneurship**

### **2.3.1.3 Entrepreneurial Orientation**

It is the desire of an individual or an organization to take advantage of new opportunities and to assume the responsibility to produce innovative and effective change (Morris & Kuratko, 2002). Such behavior or preference known as Entrepreneurial Orientation (Lumpkin & Dess, 1996). As per the literature, Entrepreneurial Orientation has five dimensions, which are Innovation, Risk-taking, Pro-activeness, Autonomy, and Competitive Aggressiveness (Morris et al.(2002);Burns (2004); Hisrich et al.(2005); Dess et al.(2005); Antoncic et al.(2003); Lumpkin and Dess (1996)).

### **2.3.1.4 Entrepreneurial Management**

Modern definitions of entrepreneurial management tend to focus on the search for an opportunity (Brazeal, 1999; Shane and Venkataraman, 2000; Venkataraman, 1997); their common characteristics are that they define entrepreneurial management as a “mode of management” that is proactive, opportunity-driven, and action-oriented. In this regard, entrepreneurial management style evidenced by the firm’s strategic decisions and operating management philosophies.

### **2.3.2 FORMS OF CORPORATE ENTREPRENEURSHIP**

There are different forms of Corporate Entrepreneurship (Morris, Kuratko, & Covin, 2007) (RAO, 2004) (COVIN & MILES, 1999) (STOPFORD & BADEN-FULLER, 1994). In 1994, Stopford and Baden-Fuller identified three general forms of Corporate Entrepreneurship. Corporate venturing or intrapreneurship, which involves creating new business within an already existing organization. And, organization renewal, which is more pervasive activity related to the transformation or renewal of the existing organizations. Finally, Innovation or otherwise known as entrepreneurial orientation is where organization modifies the ‘rules of competition’ of its industry.

These three general types or forms, then, divided into four distinctive forms (COVIN & MILES, 1999). And in 2007, Morris et al. added Business model reconstruction next to the four forms given by Covin and Miles (1999). The following section explains each type of the Corporate Entrepreneurship forms.

Sustained regeneration seen as the most recognized and common form of Corporate Entrepreneurship and it is mostly concerned with continuous innovations (GOVENDER & Merwe, 2010) ( Sumo, 2010) (Dess, et al., 2003) . As they are often practice incremental innovation resulting in new business creation (Morris et al., 2007) ( Sumo, 2010).

Sustained regeneration organizations uses a combination of competence deployment and modification to create a steady stream of new product introductions and entering new markets (Dess, et al., 2003). Moreover, they are in constant pursuit of entrepreneurial opportunities (Covin & Miles, 1999).

Furthermore, Sustained regeneration is characterized with very low levels of formalization and centralization and a very broad span of control. ( Sumo, 2010)

Also, Domain redefinition is a form of Corporate Entrepreneurship that allows the organization to proactively create a new product market position that competitors have not sought or actively sought to exploit (Covin & Miles, 1999: 54). The main concern here is exploring what is possible rather than exploiting what is currently available. The organization redefine where and how the competitive game is played by “creating product-market arenas in which new product categories are represented” (Kuratko & Audretsch, 2009). The commitment to reenergize the organization by redefining its domain intended also to establish first mover advantages (Dess, et al., 2003) ,and then can achieve a sustainable competitive advantage when competitors follow . Domain redefinition, otherwise called the ‘Blue Oceans’ by Kim and Mauborgne (2004). By this first mover status, firms try to achieve a sustainable competitive advantage when competitors follow.

With the Domain redefinition form, organization possibly will be able to create the industry standard or set the benchmark to defeat. As the first firm to sell an offering in a new product category, the company redefining its domain is proactive and demonstrates a strong entrepreneurial orientation. (Miles, Paul, & Wilhite, 2003)

Much as sustained regeneration, domain redefinition has very low levels of formalization and a broad span of control, but Low levels of centralization. ( Sumo, 2010)

Moreover, within corporate entrepreneurship, organizational rejuvenation refers to the entrepreneurial activities made by the enterprise to sustain or improve its competitive

position by altering internal processes, structures, and capabilities (Covin and Miles, 1999; Dess et al., 2003). Organizations then, frequently work on redefining major aspects of its operations and processes, to create value for customers, and enhance its strategic implementation (Covin and Miles, 1999). Demonstrating that an organization can become more entrepreneurial by reconfiguration of value chain or the modification of pattern of internal resource allocation. As, the innovation is about enterprise's internal operations (Géraudel, Gundolf, & Missonier, 2012) (Adenfelt & Lagerstrom, 2007) (Dess, et al., 2003)

Organizational rejuvenation requires utilizing the organization existing competence as they alter the current processes. Thus, the organization requires relatively low levels of formalization and centralization and a relatively wide span of control (Sumo, 2010)

The Corporate Entrepreneurship phenomenon where organizations alter the way it competes by changing its relationship with the industry or market competitors, is called strategic renewal. (GOVENDER & Merwe, 2010) (Sumo, 2010) (Dess, et al., 2003) (COVIN & MILES, 1999)

In contrast to organizational rejuvenation, the strategic renewal form has positive intention to mediating the organization environment interface. As, it allows the organization to more profitably exploit product-market opportunities. However, it does involve major strategic and/or structural changes (Dess, et al., 2003) (KURATKO & HODGETTS, 2001). Often, this outcome can be achieved when the firm repositions itself in ways that allow simultaneous exploitation of current competitive advantages and exploration for advantages that will lead to future success (GOVENDER & Merwe, 2010) (BESSANT & TIDD, 2008)

The strategic renewal form requires the organization to engage in a moderate level of formalization, a moderate wide to a wide span of control and low to moderate levels of centralization. (Sumo, 2010)

In 2007, Morris et al added this form to Corporate Entrepreneurship as a method to transform organizations through the renewal of key ideas. As the name entails, the organizations design or redesigns its core business models to differentiate itself from

competitors or to improve operational efficiencies (Kuratko & Audretsch, 2009). Organization utilizes structural innovation to redesign its core business model, to change how it interfaces with the external market. (Johnson, 2016 )

## **2.4 DIMENSIONS OF ENTREPRENEURIAL ORIENTATION**

Scholars agree that Corporate Entrepreneurship has several dimensions Morris et al.(2002);Burns (2004); Hisrich et al.(2005); Dess et al.(2005); Antoncic et al.(2003); Lumpkin and Dess (1996). By analyzing, nurturing and advancing these corporate entrepreneurial dimensions, managers can make significant improvements in performance of their organizations. The next section will be exploring five dimensions of Corporate Entrepreneurship as defined Dess et al. (2005) and Morris et al. (2002).

### **2.4.1 Innovativeness**

Innovation been defined as the willingness to introduce newness and novelty through experimentation and creative processes aimed at developing new products and services as well as new processes (DESS & LUMPKIN, 2005). Whereas, as a dimension of corporate entrepreneurship innovation refers to product and service innovation highlighting development and innovation in technology (Morris et al., 2002) (Van Aardt et al., 2008)

As much as technological breakthrough contributes to innovation, it also depends on the gathering of small insight and advances. It deals more about ideas that are not specifically “new”, but rather have not been experimented rigorously along with formal research and development to create organizational learning.

### **2.4.2 Risk Management**

First, risk-taking need to be addressed to understand risk management. Risk-taking is willingness to commit significant resources to opportunities that involve a reasonable chance of costly failure (HORTOVÁNYI, 2012). It is an important element of entrepreneurial behavior, entrepreneurial managers can be categorized as “carefully brave” as they tend to take risk grudgingly and only after they have made courageous efforts to spread their risks on capital sources and resource providers (Stevenson, 2006).

Risk-taking been viewed as a fundamental element of entrepreneurship (Morris et al., 2002: 50). Risk, as the possibility of loss, viewed as an inherent characteristic of innovativeness, new business formation, and aggressive or proactive actions of existing firms. While there is an argument for a possible strong association of risk taking with other corporate

entrepreneurship dimensions, risk taking considered a distinctive characteristic or dimension of entrepreneurship in existing firms. Risk taking can refer to the quick pursuit of opportunities, fast commitment of resources and bold actions (Antoncic et al., 2003).

Thus, risk-management defined as the process where risks are typically: assessed, calculated and managed (Hortoványi & Szabó, 2006a; Morris & Kuratko, 2002). Instead of committing significant amount of resources at one, entrepreneurs aim to invest only small amount of resources as long as future contingencies unfold. By delaying substantial resource commitments, their potential loss kept at minimum in case a certain idea, however, does not come up to the expectations. (HORTOVÁNYI, 2012)

### **2.4.3 Pro-activeness**

The pro-activeness dimension is related to opportunism and anticipation through introducing new products and services before rivals (Moghimi, 2008). This dimension represent a forward-looking perspective characteristic of a marketplace leader that has the foresight to seize opportunities in anticipation of future demand (DESS & LUMPKIN, 2005). Moreover, the extend to which the organization has an increased understanding of the customers' needs and market's signals (visible and invisible). Moghaddam, Khorakian, & Maharati (2015).

Being the first-mover rather than being the follower is not an exclusive characteristic, though. A firm can be novel, forward thinking, and fast without always being the very first (Lumpkin & Dess, 1996). Pro-activeness reflects a willingness to be unconventional rather than rely on traditional methods of competing, for example via challenging competitor's weaknesses (Lumpkin & Dess, 1996).

### **2.4.4 Autonomy**

Autonomy refers to the independent action of an individual or a team in pursuing an idea or a vision. Overall, it means the ability and will to follow opportunities, even though factors such as resource availability, actions by competitive rivals, or internal organizational considerations may change the course of the initiative, but not sufficient to extinguish it (HORTOVÁNYI, 2012) (GOVENDER & Merwe, 2010) (Lumpkin & Dess,

1996). The autonomous person performance in accordance with a freely self-chosen and informed plan (Dess et al.,2005).

Organizations that encourage, allow their employees to make decisions about their work process, and do not criticize them for mistakes done while innovating. Can have an entrepreneurial climate, resulting in employees feeling valued for their contribution to the organization in attaining its goals and objectives. (HORTOVÁNYI, 2012) (GOVENDER & Merwe, 2010) (Anotocic et al., 2003)

Such organizations normally are Decentralize, flexible and characterize with the absence of inhibiting rules and regulations. Scholars agrees that autonomy motivates employees to act entrepreneurially, and in turn improve firm performance (Coulthard 2007; Prottas 2008; Lumpkin, Cogliser & Schneider 2009).

#### **2.4.5 Competitive Aggressiveness**

Competitive Aggressiveness been defined as “Competitive aggressiveness refers to a firm’s propensity to directly and intensively challenge its competitors to achieve entry or improve situation that is to outperform industry rivals “Lumpkin & Dess (1996). The organization may take initiatives such as implementing aggressive marketing strategies, increasing product features, or decrease the product or service prices. Typically, organizations adopt aggressive strategies to achieve economies of scale or to create more market demand. (Rahman, Civelek, & Kozubíková, 2016)

Lechner & Gudmundsson (2014) discuss how small enterprises are more exposed to the changes in the market competition and thus they must be more aggressive to beat the market competition to create a safety net for their survival. On the other hand, Moss et al. (2015) find that if micro enterprises can show a better competitive aggressiveness, it is most likely that they can be funded by banks (Zehir, Can, & Karaboga, 2015).

## **2.5 CONSTRUCT OF ENTREPRENEURIAL MANAGEMENT**

Opportunity is the core of corporate entrepreneurship (Stevenson and Jarillo, 1990). While the process of pursuing the opportunity is entrepreneurial management (Stevenson 1983). The following sections discuss the different constructs of entrepreneurial management.

### **2.5.1 Strategic Orientation**

Strategic Orientation deals with deciding what should be the major concerns of forming organizational strategy. According to Moghaddam, Khorakian, & Maharati (2015), there is a relationship between strategic orientation and entrepreneurial behavior in organization as the orientation of organization adopting an entrepreneurial behavior, as the decisions are made based on opportunity not based on the available resources (Stevenson & Jarillo, 1990) (Brown, Davidsson, & Wiklund, 2001). Strategic orientation determines whether an organization is driven more by opportunity or by resources currently controlled (Fox, 2008).

### **2.5.2 Management Structure**

There are two types of structures, each at a different end, Mechanical and organic (Burns & Stalker, 1961). Management Structure reflects the desired degree of structural organicist. Companies with more entrepreneurial approach have organic and flat structure that is composed of multiple informal networks and enable employees to freely seek opportunities. On the other hand, administrative companies possess mechanistic structure with a formalized hierarchy and clearly defined authority lines, routines, responsibilities, and systems for measuring efficiency (Brown, et al., 2001).

The size of the organization plays a critical role in shaping the structure, and as the distance between top management level and other level increase, the chance of losing connection between entrepreneurial manager with other levels in his/her firm increases (Morris & Kuratko, 2002). According to Cornwall & Perlman (1990), Entrepreneurial organization tend to establish an organic structure, a structure that has low formality, loose hierarchy & Rules, low complexity, low concentration, high flexibility, High transformation, high professionalism.

Stevenson contends that firms with an entrepreneurial approach through developing organic structures create an environment where people can freely locate and pursue opportunities. Indeed, creating loose and informal control systems, disregarding formal procedures, being allowed to use a wide range of management styles, acting based on situations and their personality, and not job description (Brown, et al., 2001)

### **2.5.3 Entrepreneurial Culture**

The culture of any organization have a significant impact on its performance (Denison,1990). Samadaqae (2003) defined Entrepreneurial culture as one with high flexibility, cooperation, independency and tendency to be customer-oriented, seeks Entrepreneurship, change, risk-taking, learning and innovation. In addition, many researchers (Kanter, 1985; Hisrich and Peters, 1986; Brazeal, 1993) have proved the impact of organizational culture on corporate entrepreneurship. Also, Ocasio (1997) state that corporate culture values seeking opportunities, experimentation, developing new ideas, and potential failures. This way, organization can distribute attention and absorptive capacity to activities for fostering corporate entrepreneurship.

### **2.5.4 Resource Orientation**

Resource orientation can be explained as the dimensions of commitment of resources and control of resources. Organizations with a comprehensive entrepreneurial approach try to reduce resource commitment by investing in a multi-stage manner and using others' resources such as financial capital, intellectual capital, skills, and competencies through subtracting, outsourcing or renting (Sakhdari, Burgers, & Davidsson, 2014).

Thus, organization can be more flexible in changing their directions and following multiple opportunities with others' help (Bradley, et al., 2011; Brown, et al., 2001). In addition, they can actively engage in identifying opportunities and pursuing them by leveraging others' resources to filling their knowledge gaps. (Chesbrough, 2007).

### **2.5.5 Reward Philosophy**

Reward Philosophy refers to how organizations with the entrepreneurial approach is creating value through seeking and exploiting opportunities, and that the compensation and promotions in these organizations are based on the success of individuals or teams in adding value to the organization. As such, compensation is value driven and performance-based in these companies. (Sakhdari, Burgers, & Davidsson, 2014).

The scholars argues that companies with an entrepreneurial reward system can more effectively take advantage from their absorptive capacity for corporate entrepreneurship. As entrepreneurial reward philosophy is based on value sharing with engaged employees and corporate entrepreneurial activities are value-creating outputs (Simsek & Heavey, 2011; Yiu, Lau, & Bruton, 2007; Yiu & Lau, 2008) the reward system is more likely to channel corporate attention and capacity towards corporate entrepreneurship.

## **2.6 THEORIES, MODELS, AND FRAMEWORKS ON CORPORATE ENTREPRENEURSHIP**

Existing theories and models of corporate entrepreneurship are vast and emphasis the different relationship of corporate entrepreneurship has with its organizational environment. Figure (2), shows the conceptual model of corporate entrepreneurship developed by Guth and Ginsberg (1990). Their model hypothesized that corporate entrepreneurship contains two phenomena; mainly “the birth of new businesses within existing organization” and secondly “the transformation of organization through renewal” ( Ali Shah, & Bhutta, 2013). Their model recognizes the environment, strategic leadership, organizational form and organizational performance as antecedents of corporate entrepreneurship, while the outcomes of corporate entrepreneurship

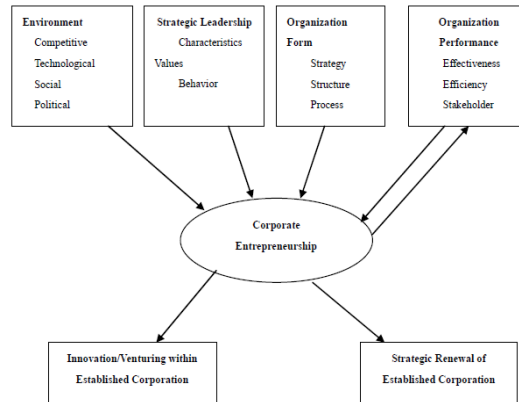


**Figure 4: A strategic management perspective model of CE by Guth and Ginsberg (1990).**

In 1991, J. G. Covin and D. P. Slevin presented their model of corporate entrepreneurship. Their model focuses on entrepreneurial orientation. The model demonstrates the connection between company's entrepreneurial posture and its three factors, external environment, strategic variables, internal variables and organizational performance. According to this model, entrepreneurial orientation leads to external environment, strategic variables and internal variables even with a weaker extent, but it shows a strong relationship with organizational performance.

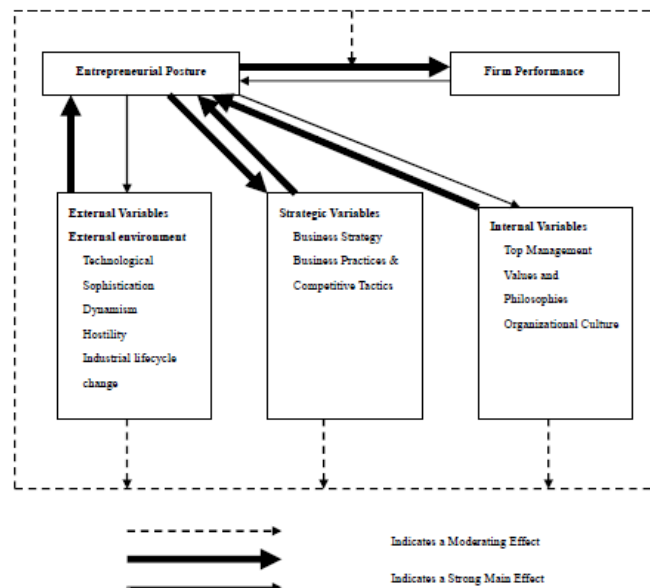


**Figure 5: The Covin and Slevin (1991) model for corporate entrepreneurship**

Then, in 1993 Shaker A. Zahra introduced his model, which is a revised Covin and Slevin model. A. Zahra reduced the external environmental factors into hostility, dynamism, and included a new factor “munificence” which highlights the opportunity seeking for making innovations in the industry.

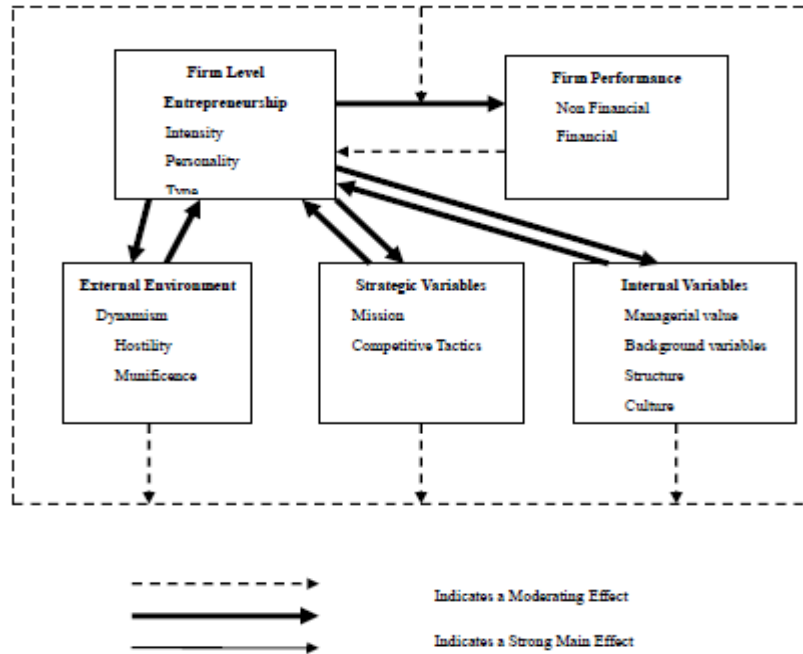


Figure 6: The Zahra (1993) model for corporate entrepreneurship

In 1996, Lumpkin and Dess presented their model of corporate entrepreneurship. The model defined the entrepreneurial orientation into five dimensions, and they argued that entrepreneurial orientation concerns the processes, practices and decision-making tasks that comes along with entering into a new market and deciding on new products and services. As per their model, a new entry conceives a key concept of corporate entrepreneurship. ( Adonisi, 2003)

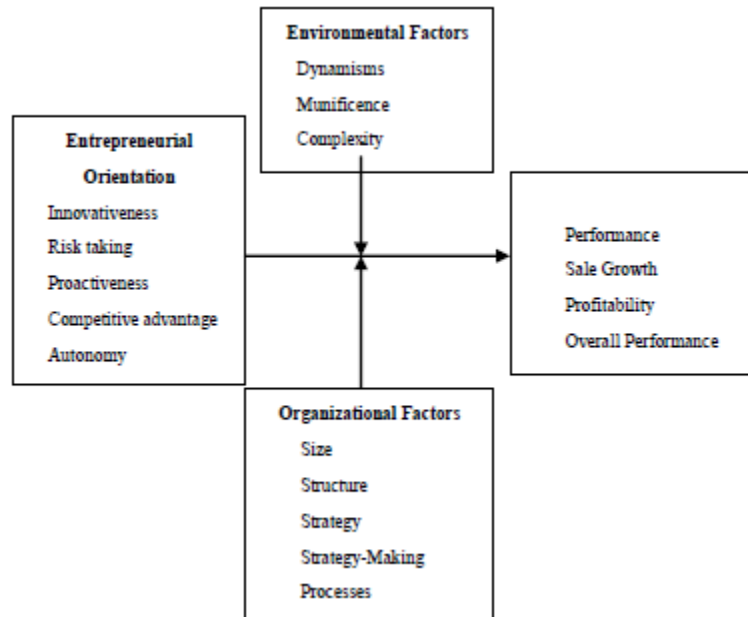


Figure 7: The Lumpkin and Dess (1996) model for corporate entrepreneurship

While Julie M. Fox in 2005, has developed a full view of Corporate Entrepreneurship and performance indicators to study Organizational Entrepreneurship and the organizational Performance linkage. Then, Moghaddama, Khorakianb, & Yaghoob (2015), adapted (Fox, 2005) model and used it to develop their Model of Hypotheses.

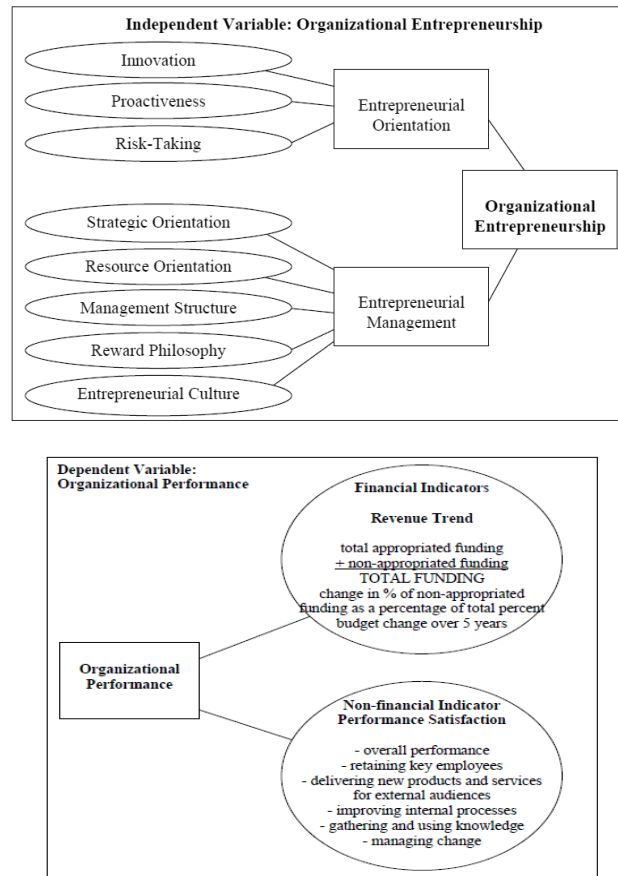


**Figure 8: Indicators of Organizational Entrepreneurship, Indicators of Organizational Performance (Fox, 2005)**

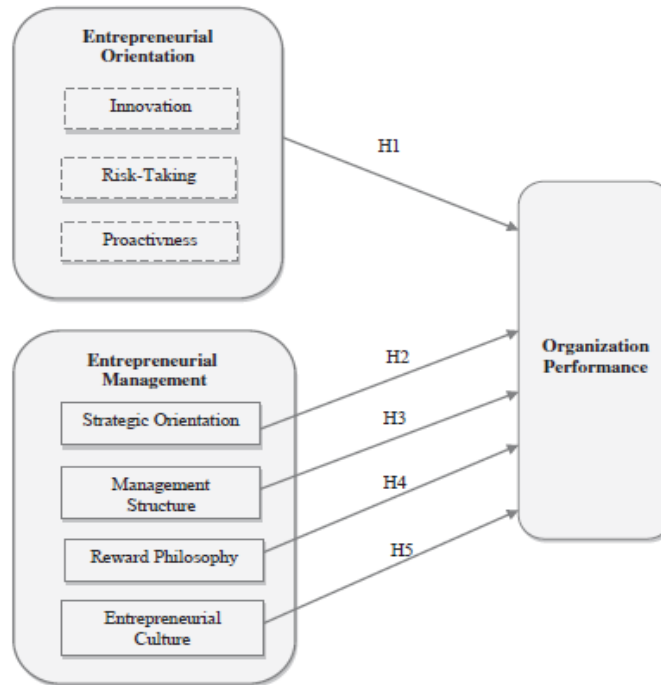


**Figure 9: model by (Moghaddama, Khorakianb, & Yaghoob, 2015)**

## **2.7 CORPORATE ENTREPRENEURSHIP IMPACT ON SME'S PERFORMANCE**

Performance is a multidimensional concept that declares how well goals achieved. The measures used to evaluate the performance set the relationship between corporate entrepreneurship and organizational performance. There are financial and non-financial measures. Non-financial measures include satisfaction, and success based on the views of owners and managers of the businesses. Organizational financial performance incorporates three specific areas of firm outcomes: (1) financial performance (profits, return on assets, return on investment) (Richard, Devinney, Yip, & Johnson, 2009), (Pokorná & Částek, 2013) (2) Product market performance (sales, market share) (Richard, Devinney, Yip, & Johnson, 2009), (Pokorná & Částek, 2013) (3) Shareholder return (total shareholder return, economic value added). (CARTON, 2004), (Richard, Devinney, Yip, & Johnson, 2009)

As expected, most of the argument related to the financial measures. As the non-financial measures, results are insecure and intangible. (Hosseini and Eskandari, 2013; Wiklund (1998); Wiklund and Shepherd (2005), Walter et al. (2005), Covin and Slevin (1991), and Brown (1996)

Many scholars have found that in SMEs the effect of corporate entrepreneurship on financial performance has been of positive (Daryani & Karimi, 2017; Miller, 1983; Lumpkin and Dess, 2001; Wiklund and Shepherd, 2005; Zahra and Covin, 1995; Zahra and Garvis, 2000). Another article by Lie et al. (2009), states that SMEs can create wealth during the competitive process, as a result of adopting of corporate entrepreneurship. Moreover, Kraus et al. (2012) have examined the effect of corporate entrepreneurship on the performance of SMEs in Netherlands. And he argues that when an organization adopt entrepreneurial orientation it can distinguish itself from competitors, making it more economically dynamic

Likewise, Fis & Cetindamar (2009) have examined 347 companies in Turkey to study the relationship between corporate entrepreneurship dimensions and financial performance of organization. The study shows, that all of the dimension of corporate entrepreneurship have a positively correlation with the organization financial performance. However, innovation is the most effective dimension of with a highly positive significant correlation. Which then have been concurred by Kaya N. (2015) study, that status that corporate entrepreneurship dimensions affect performance of SMEs positively. Additionally, Antoncic & Hisrich, (2004) found that the small manufacturing firms that adopt corporate entrepreneurship in the form of Competitive Aggressive behavior perform well especially in turbulent environments. In addition, results of other studies demonstrate that it has a great impact on increasing organization growth and profitability (Lekmat & Selvarajah ,2008; Lee et al, 2009; Bulut and Yilmaz, 2008)

Furthermore, scholars shows that that the influence of Corporate Entrepreneurship on organizational performance is particularly shown in long-term profitability. (Lekmat & Selvarajah,2008) (Zain & Hassan ,2007)

Scholars have found that Corporate Entrepreneurship in SMEs is positively related to affective commitment (Neinger, 2010). (Rego, 2011); (Wasti, 2002); (Dess,1996) ;(Wood et al., 2008). On the other hand, other studies affirmed a negative Corporate Entrepreneurship performance relationship (Covin, Slevin, & Schultz, 1994; George, Wood JR, & Khan, 2001; Shamsuddin, Othman, & Shahadan, 2012).

Multiple scholars have found that entrepreneurial orientation in SMEs have significant positive relationship with performance (Ibeh ,2003; Frese, Brantjes, and Hoorn, 2002; Gurbuz and Aykol ,2009; Chow,2006). Organization with higher entrepreneurial orientation that have effectively managed its risk-taking with more innovativeness and pro-activeness can have more smoothed growth than firms with lower entrepreneurial orientation (Soininen et al. ,2012). Moreover, scholars comparing between SMEs based on their years of existing, states that younger SMEs that encompasses higher level of entrepreneurial orientation and intangible resources have a higher growth rate than the SMEs with the limited entrepreneurial orientation (Anderson and Eshima, 2013). Wiklund and Sheperd (2003), have state that at a theoretical level, Entrepreneurial Orientation, have positive have long term effect on growth and financial performance of small businesses.

Another study said there is a significant correlation between entrepreneurial orientation and business performance (Radipere, 2013). Which confirms the findings of Wiklund and Shepherd's (2005). Another article found that that entrepreneurial orientation dimensions: proactiveness, innovativeness and risk taking, positively influences SMEs performance. (Radipere, 2014).

Relatively few studies have been done for entrepreneurial management dimensions. Some works such as Fox (2008) considers entrepreneurial management together to measure organizational entrepreneurship, and it explains 21% of firms' performance variation. On the other hand, Moghaddam, Khorakian, and Maharati (2015) suggest that only three variables are significant out of six, which are strategic orientation, reward philosophy with positive correlation, and a negative connotation with structure. Both is done within the public sector; therefore, it may be controversial whether entrepreneurial management actually enhances performance.

Pratono and Mahmood (2014) studied the relationship between entrepreneurial management dimensions and SME performance. They analyzed the data of 182 SMEs in Surabaya, Indonesia, and the result shows Reward Philosophy has the most effect on SMEs performance as it provides improvement on firm performance and strategic orientation has a significant relationship with SMEs performance.

Several researches were devoted to such factors as age and size of the company. Blackburn et al. (2013) stated that in terms of size of the company innovative companies perform 1.6 times better than the other firms, while older firms, small in size, perform better than large firms in terms of profitability do. According to Laforet (2013) old companies are better in innovation than the young companies due to higher level of experience, and at the same time small firms are better for innovation than the medium sized firms, because, they are more flexible and they can adapt to any market changes with new product innovation.

The research by Islam et al. (2011) found that there is an impact of the age of the firm on the relationship between Corporate Entrepreneurship and performance of the organization, as older the firms are the more successful. On the other side, Anderson and Eshima (2013) stated that growth rate is higher for younger SMEs than the older firms are. According to Kozubíková et al. (2015) and Belás et al. (2014), the performance of SMEs is determined by personality traits of entrepreneurs rather than the age or size of the company.

## **CHAPTER 3: THEATRICAL FRAMEWORK AND RESEARCH METHODOLOGY**

### **3.1. INTRODUCTION**

This chapter contains two main sections. The first section explains the research problem, and the research objectives. Then it will demonstrate the theoretical framework and the variables which was derived from the previous literature. Explaining, the research dependent variable, independent variables, moderating variables, questions and hypotheses of the research.

The second part present an outline and justification for the methods used. It provides insight regarding the design of the research, the sampling technique and the sample chosen. Furthermore, the chapter will discuss the data collection method, and the statistical methods used to analyze the data collected.

### **3.2. RESEARCH PROBLEM**

The majority of the worldwide businesses are SMEs, they account for 90% of worldwide business. (worldBank, 2019) In Bahrain, SMEs account for about 30% of the Bahraini economy with more than 83,740 enterprises registered in the Kingdom (MOIC,2019).

There has been evidence that the SMEs that practice and adopt Corporate Entrepreneurship can promptly react and anticipate to changes. And With no prior studies on Corporate Entrepreneurship in Bahrain, SME's seemed the most appropriate type of organizations to focus on as they count for a large portion of the Bahraini owned enterprises. Moreover, within the time range and the fact that financial data are difficult to obtain, this research focus on the non-financial Performance satisfaction of SME's rather than financial performance. Corporate Entrepreneurship, a popular topic and remains an unexplored area of study in Bahrain.

Hence, the problem of this research is the lack of Evidence regarding the impact of Corporate Entrepreneurship on Organizational Performance of SME's in Bahrain. Therefore, the Research main aim is to explore the relationship between Corporate

Entrepreneurship and Performance of Bahraini SMEs. With the intent to develop a framework for proper application of corporate Entrepreneurship in SMEs.

### **3.3. RESEARCH OBJECTIVES**

To assess the impact of Corporate Entrepreneurship on Organizational Performance of SMEs in Bahrain for the purpose of developing a framework for proper application of corporate Entrepreneurship in SMEs.

### **3.4. THEORETICAL FRAMEWORK**

The framework of this research is adopted from adapted from Julie M. Fox, 2005 “Indicators of Organizational Entrepreneurship” and The Lumpkin and Dess ,1996 “model for corporate entrepreneurship”.

#### **3.4.1 Dependent Variable: SMEs’ Performance**

**Definition:** Performance is a multidimensional concept that declares how well goals achieved. The measures used to evaluate the performance set the relationship between corporate entrepreneurship and organizational performance. There are financial and non-financial measures. Non-financial measures include satisfaction, and success based on the views of owners and managers of the businesses. Organizational financial performance incorporates three specific areas of firm outcomes: (1) financial performance (profits, return on assets, return on investment) (Richard, Devinney, Yip, & Johnson, 2009), (Pokorná & Částek, 2013) (2) Product market performance (sales, market share) (Richard, Devinney, Yip, & Johnson, 2009), (Pokorná & Částek, 2013) (3) Shareholder return (total shareholder return, economic value added). (CARTON, 2004), (Richard, Devinney, Yip, & Johnson, 2009)

As expected, most of the argument related to the financial measures. As the non-financial measures, results are insecure and intangible. (Hosseini and Eskandari, 2013; Wiklund (1998); Wiklund and Shepherd (2005), Walter et al. (2005), Covin and Slevin (1991), and Brown (1996)

Many scholars have found that in SMEs the effect of corporate entrepreneurship on financial performance has been of positive (Daryani & Karimi, 2017; Miller, 1983;

Lumpkin and Dess, 2001; Wiklund and Shepherd, 2005; Zahra and Covin, 1995; Zahra and Garvis, 2000).

Financial Performance is difficult to measure without the financial reports from SMEs. In this research, the performance will be measured using Non-Financial Performance Satisfaction, which can be measured through a series of six items indicating satisfaction with performance during the past three years, which summed into a single non-financial performance index (Fox, 2005). These items are overall performance, retaining key competencies, delivering new product and services, improving internal process, gathering and using information, and managing change.

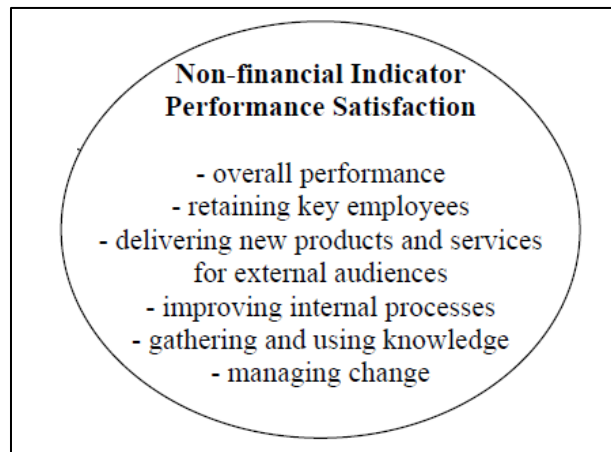


Figure 10: Non-Financial Indicator Performance Satisfaction (Fox, 2005)

### 3.4.2 Independent Variables: Corporate Entrepreneurship

**Definition:** Various scholars have different definitions of Corporate Entrepreneurship. and, for this research Corporate Entrepreneurship is defined as a process whereby corporate entrepreneurs of established enterprises undertake product and service innovations, act proactively, compete aggressively, practice autonomy and are willing to take risk through internal and external business ventures in order to enhance their enterprises' performance (Zain and Hassan 2007; Zahra and Covin 1995). Corporate Entrepreneurship employ an entrepreneurial management, which attempts to create a balance between innovation abilities of the SMEs with the efficient and effective use of resources. Tries to initiate changes and react to changes quickly and flexibly. In the course of the entrepreneurial process, the entrepreneurial manager creates new value through identifying new

opportunities, attracting the resources needed to pursue those opportunities, and building an organization to manage those resources (Bhave, 1994; Wickham, 2006).

To sum up, Corporate Entrepreneurship is not the investment groups or new products; it can be described as a holistic view of the enterprises that encourages creative strategic processes within the organization. ( Moghaddama, Khorakianb, & Yaghoob, 2015,Barrett, Ballon & Weinstein, 2000; Antoncic & Hisrich, 2004; Jennings, 1994). Which summarized as:

**Corporate Entrepreneurship = Entrepreneurial Orientation + Entrepreneurial Management**

**Figure 11: Conceptual definition of Corporate Entrepreneurship**

### **3.4.2.1 Entrepreneurial Orientation**

**Definition:** It is the desire of an individual or an organization to take advantage of new opportunities and to assume the responsibility to produce innovative and effective change (Morris & Kuratko, 2002). Such behavior or preference is known as Entrepreneurial Orientation (Lumpkin & Dess, 1996). As per the literature, Entrepreneurial Orientation has five dimensions or factors, which are Innovation; Risk-taking; Pro-activeness; Autonomy; and Competitive Aggressiveness. Which can be summarized as:

**Entrepreneurial Orientation =Innovation + Risk Management + Pro-activeness + Autonomy**

**Figure 12: Conceptual definition of Entrepreneurial Orientation**

Entrepreneurial Orientation can be assessed by measuring the following:

- **Innovation**

**Definition:** Innovation has been defined as the willingness to introduce newness and novelty through experimentation and creative processes aimed at developing new products and services as well as new processes (DESS & LUMPKIN, 2005). Whereas, as a dimension of corporate entrepreneurship innovation refers to product

and service innovation highlighting development and innovation in technology (Morris et al., 2002) (Van Aardt et al., 2008)

- **Risk Management**

**Definition:** Risk-taking and competitive aggressiveness both are substantial elements of the entrepreneurial orientation of SMEs and closely interconnected, which both have a significant impact on the management of SMEs. Thus, in this research both factors combined in one element “Risk Management”. Where it measures the quick pursuit of opportunities, fast commitment of resources and bold actions while improving the markets’ position of the company or challenging competitors intensively during market entrance accomplished by aspiring goals and adopting risky strategies and tactics.

Thus, risk-management defined as the process where risks are typically: assessed, calculated and managed.

- **Pro-activeness**

**Definition:** the extent to which the organization has an increased understanding of the customers’ needs and market’s signals (visible and invisible). The pro-activeness dimension relate to opportunism and anticipation through introducing new products and services before rivals (Moghimi, 2008). This dimension represent a forward-looking perspective characteristic of a marketplace leader that has the foresight to seize opportunities in anticipation of future demand.

- **Autonomy**

**Definition:** Autonomy refers to the independent action of an individual or a team in pursuing an idea or a vision. The autonomous person performance in accordance with a freely self-chosen and informed plan. This dimension represent the degree of motivation given to employees to act entrepreneurially, not criticizing them for mistakes done while innovating , while creating a sense of appreciation to

employees for their contribution to the organization in attaining its goals and objectives.

### 3.4.2.2 Entrepreneurial Management

**Definition:** Modern definitions of entrepreneurial management tend to focus on the search for an opportunity (Brazeal, 1999; Shane and Venkataraman, 2000; Venkataraman, 1997); their common characteristics are that they define entrepreneurial management as a “mode of management” that is proactive, opportunity-driven, and action-oriented. In this regard, entrepreneurial management style is evidenced by the firm’s strategic decisions and operating management philosophies. This research adopts Stevenson’s (1983) approach on EM, which was developed, and operationalized thoroughly by Brown et al. (2001). The research chooses to focus on five of Stevenson’s six dimensional construct of Entrepreneurial Management, which is Strategic Orientation; Management Structure; Resource Orientation; Reward Philosophy; and Entrepreneurial Culture.

**Entrepreneurial Management = Strategic Orientation + Resource Orientation +  
Management Structure + Reward Philosophy + Entrepreneurial Culture**

**Figure 13: Conceptual definition of Corporate Entrepreneurial Management**

- **Strategic and Resource Orientation**

**Definition:** Strategic and Resource Orientation deals with deciding what should be the major concerns of forming organizational strategy and control of resources. Scholars show that there is a relationship between strategic orientation and entrepreneurial behavior in organization as the decisions made based on opportunity not based on the available resources. Strategic orientation determines whether an organization driven more by opportunity or by resources currently controlled. In addition, that the ability of a firm to survive in the small business environment is dependent on the selection and implementation of a strategy that differentiates it from its competitors. Organizations with a comprehensive entrepreneurial approach try to reduce resource commitment by investing in a

multi-stage manner and using others' resources such as financial capital, intellectual capital, skills, and competencies through subtracting, outsourcing or renting.

- **Management Structure**

**Definition:** There are two types of structures, each at a different end, Mechanical and organic (Burns & Stalker, 1961). Management Structure reflects the desired degree of structural organicist. Companies with more entrepreneurial approach have organic and flat structure that is composed of multiple informal networks and enable employees to freely seek opportunities. According to Cornwall & Perlman (1990), Entrepreneurial organization tend to establish an organic structure, a structure that has low formality, loose hierarchy & Rules, low complexity, low concentration, high flexibility, High transformation, high professionalism. The organic structures create an environment where people can freely locate and pursue opportunities. Indeed, creating loose and informal control systems, disregarding formal procedures, allowing the use of a wide range of management styles, acting based on situations and their personality, and not job description.

- **Entrepreneurial Culture**

**Definition:** The culture of any organization have a significant impact on its performance, scholars have defined Entrepreneurial culture as one with high flexibility, cooperation, independency and tendency to be customer-oriented, seeks Entrepreneurship, change, risk-taking, learning and innovation. In addition, many researchers (Kanter, 1985; Hisrich and Peters, 1986; Brazeal, 1993) have proved the impact of organizational culture on corporate entrepreneurship. Also, Ocasio (1997) state that corporate culture values seeking opportunities, experimentation, developing new ideas, and potential failures. This way, organization can distribute attention and absorptive capacity to activities for fostering corporate entrepreneurship.

- **Reward Philosophy**

**Definition:** Reward Philosophy refers to how organizations with the entrepreneurial approach is creating value through seeking and exploiting opportunities, and that the compensations and promotions in these organizations are based on the success of individuals or teams in adding value to the organization. As such, compensation is value driven and performance-based in these companies.

### **3.4.3 Moderating Variables**

#### **3.4.3.1 Government Support**

**Definition:** The kingdom of Bahrain has a strong base of support and assistance for SMEs. One of The main SME supporting organizations in Bahrain is Tamkeen, which offers a wide variety of programs that provide funding, and advisory support for developing a new product or service, increasing work capacity or expanding locally or internationally. Also, Bahrain Development Bank (BDB) Working in-line with Bahrain Economic Vision 2030, BDB adopts a dynamic and effective strategy for stimulating entrepreneurial activity in implementing its plans for financing & advising small and medium businesses. United Nation Industrial Development Organization (UNIDO), which aims at stimulating the emergence of new and growth of existing enterprises that produce goods and services for trade, Bahrain Business Incubator Center (BBIC) is an organization dedicated to supporting entrepreneurial businesses in Bahrain by providing physical premises as well as advisory and administrative services. They aspire to promote entrepreneurial culture in Bahrain to enhance the socio-economic prosperity of the Kingdom.

#### **3.4.3.2 Government Regulation**

**Definition:** The governmental laws or entities that controls the way the firms behave and operate through mechanisms of setting the prices or controlling the quantity and quality of goods and services produced (MIT, 2003). In Bahrain, these entities are Labour Market Regulatory Authority (LMRA) to regulate and control work permits for foreign workers in Bahrain, and collect Fees from companies for foreign work permits, as well as a monthly tax for each foreign worker they employ. Ministry of Industry and Commerce (MOIC), which regulate the commercial registration process and imposes the fees for issuance and renewal based on the type of the firm registered. The National Bureau for Revenue (NBR),

responsible for administration, monitoring and collection of VAT and excise and related penalties through enforcing laws, regulations and bylaws applicable in Kingdom of Bahrain.

#### **3.4.3.3 Company Size**

**Definition:** The firm size will follow the SMEs classification in Bahrain, which are classified into three categories Micro with Up to 5 employees, Small with 6-50 employees, and Medium with 51-100 employees.

#### **3.4.3.4 Company Age**

**Definition:** the number of years since the firm has been established.

### 3.5. SCHEMATIC DIAGRAM OF THE THEORETICAL FRAMEWORK OF THE STUDY

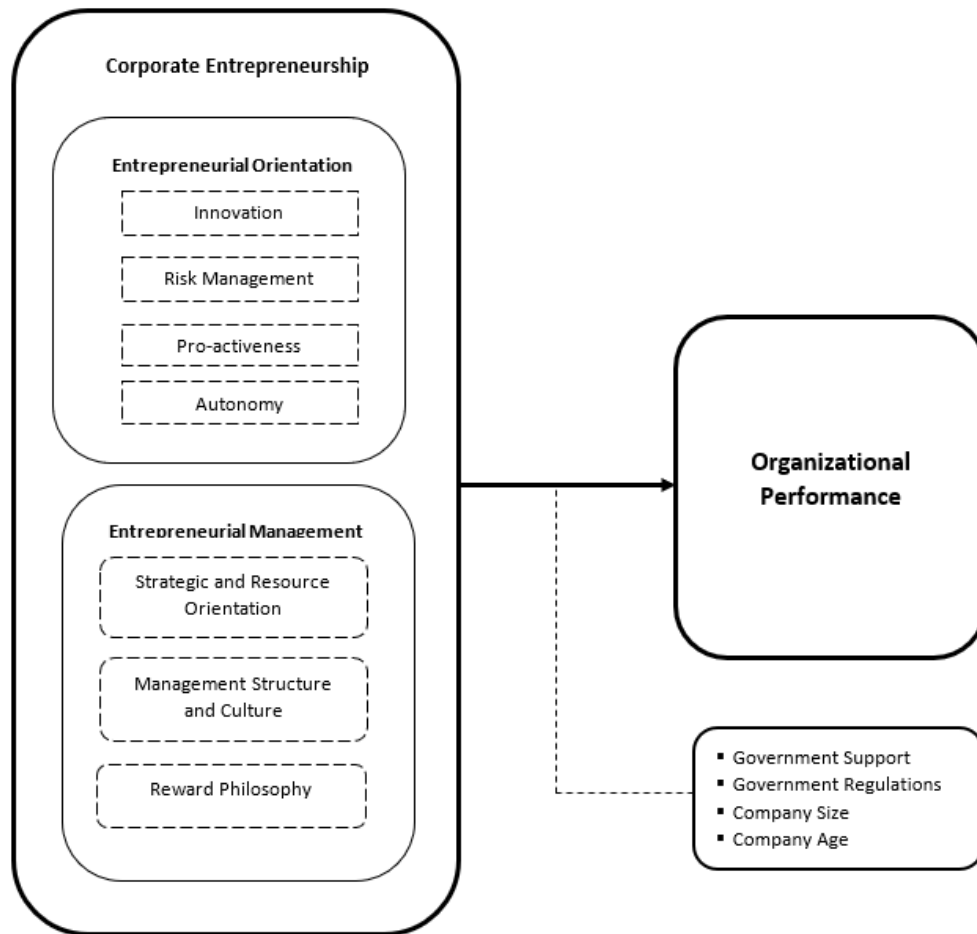


Figure 14: Proposed Model of “The Effect of Corporate Entrepreneurship on Organizational Performance of SME’s In Bahrain”, Modified from (Moghaddam, Khorakian, & Maharati (2015), Fox (2008), and The Lumpkin and Dess (1996))

### **3.6. RESEARCH QUESTIONS**

#### **3.6.1 Main Questions**

Q1: To what extent Innovation effect Performance of Bahrain SMEs.

Q2: To what extent Risk Management effect Performance of Bahrain SMEs.

Q3: To what extent Pro-activeness effect Performance of Bahrain SMEs.

Q4: To what extent Autonomy effect Performance of Bahrain SMEs.

Q5: To what extent strategic and Resource Orientation effect Performance of Bahrain SMEs.

Q6: To what extent Management Structure and Culture effect Performance of Bahrain SMEs.

Q7: To what extent Reward Philosophy effect Performance of Bahrain SMEs.

#### **3.6.3 Minor Questions**

Q1: Does Firm Size affect the impact of Corporate Entrepreneurship on Performance of SMEs in Bahrain?

Q2: Does Firm Age affect the impact of Corporate Entrepreneurship on Performance of SMEs in Bahrain?

### **3.7 RESEARCH HYPOTHESES**

#### **Hypothesis 1:**

- **Null Hypothesis (H<sub>0</sub>):** There is no relationship between Entrepreneurial Orientation and SMEs Performance.
- **Alternative Hypothesis (H<sub>a</sub>):** There is a positive relationship between Entrepreneurial Orientation and SMEs Performance.

#### **Hypothesis 2:**

- **Null Hypothesis (H<sub>0</sub>):** There is no relationship between Entrepreneurial Management and SMEs Performance

- **Alternative Hypothesis (Ha):** There is a positive relationship between Entrepreneurial Management and SMEs Performance.

### **Hypothesis 3:**

- **Null Hypothesis (Ho):** There is no relationship between SMEs' Innovation and SMEs Performance.
- **Alternative Hypothesis (Ha):** There is a positive relationship between SMEs' Innovation and SMEs Performance.

### **Hypothesis 4:**

- **Null Hypothesis (Ho):** There is no relationship between SMEs' Pro-activeness and SMEs Performance.
- **Alternative Hypothesis (Ha):** There is a positive relationship between SMEs' Pro-activeness and SMEs Performance.

### **Hypothesis 5:**

- **Null Hypothesis (Ho):** There is no relationship between SMEs' Risk Management and SMEs Performance.
- **Alternative Hypothesis (Ha):** There is a positive relationship between SMEs' Risk Management and SMEs Performance.

### **Hypothesis 6:**

- **Null Hypothesis (Ho):** There is no relationship between the degree of Autonomy and SMEs Performance.
- **Alternative Hypothesis (Ha):** There is a positive relationship between the degree of Autonomy and SMEs Performance.

### **Hypothesis 7:**

- **Null Hypothesis (Ho):** There is no relationship between the SME's Strategic and Resource Orientation and SMEs Performance.
- **Alternative Hypothesis (Ha):** There is a positive relationship between SME's Strategic and Resource Orientation and SMEs Performance.

#### **Hypothesis 8:**

- **Null Hypothesis (Ho):** There is no relationship between the SME's Management structure and culture and SMEs Performance.
- **Alternative Hypothesis (Ha):** There is a positive relationship between SME's Management structure and culture and SMEs Performance.

#### **Hypothesis 9:**

- **Null Hypothesis (Ho):** There is no relationship between the SME's Reward Philosophy and SMEs Performance.
- **Alternative Hypothesis (Ha):** There is a positive relationship between SME's Reward Philosophy and SMEs Performance.

#### **Hypothesis 10:**

- **Null Hypothesis (Ho):** There is no relationship between the company size and the impact of Corporate Entrepreneurship on SMEs Performance.
- **Alternative Hypothesis (Ha):** There is a positive relationship between the company size and the impact of Corporate Entrepreneurship on SMEs Performance.

#### **Hypothesis 11:**

- **Null Hypothesis (Ho):** There is no relationship between company Age and the impact Corporate Entrepreneurship has on SMEs Performance.
- **Alternative Hypothesis (Ha):** There is a negative relationship between Company Age and the impact Corporate Entrepreneurship has on SMEs Performance.

### **3.8. RESEARCH DESIGN AND METHODOLOGY**

The research design explains the overall strategy that researcher choose to integrate the different components of the study in a coherent and logical way (De Vaus, 2006). While the research problem being studied is the main key that dictate the selection of the research design. ( Walliman, 2011) It provides the researcher with a complete set of identified elements of information or data leading to a reasonable end result (Sileyew, 2019) . Thus, construct as the outline for the collection, measurement, and analysis of data.

### **3.8.1 RESEARCH PARADIGM AND CLASSIFICATIONS**

This section shows the research paradigm and classifies it according to the purpose of the research, the research logic, and the outcomes of the research.

Quantitative research has been defined as a way of testing objective theories by measuring the variables and exploring the relationship between them (Creswell, 2009). Therefore, a quantitative research approach has been chosen to achieve the research objectives, as it provides multiple instruments to analyze the gathered data using statistical procedures. This will allow the researcher to quantify the impact of Corporate Entrepreneurship on the organizational performance of SMEs in Bahrain. Then, the results can be generalized to a broader population (Bhandari, 2020).

- **Classification According to Research Purpose**

The purpose of the research is descriptive and analytical. Descriptive research will allow to describe and learn about Corporate Entrepreneurship and its relationship to the performance of SMEs in Bahrain. The research, which is descriptive in nature, will aid in understanding the effect of entrepreneurial orientation dimensions and entrepreneurial management constructs on the overall SMEs performance. In addition, the purpose of this research is also analytical. It analyzes the gathered data to help answer the research questions and test the hypothesis between the variables (Omair, 2015).

- **Classification According to Research Logic**

The research follows a deductive logic, as it is commonly associated with quantitative research (Gabriel, 2013). Also, a research logic is deductive in nature when it starts with constructing hypotheses based on previous theories, test the hypotheses, and ends with confirming or rejecting them (Dudovski, 2018). And this research attempts to test multiple hypothesis to study the relationship between Corporate Entrepreneurship and the performance of SMEs in Bahrain.

- **Classification According to Research Outcome**

The research outcomes are applied, as the result of this research can be applied in SMEs in Bahrain and other countries with similar situations. The research will aid SME' owners to understand the effect of Corporate Entrepreneurship on the overall organizational performance of their enterprises. And, what Entrepreneurial management constructs has the most impact on the performance of the enterprise. And, which dimension of the Entrepreneurial orientation dimensions they need to focus on.

### **3.8.2 POPULATION, SAMPLE SIZE AND SAMPLING TECHNIQUE**

The population of this research consists of SMEs' owners, managers and employees. According to Ministry of Commerce (Oct 2019), there are 83,740 SMEs in Bahrain. After reviewing ministry of commerce records, the number of populations have been reduced to 50,385 SMEs. As many of these companies are branches of another SME. Then, deducting non-Bahraini owned companies, Single Person Companies, companies specialized in repair activities or unspecified activities, and SMEs established less than a year ago. Also, due to government regulation on most of SMEs due to COVID-19 at the time of conducting the survey. The research sample consisted of 300 SMEs, 100 from each category.

| Enterprise Size | No. of Enterprises | CR level (branches grouped under main CR) |
|-----------------|--------------------|-------------------------------------------|
| Micro           | 69,237             | 36,510                                    |
| Small           | 13,670             | 12,978                                    |
| Medium          | 833                | 897                                       |

**Table 1: SMEs in Bahrain**

The researcher used a purposive sampling technique, which is a non-probability technique. The participants have been chosen based on the need of the research and the population. By applying purposive sampling, the researchers ensure the reliability of information supplied by the participants. This type of sampling allows for generalizations about the selected sample compared with other type of sampling techniques (Klein, 2013)

The participants were selected over two rounds. In Round (1), SMEs have been selected Purposively by the researcher to satisfy the following criteria: Well-established Companies, and have been established for more than three years, and have changed their product/services overtime.

In Round (2) selection of the survey respondents by their company purposively, the selected respondent must have a knowledge of Entrepreneurship, and can answer the survey fairly. Thus, the participants included owners or CEOs, middle management, and employees.

Out of the targeted sample approach (300 companies), 153 responses received, representing response rate of 51%. Therefore, the sample size of this study is 153 employees.

### **3.8.3 DATA COLLECTION METHOD**

#### **- Unstructured Interviews**

At the proposal stage, three unstructured interviews were conducted to validate the conceptual model of the research. The interviewees were SMEs owners and general managers. The interviewees were asked to provide their insight on the proposed conceptual model and variables. They have all agreed that government support and regulation should be conceded as a moderating variable as the proposed conceptual model only included company size and age.

The interviewees have provided insight on the SMEs sector and how most of the SMEs operate, also they have helped in shaping the criteria for participant selection. And most importantly, they have validated the conceptual model proposed in the research.

#### **- Survey**

The researcher used a self-administered survey as the data collection method. Both, electronic and paper survey were used. Electronic, using Google Forms, which then sent to the participant via link in WhatsApp application. And, paper form survey used with participants who chose to conduct the survey face-to-face. The survey had four sections as follows:

- Section (1): included questions about the demographic information such as the gender of participant, also included questions about the moderating variables (Age of the company, and size of the company).
- Section (2): included nineteen statements that were scaled on 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5) to measure four dimensions of Entrepreneurial orientation.
- Section (3): included fifteen statements that were scaled on 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5) to measure three Constructs of Entrepreneurial Management.
- Section (4): included Seven statements that were scaled on 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5) to measure the Dependent Variable, the performance of the SME.

### - Questionnaire Piloting

Prior to distributing the survey, a pilot survey has been conducted as a measure to ensure reliability of the survey. According to (Nixon, Fox-Rushby, Nyandieka, & Wanjau, 2002) “Pre-testing is the main chance for researchers to gauge the meaning attributed to survey questions ‘before it is too late’”. The pilot sample consisted of five SME owners who have excellent knowledge on the subject, and their feedback was reflected in rewording of some of the survey questions and deletion of leading questions.

### 3.8.4 DATA ANALYTICAL APPROACHES

Questions of the four sections of the survey were coded properly, and the responses of both online and paper survey were imported into IBM SPSS. The measure level (nominal, ordinal or scale) was identified and assigned properly to the variables. Figure 3.1 below represents the data analytical approaches used in this research research.

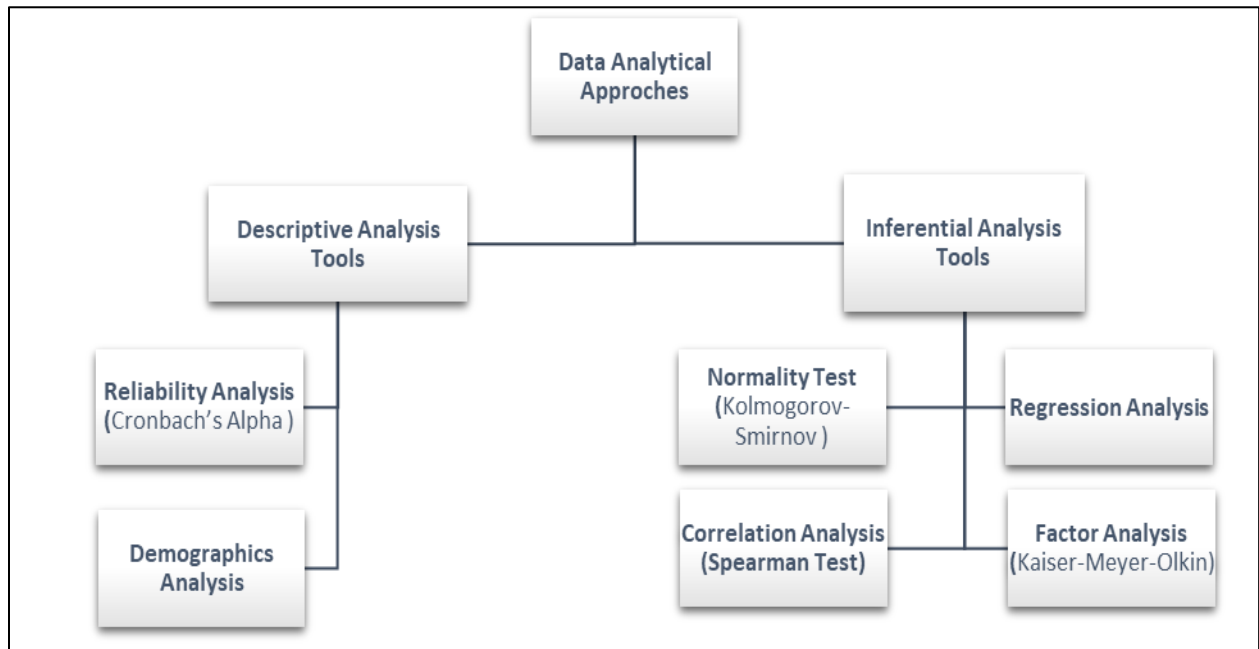


Figure 15: Data analytical approaches

### **3.8.4.1 Descriptive Analysis**

The descriptive data analysis consists of five sections; section one describes the reliability analysis for all questions per each variable, section two describes the factor analysis, section three describes the demographic analysis, section four describes the theoretical framework questions and finally section five describe the theoretical framework variables.

The researcher uses a dedicated set of questions per each independent or dependent variables, so a reliability analysis is the main instrument for measuring the internal consistency inside each variable. The researcher uses Cronbach's Alpha test in the reliability analysis.

The researcher uses the Factor analysis for data reduction as it is the commonly used method for reducing the data. Kaiser-Meyer-Olkin (KMO) test is a pre-test used in order to check the adequacy of the collected data.

The researcher analyses gender, position, age of the company and number of employees for the demographic analysis through using both bar charts.

In the fourth section, The researcher analysis the questionnaire questions in terms of median, mode, minimum, maximum, percentiles.

Finally, the researcher constructs the variables through summing the responded answers on every set of questions per variable then divides this summation on the number of questions per variable, this results changes scale into interval scale where the difference between every two points remains the same (Sekaran, 2003).

### **3.8.4.2 Inferential Analysis**

The inferential data analysis part consists of four parts; part one introduce normality test for checking using either parametric or not parametric analysis, section two introduce the correlation analysis for measuring the one to one relationship between the independent and dependent variable, section three introduces the regression analysis in order to construct one equation for all independent variable toward the dependent variable, and finally section four introduce the moderation effect.

The normality tests the distribution of the variables in order to decide between parametric or non-parametric analysis shall be used (Sekaran, 2003). The researcher will use a parametric data analysis for a normally distributed variables and a non-parametric data analysis for a not normally distributed variable. The researcher uses Kolmogorov-Smirnov statistic and Shapiro-Wilk test for the normality analysis (Sekaran, 2003).

The researcher intended to measure the one to one relationship between each independent and dependent variable. The outcome from the normality test shows a not normally distributed variables so the researcher uses a non-parametric correlation test called Sperman's rank.

Linear regression groups a set of independent variables into one equation toward the dependent variable. The liner regression is a parametric test however there are assumption to violate the normality results in order to use a not normally distributed variable in the regression analysis. And as the researcher collects 153 samples which is large enough to satisfy the condition of more than 10 times the number of predictors (40 sample) in addition to 104 more than eight times the number of predictors ( $104+8*4$ ).

Finally, the researcher uses two moderating variables; company age and company size. The researcher proposed an impact on both of the moderating variables on the relationship between Entrepreneurial Orientation and SME performance in addition to the relationship between Entrepreneurial management and SME performance. The researcher uses linear regression in the moderating analysis.

## **CHAPTER 4: DATA ANALYSIS, FINDINGS, AND DISCUSSION**

The researcher will analysis the collected sample using different analysis models and each test will be introduced and discussed in this chapter. During the previous chapters the researcher built the theoretical framework with independent, moderating and dependent variables and each variable contributed in the framework is supported from literature review.

The researcher uses Statistical Package for the Social Sciences (SPSS) software in this chapter.

The researcher uses Likert scale of 5 for all independent and dependent variables questions and its coding is 1 which represents strongly disagree, 2 which represents disagree, 3 which represents neutral, 4 which represents agree and 5 which represents strongly agree.

The researcher codes the variables questions into the following schema; innovation variable consists of four questions and ranked from I1 to I4, risk management variable consists of five questions and ranked from RM1 to RM5, Pro-activeness variable consists of five questions and ranked from P1 to P5, Autonomy variable consists of five questions and ranked from A1 to A5, Strategic & Resource Orientation variable consists of three questions and ranked from SR1 to SR3, Management Structure and Culture variable consists of nine questions and ranked from MS1 to MS9, Reward Philosophy variable consists of three questions and ranked from R1 to R3 and SME Performance variable consists of six questions and ranked from PS1 to PS6.

The researcher uses a sound of negative questions which needs to be inverted before the analysis which are five questions and its code is P3, A2, MS1, MS2, MS9.

The researcher collects a valid and complete 153 samples which will be analyzed and discussed in this chapter.

This chapter structured into main two sections; sections one contains the descriptive data analysis with all its related subsections and section two which contains the inferential data analysis with its related analysis techniques.

## **4.1 DESCRIPTIVE DATA ANALYSIS**

The descriptive data analysis describes and validate the consistency of the collected data to be prepared for the inferential analysis.

The descriptive data analysis consists of five sections; sections one describes the reliability analysis for all questions per each variable, sections two describes the factor analysis, section three describes the demographic analysis, section four describes the theoretical framework questions and finally sections five describes the theoretical framework variables.

### **4.1.1 Reliability Analysis**

The researcher uses a dedicated set of questions per each independent or dependent variables so a reliability analysis is the main instrument for measuring the internal consistency inside each variable.

The researcher uses Cronbach's Alpha test in the reliability analysis. The main decision for the internal consistency is the Alpha value where Alpha ranges from zero to one; zero means no reliability, below 0.5 indicates low reliability, from 0.5 to 0.7 indicates moderate reliability, from 0.7 to 0.9 indicates high reliability and above 0.9 indicates excellent reliability (Hinton *et al*, 2004).

For high questionnaire internal consistency, the researcher will accept Alpha value above 0.7 and reject Alpha of less than 0.7.

The researcher will discuss each variable reliability in the next sections

#### 4.1.1.1 Reliability Analysis for Innovation

The innovation variable consists of four questions from I1 to I4.

The next table shows the cronbach's Alpha coefficient for innovation independent variable

**Table 2: Innovation Cronbach's Alpha Coefficient**

| <b>Cronbach's Alpha</b> | <b>N of Items</b> |
|-------------------------|-------------------|
| .714                    | 4                 |

*Source: SPSS Data Analysis*

The Alpha value is 0.714 which is above 0.7 and below 0.9 so the innovation variable has a high reliability.

#### 4.1.1.2 Reliability Analysis for Pro-activeness

The Pro-activeness variable consists of five questions from P1 to P5 and it has a negative sound of P3 which will be inverted to contribute in the whole reliability.

The next table shows the cronbach's Alpha coefficient for Pro-activeness independent variable

**Table 3: Pro-activeness Cronbach's Alpha Coefficient**

| <b>Cronbach's Alpha</b> | <b>N of Items</b> |
|-------------------------|-------------------|
| .715                    | 5                 |

*Source: SPSS Data Analysis*

The Alpha value is 0.715 which is above 0.7 and below 0.9 so the Pro-activeness independent variable has a high reliability.

#### 4.1.1.3 Reliability Analysis for Risk Management

The Risk Management variable consists of five questions from RM1 to RM5.

The next table shows the cronbach's Alpha coefficient for Risk Management independent variable

**Table 4: Risk Management Cronbach's Alpha Coefficient**

| <b>Cronbach's Alpha</b> | <b>N of Items</b> |
|-------------------------|-------------------|
| .741                    | 5                 |

*Source: SPSS Data Analysis*

The Alpha value is 0.741 which is above 0.7 and below 0.9 so the Risk Management independent variable has a high reliability.

#### **4.1.1.4 Reliability Analysis for Autonomy**

The Autonomy variable consists of five questions from A1 to A5 and it has a negative sound of A2 which will be inverted to contribute in the whole reliability.

The next table shows the cronbach's Alpha coefficient for Autonomy independent variable

**Table 5:Autonomy Cronbach's Alpha Coefficient**

| <b>Cronbach's Alpha</b> | <b>N of Items</b> |
|-------------------------|-------------------|
| .736                    | 5                 |

*Source: SPSS Data Analysis*

The Alpha value is 0.736 which is above 0.7 and below 0.9 so the Autonomy independent variable has a high reliability.

#### **4.1.1.5 Reliability Analysis for Strategic & Resource Orientation**

The Strategic & Resource Orientation variable consists of six questions from SR1 to SR3.

The next table shows the cronbach's Alpha coefficient for Strategic & Resource Orientation independent variable

**Table 6: Strategic & Resource Orientation Cronbach's Alpha Coefficient**

| <b>Cronbach's Alpha</b> | <b>N of Items</b> |
|-------------------------|-------------------|
| .742                    | 3                 |

*Source: SPSS Data Analysis*

The Alpha value is 0.742 which is above 0.7 and below 0.9 so the Strategic & Resource Orientation independent variable has a high reliability

#### 4.1.1.6 Reliability Analysis for Management Structure and Culture

The Management Structure and Culture variable consists of nine questions from MS1 to MS9 and it has a negative sound of MS1, MS2&MS9 which will be inverted to contribute in the whole reliability.

The next table shows the cronbach's Alpha coefficient for Management Structure and Culture independent variable

**Table 7:Management Structure and Culture Cronbach's Alpha Coefficient**

| <b>Cronbach's Alpha</b> | <b>N of Items</b> |
|-------------------------|-------------------|
| .782                    | 9                 |

*Source: SPSS Data Analysis*

The Alpha value is 0.782 which is above 0.7 and below 0.9 so the Management Structure and Culture independent variable has a high reliability.

#### 4.1.1.7 Reliability Analysis for Reward Philosophy

The Reward Philosophy variable consists of three questions from R1 to R3.

The next table shows the cronbach's Alpha coefficient for Reward Philosophy independent variable

**Table 8:Reward Philosophy Cronbach's Alpha Coefficient**

| <b>Cronbach's Alpha</b> | <b>N of Items</b> |
|-------------------------|-------------------|
| .824                    | 3                 |

*Source: SPSS Data Analysis*

The Alpha value is 0.824 which is above 0.7 and below 0.9 so the reward independent variable has a high reliability

#### 4.1.1.8 Reliability Analysis for SME Performance

The SME Performance variable consists of six questions from PS1 to PS6.

The next table shows the cronbach's Alpha coefficient for SME Performance independent variable

**Table 9: SME Performance Cronbach's Alpha Coefficient**

| <b>Cronbach's Alpha</b> | <b>N of Items</b> |
|-------------------------|-------------------|
| .837                    | 6                 |

*Source: SPSS Data Analysis*

The Alpha value is 0.837 which is above 0.7 and below 0.9 so the SME Performance dependent variable has a high reliability.

The researcher can conclude that all the independent and dependent variables has a high reliability so the questionnaire has a high internal consistency.

#### **4.1.2 Factor Analysis**

The researcher uses the Factor analysis for data reduction as it is the commonly used method for reducing the data.

Kaiser-Meyer-Olkin (KMO) test is a pre-test used in order to check the adequacy of the collected data

**Table 10: KMO and Bartlett's Test**

|                                                  |                    |          |
|--------------------------------------------------|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .701     |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 6209.511 |
|                                                  | Df                 | 561      |
|                                                  | Sig.               | .000     |

*Source: SPSS Data Analysis*

The KMO test is significant as its sig value is less than 0.05. the KMO value is 0.701 which is higher than 0.7 so factor analysis is an appropriate method for data reduction

The principle component method will be used in order to get the number of factors within the data

Table 4.3 shows the output of the SPSS for the factors with Eigen values greater than one

**Table 11: Total Variance Explained**

| <b>Total Variance Explained</b> |                     |               |              |                                     |               |              |                                   |               |              |
|---------------------------------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|-----------------------------------|---------------|--------------|
| Com<br>pone<br>nt               | Initial Eigenvalues |               |              | Extraction Sums of Squared Loadings |               |              | Rotation Sums of Squared Loadings |               |              |
|                                 | Total               | % of Variance | Cumulative % | Total                               | % of Variance | Cumulative % | Total                             | % of Variance | Cumulative % |
| 1                               | 11.909              | 35.026        | 35.026       | 11.909                              | 35.026        | 35.026       | 7.040                             | 20.706        | 20.706       |
| 2                               | 3.897               | 11.463        | 46.489       | 3.897                               | 11.463        | 46.489       | 3.733                             | 10.979        | 31.685       |
| 3                               | 3.082               | 9.066         | 55.555       | 3.082                               | 9.066         | 55.555       | 3.173                             | 9.331         | 41.016       |
| 4                               | 1.985               | 5.837         | 61.392       | 1.985                               | 5.837         | 61.392       | 2.793                             | 8.213         | 49.230       |
| 5                               | 1.581               | 4.651         | 66.042       | 1.581                               | 4.651         | 66.042       | 2.772                             | 8.154         | 57.383       |
| 6                               | 1.478               | 4.348         | 70.390       | 1.478                               | 4.348         | 70.390       | 2.318                             | 6.818         | 64.201       |
| 7                               | 1.368               | 4.025         | 74.415       | 1.368                               | 4.025         | 74.415       | 2.253                             | 6.625         | 70.826       |
| 8                               | 1.162               | 3.418         | 77.834       | 1.162                               | 3.418         | 77.834       | 1.810                             | 5.322         | 76.149       |
| 9                               | 1.024               | 3.012         | 80.846       | 1.024                               | 3.012         | 80.846       | 1.597                             | 4.697         | 80.846       |
| 10                              | .964                | 2.836         | 83.682       |                                     |               |              |                                   |               |              |

|    |      |       |        |  |  |  |  |  |  |
|----|------|-------|--------|--|--|--|--|--|--|
| 11 | .863 | 2.537 | 86.219 |  |  |  |  |  |  |
| 12 | .776 | 2.281 | 88.500 |  |  |  |  |  |  |
| 13 | .596 | 1.752 | 90.252 |  |  |  |  |  |  |
| 14 | .557 | 1.638 | 91.890 |  |  |  |  |  |  |
| 15 | .492 | 1.448 | 93.338 |  |  |  |  |  |  |
| 16 | .353 | 1.040 | 94.377 |  |  |  |  |  |  |
| 17 | .312 | .918  | 95.295 |  |  |  |  |  |  |
| 18 | .269 | .791  | 96.086 |  |  |  |  |  |  |
| 19 | .225 | .662  | 96.747 |  |  |  |  |  |  |
| 20 | .192 | .564  | 97.312 |  |  |  |  |  |  |
| 21 | .154 | .453  | 97.765 |  |  |  |  |  |  |
| 22 | .140 | .411  | 98.176 |  |  |  |  |  |  |
| 23 | .129 | .380  | 98.556 |  |  |  |  |  |  |
| 24 | .101 | .297  | 98.853 |  |  |  |  |  |  |
| 25 | .074 | .217  | 99.070 |  |  |  |  |  |  |
| 26 | .069 | .202  | 99.272 |  |  |  |  |  |  |
| 27 | .062 | .182  | 99.455 |  |  |  |  |  |  |
| 28 | .046 | .136  | 99.591 |  |  |  |  |  |  |
| 29 | .042 | .123  | 99.714 |  |  |  |  |  |  |
| 30 | .028 | .084  | 99.798 |  |  |  |  |  |  |
| 31 | .026 | .076  | 99.874 |  |  |  |  |  |  |
| 32 | .017 | .050  | 99.923 |  |  |  |  |  |  |

|    |      |      |         |  |  |  |  |  |  |
|----|------|------|---------|--|--|--|--|--|--|
| 33 | .015 | .043 | 99.966  |  |  |  |  |  |  |
| 34 | .011 | .034 | 100.000 |  |  |  |  |  |  |

Extraction Method: Principal Component Analysis.

*Source: SPSS Data Analysis*

There are nine components with eigen value greater than one however; the first component contributes to 35%, the second contributes to 11.463%, the third contributes 9% then contribution decrease till reaching 3% for the ninth component.

The next graph plots the eigenvalues versus the extracted components

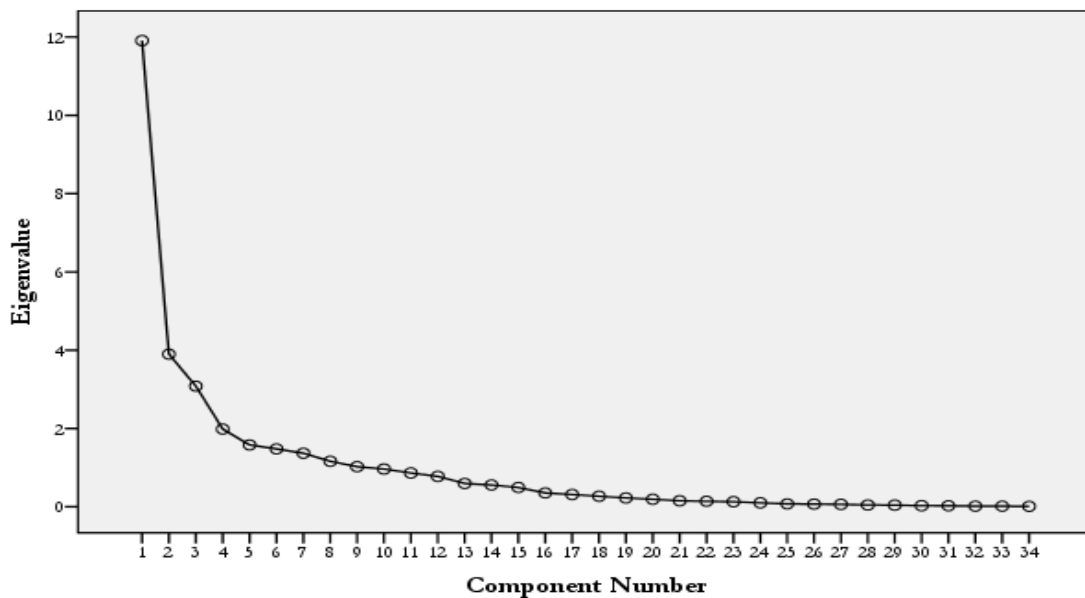


**Figure 16: Screen Plot of the component with Eigenvalues**

*Source: SPSS Data Analysis*

The researcher can conclude the component contribution as illustrated in the graph that the first component has the highest contribution then contribution decrease and after component seven the line is almost flat which explains the small contribution of the remaining components even their eigen values is greater than one.

The researcher will going for further simplification by using the rotation component matrix which main objective is to minimize the number of factors by using variables which have high loading. Rotation.

**Table 12: Rotated Component Matrixa**

|        | Component |       |      |       |       |       |       |       |       |
|--------|-----------|-------|------|-------|-------|-------|-------|-------|-------|
|        | 1         | 2     | 3    | 4     | 5     | 6     | 7     | 8     | 9     |
| I1     | .604      | .145  |      |       | .666  | .290  |       |       |       |
| I2     | .540      | .104  | .234 |       | .154  | .432  | .204  |       | -.505 |
| I3     | .392      | .183  |      | .138  | .110  | .675  | -.267 | .135  |       |
| I5     | .362      | .326  | .145 | .103  | .137  |       | .359  | .409  | .417  |
| P1     | -.561     |       | .120 | .208  |       | .465  | .182  | .344  | .330  |
| P2     |           | .601  | .502 | .194  | .273  | -.101 |       | .284  | -.124 |
| P3 Inv |           | .364  | .776 | -.131 |       |       | .194  |       | .117  |
| P4     |           | .276  | .809 | .318  |       |       |       |       |       |
| P5     | .240      | .211  |      | .121  | .275  | .733  | .225  |       |       |
| RM2    | .404      | .740  | .178 | .312  | .166  |       | .122  |       |       |
| RM3    | .223      | .776  | .196 | .164  | .222  |       | .236  | .173  | .149  |
| RM5    | .244      | .182  | .361 | .210  |       |       |       | .544  | .434  |
| RM6    |           |       | .874 |       |       |       |       | .216  |       |
| RM7    | .235      |       | .307 |       |       | .184  |       | .744  |       |
| A1     | .230      | .240  | .189 | .196  | .679  | .233  | .285  | -.107 | .120  |
| A2 Inv |           | .168  | .230 | .532  |       |       | .589  | -.211 |       |
| A3     | .351      | .166  |      | .493  | .435  | .205  |       |       | .388  |
| A4     | .408      | .133  |      | .159  | .799  |       | .106  | .109  |       |
| A5     | .302      | -.115 | .309 | .656  | -.159 | -.206 |       | .204  | .119  |

|                                                     |      |       |       |       |       |       |      |       |      |
|-----------------------------------------------------|------|-------|-------|-------|-------|-------|------|-------|------|
| SR1                                                 | .767 | .329  |       |       | .270  |       | .142 |       | .140 |
| SR3                                                 | .374 | .191  | -.145 | .629  | .159  | .250  |      | .335  |      |
| SR4                                                 | .222 | .182  | .115  | .754  | .269  | .290  |      |       |      |
| MS1<br>Inv                                          |      | .720  |       |       | .118  | .445  |      |       |      |
| MS2<br>Inv                                          |      | .697  | .105  |       |       | .161  | .412 | -.189 |      |
| MS3                                                 | .275 | .176  |       |       | .110  |       | .797 | .107  |      |
| MS4                                                 | .333 | .405  |       | .273  | -.411 |       | .444 | .260  |      |
| MS5                                                 | .800 | .213  |       | .198  | .288  |       |      | .212  |      |
| MS6                                                 | .872 |       |       |       | .224  | .148  |      | .132  | .216 |
| MS7                                                 | .459 |       | .295  |       |       | .180  |      |       | .700 |
| MS8                                                 | .800 |       | .166  | .128  |       |       | .114 | .184  |      |
| MS9<br>Inv                                          |      | .292  | -.172 | -.103 | .433  | .227  | .554 |       | .106 |
| R1                                                  | .897 | .145  |       | .160  |       | .218  |      |       |      |
| R2                                                  | .592 | -.259 | .229  | .387  |       | .264  |      |       |      |
| R3                                                  | .753 |       | .205  | .192  | .164  | -.126 |      |       |      |
| Extraction Method: Principal Component Analysis.    |      |       |       |       |       |       |      |       |      |
| Rotation Method: Varimax with Kaiser Normalization. |      |       |       |       |       |       |      |       |      |
| a. Rotation converged in 12 iterations.             |      |       |       |       |       |       |      |       |      |

*Source: SPSS Data Analysis*

All values less than 0.1 loading were suppressed. The researcher is concentrating on the higher absolute value of the variable loading. Most of the variables were loaded into factor 1. The researcher can conclude that each group of variable achieves higher loading which results in a high level of construct validity.

#### 4.1.3 Demographics Analysis

The researcher analyses gender, position, age of the company and number of employees for the demographic analysis through using both bar charts.

##### 4.2.2.1 Gender

The next figure shows the sample distribution across males and females

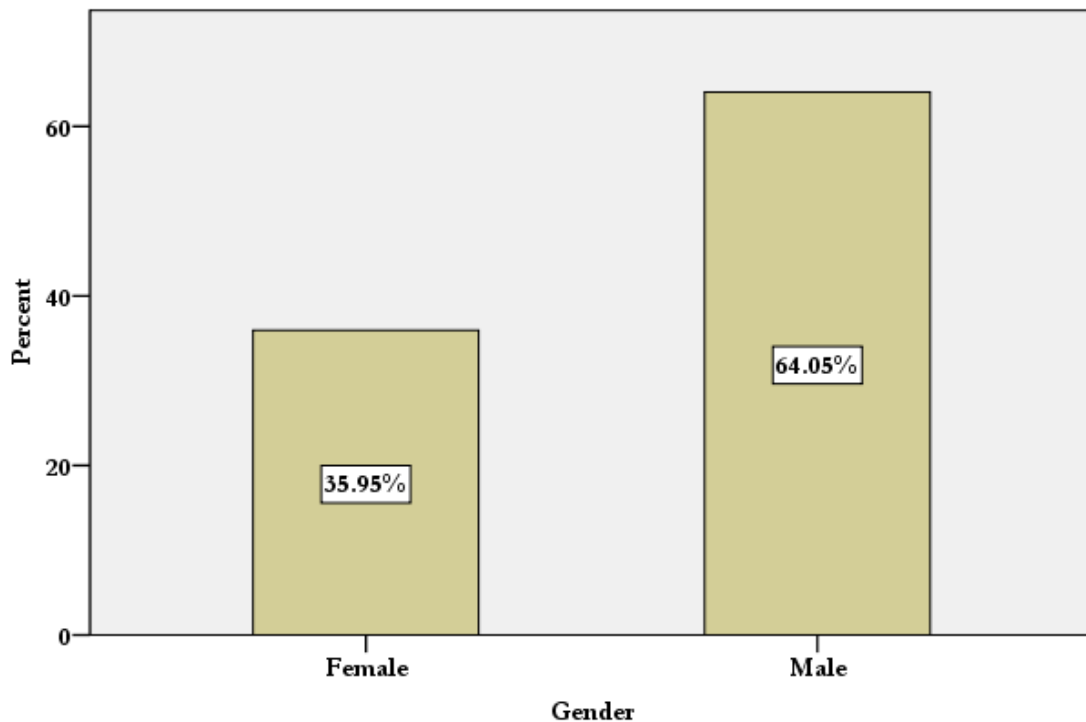


**Figure 17: Gender Distribution of the Sample**

*Source: SPSS Data Analysis*

Males contribution in the survey reaches 64.05% from the whole sample and female contribution reaches 35.95%.

There is no bias in the sample toward either male or female.

#### 4.2.2.2 Position

The researcher categorizes the respondent positions into three groups. The first group stand for employee, the second group stand for middle management position and finally the third and last group stand for owner or CEO.

The next figure shows bar chart distribution of sample position across the different three groups.

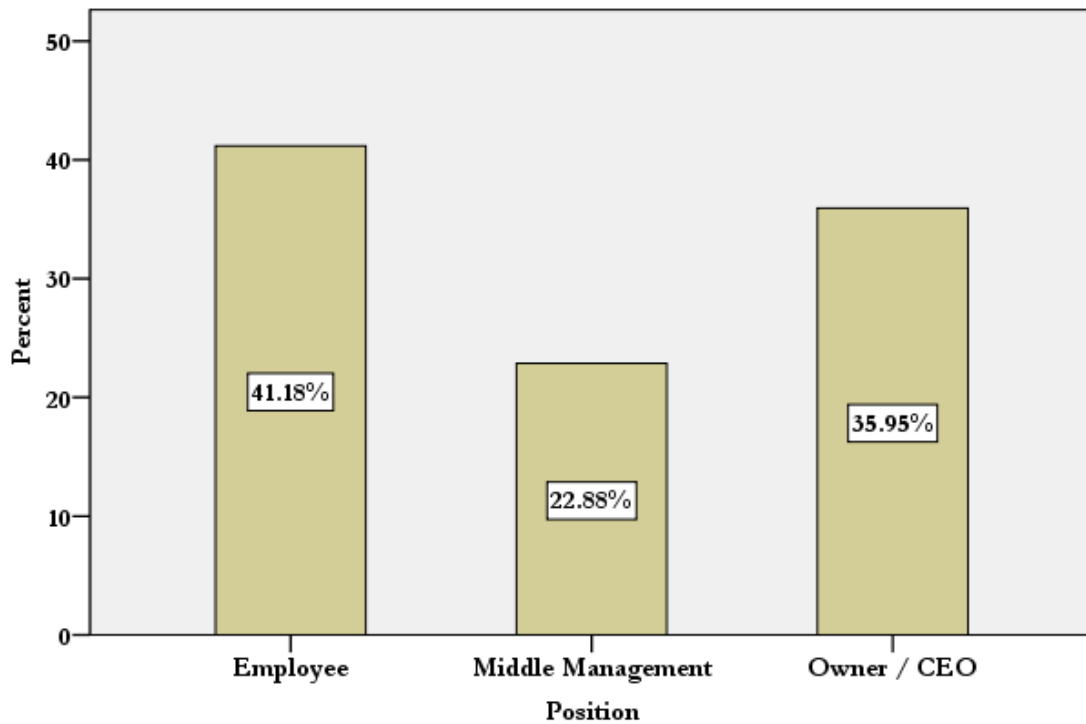


**Figure 18: Position Distribution of the Sample**

*Source: SPSS Data Analysis*

The first group (employee) contributes with 41.18% from the whole sample followed by group three (Owner or CEO) at 35.95% and finally the second group (middle management position) at 22.88%.

#### 4.2.2.3 Age of the Company

The researcher categorizes the age of the company into three groups. The first group stand for 1-5 years, the second group stand for 6-10 years and finally the third and last group stand for above 10 years

The next figure shows bar chart distribution of sample position across the different three groups

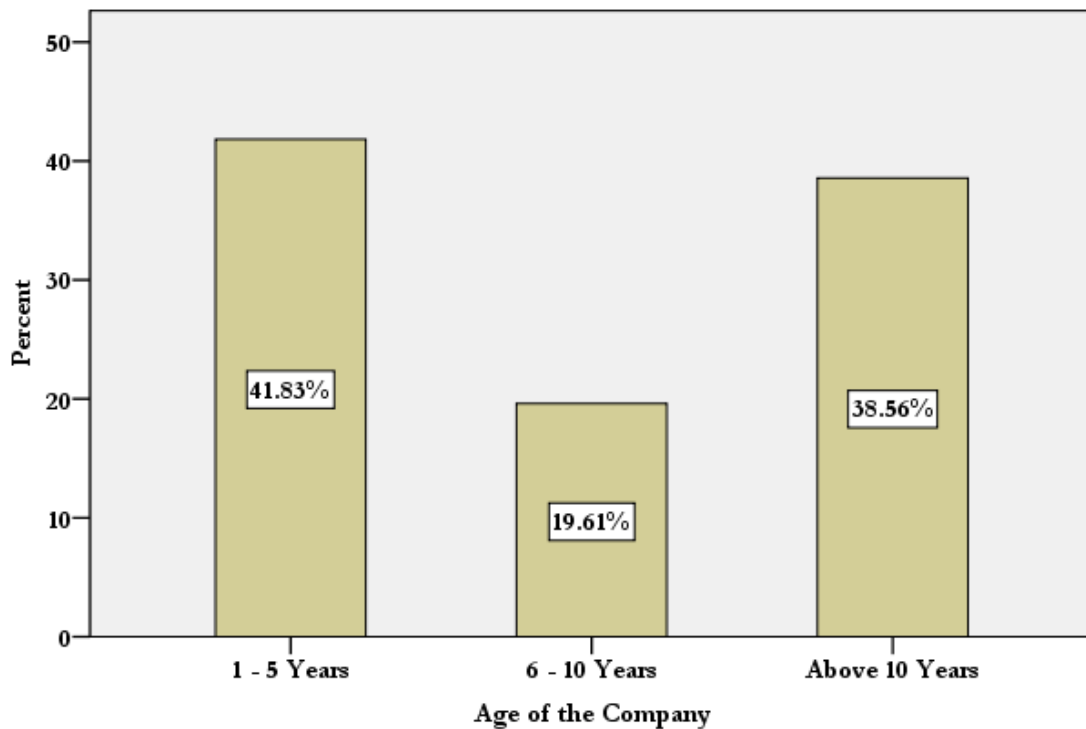


**Figure 19: Age of the Company Distribution of the Sample**

*Source: SPSS Data Analysis*

The first group (1-5 years) contributes with 41.83% from the whole sample followed by group three (above 10 years) at 38.56% and finally the second group (6-10 years) at 19.61%.

#### 4.2.2.4 Number of Employees

The researcher categorizes the number of employees into three groups. The first group stand for up to 5 employees, the second group stand for 6-50 employee and finally the third and last group stand for 51-100 employees.

The next figure shows bar chart distribution of sample position across the different three groups.

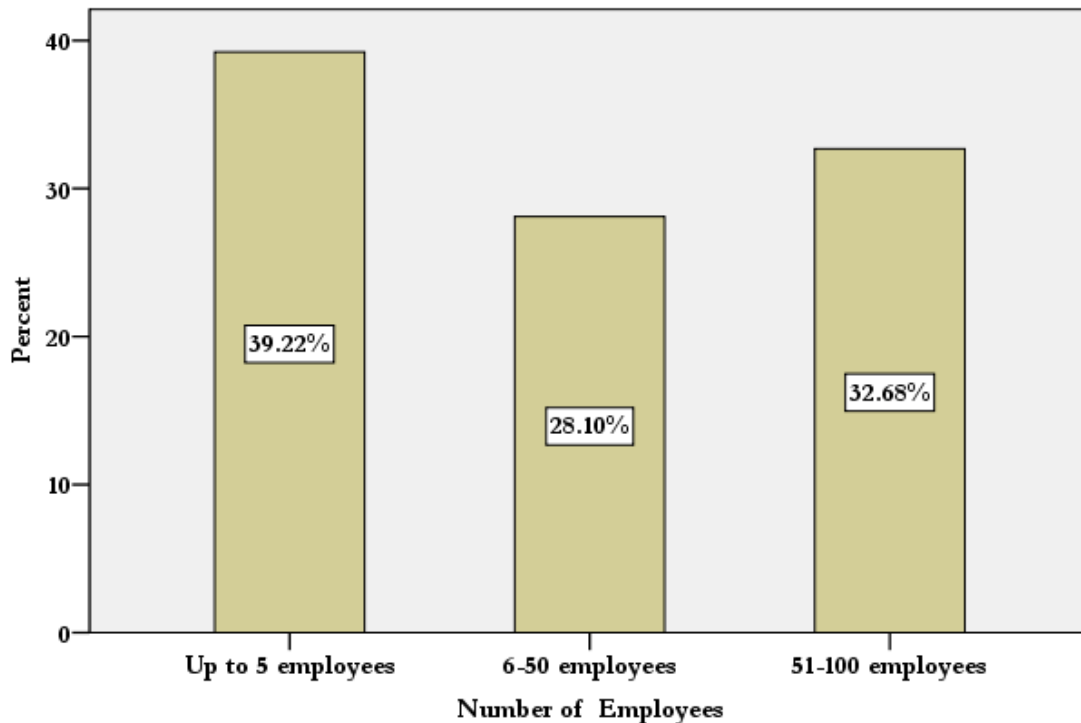


**Figure 20: Number of Employee Distribution of the Sample**

*Source: SPSS Data Analysis*

The first group (up to 5 employees) contributes with 39.22% from the whole sample followed by group three (51-100 employees) at 32.68% and finally the second group (6-50 employees) at 28.10%.

#### 4.1.4 Theoretical Framework Questions

The researcher analysis the questionnaire questions in this section in terms of median, mode, minimum, maximum, percentiles.

**Min:** shows the minimum value of all respondent selection

**Max:** shows the maximum value of all respondent selection

**Mode:** shows the most repetitive appeared value

**Median:** is the middle value after sorting the responded answer; where 50% of the collected sample appears above it

**Percentiles 25%:** is the first quarter value after sorting the responded answer; where 25% of the collected sample appears below it

**Percentiles 75%:** is the third quarter value after sorting the responded answer; where 75% of the collected sample appears below it

**Table 13: Descriptive Statistics of Model Questions**

|        | N     |         | Median | Mode           | Minimum | Maximum | Percentiles |      |
|--------|-------|---------|--------|----------------|---------|---------|-------------|------|
|        | Valid | Missing |        |                |         |         | 25          | 75   |
| I1     | 153   | 0       | 4.00   | 4              | 1       | 5       | 3.00        | 4.00 |
| I2     | 153   | 0       | 3.00   | 3              | 2       | 5       | 3.00        | 4.00 |
| I3     | 153   | 0       | 3.00   | 4              | 1       | 5       | 3.00        | 4.00 |
| I4     | 153   | 0       | 4.00   | 4 <sup>a</sup> | 2       | 5       | 4.00        | 5.00 |
| P1     | 153   | 0       | 5.00   | 5              | 2       | 5       | 4.00        | 5.00 |
| P2     | 153   | 0       | 3.00   | 3              | 2       | 5       | 3.00        | 5.00 |
| P3 Inv | 153   | 0       | 3.00   | 3              | 1       | 5       | 2.00        | 4.00 |
| P4     | 153   | 0       | 4.00   | 4              | 1       | 5       | 3.00        | 4.00 |
| P5     | 153   | 0       | 4.00   | 4              | 1       | 5       | 3.00        | 5.00 |

|            |     |   |      |   |   |   |      |      |
|------------|-----|---|------|---|---|---|------|------|
| RM1        | 153 | 0 | 4.00 | 4 | 1 | 5 | 2.00 | 4.00 |
| RM2        | 153 | 0 | 4.00 | 4 | 2 | 5 | 3.00 | 4.00 |
| RM3        | 153 | 0 | 4.00 | 4 | 2 | 5 | 3.00 | 4.00 |
| RM4        | 153 | 0 | 3.00 | 3 | 1 | 5 | 3.00 | 4.00 |
| RM5        | 153 | 0 | 4.00 | 4 | 1 | 5 | 3.00 | 4.00 |
| A1         | 153 | 0 | 4.00 | 4 | 2 | 5 | 3.00 | 4.00 |
| A2 Inv     | 153 | 0 | 4.00 | 4 | 1 | 5 | 3.00 | 4.00 |
| A3         | 153 | 0 | 4.00 | 5 | 2 | 5 | 4.00 | 5.00 |
| A4         | 153 | 0 | 4.00 | 4 | 2 | 5 | 3.00 | 4.00 |
| A5         | 153 | 0 | 4.00 | 4 | 3 | 5 | 4.00 | 4.00 |
| SR1        | 153 | 0 | 4.00 | 4 | 2 | 5 | 3.00 | 4.00 |
| SR3        | 153 | 0 | 4.00 | 4 | 2 | 5 | 3.00 | 4.00 |
| SR4        | 153 | 0 | 4.00 | 4 | 2 | 5 | 3.00 | 5.00 |
| MS1<br>Inv | 153 | 0 | 3.00 | 2 | 1 | 5 | 2.00 | 4.00 |
| MS2<br>Inv | 153 | 0 | 3.00 | 3 | 1 | 5 | 2.00 | 3.00 |
| MS3        | 153 | 0 | 4.00 | 5 | 2 | 5 | 3.00 | 5.00 |
| MS4        | 153 | 0 | 5.00 | 5 | 1 | 5 | 4.00 | 5.00 |
| MS5        | 153 | 0 | 4.00 | 5 | 2 | 5 | 4.00 | 5.00 |
| MS6        | 153 | 0 | 4.00 | 5 | 2 | 5 | 3.00 | 5.00 |
| MS7        | 153 | 0 | 4.00 | 3 | 1 | 5 | 3.00 | 5.00 |

|                                                      |     |   |      |   |   |   |      |      |
|------------------------------------------------------|-----|---|------|---|---|---|------|------|
| MS8                                                  | 153 | 0 | 3.00 | 3 | 2 | 5 | 3.00 | 4.00 |
| MS9                                                  | 153 | 0 | 4.00 | 4 | 1 | 5 | 3.00 | 4.00 |
| Inv                                                  |     |   |      |   |   |   |      |      |
| R1                                                   | 153 | 0 | 4.00 | 5 | 1 | 5 | 3.00 | 5.00 |
| R2                                                   | 153 | 0 | 3.00 | 3 | 1 | 5 | 3.00 | 4.00 |
| R3                                                   | 153 | 0 | 4.00 | 5 | 2 | 5 | 3.00 | 5.00 |
| PS1                                                  | 153 | 0 | 4.00 | 4 | 2 | 5 | 3.00 | 4.00 |
| PS2                                                  | 153 | 0 | 4.00 | 4 | 2 | 5 | 4.00 | 4.00 |
| PS3                                                  | 153 | 0 | 4.00 | 4 | 2 | 5 | 3.00 | 4.00 |
| PS4                                                  | 153 | 0 | 4.00 | 4 | 1 | 5 | 3.00 | 4.00 |
| PS5                                                  | 153 | 0 | 4.00 | 4 | 2 | 5 | 3.00 | 4.00 |
| PS6                                                  | 153 | 0 | 4.00 | 4 | 2 | 5 | 3.00 | 4.00 |
| a. Multiple modes exist. The smallest value is shown |     |   |      |   |   |   |      |      |

*Source: SPSS Data Analysis*

The researcher presents the conclusion of the previous table grouped in each set of questions per variable

**Innovation:** the innovation independent variable consists of four questions coded from I1 to I4. The minimum value for all questions is either strongly disagree or disagree and the maximum value is strongly agree for all questions. The median value is either neutral or agree. The mode value is either neutral or agree. The first quarter for three questions out of four is neutral and their corresponding third quarter is agree. The first quarter of the fourth question is agree and its corresponding third quarter is strongly agree.

From these finding, the researcher can conclude that there is a moderate tendency toward agreement of the innovation independent variable questions

**Pro-activeness:** The Pro-activeness independent variable consists of five questions coded from P1 to P5. The minimum value for all questions is either strongly disagree or disagree and the maximum value is strongly agree for all questions. The median value is either neutral, agree or strongly agree. The mode value takes the same trend of median for the same questions taking a value of either neutral, agree or strongly agree. The first quarter for all questions is either disagree, neutral or agree. The third quarter for all questions is either agree or strongly agree

From these finding, the researcher can conclude that there is a moderate tendency toward agreement of the Pro-activeness independent variable questions

**Risk Management:** The risk Management independent variable consists of five questions coded from RM1 to RM5. The minimum value for all questions is either strongly disagree or disagree and the maximum value is strongly agree for all questions. The median value is agree except for RM4 which is neutral. The mode value takes the same trend of median for the same questions taking a value of agree except for RM4 which is neutral. The first quarter for all questions is neutral except for RM1 which is disagree. The third quarter for all questions is agree

From these finding, the researcher can conclude that there is a moderate tendency toward agreement of the risk management independent variable questions

**Autonomy:** The autonomy independent variable consists of five questions coded from A1 to A5. The minimum value for all questions is either strongly disagree, disagree or neutral and the maximum value for all questions is strongly agree. The median value for all questions is agree. The mode value for all questions is agree except for question A3 which is strongly agree. The first quarter for three questions out of five is neutral and their corresponding third quarter is agree. The first quarter for two questions out of five is agree and their corresponding third quarter is strongly agree

From these finding, the researcher can conclude that there is a high tendency toward agreement of the autonomy independent variable questions

**Strategic & Resource Orientation:** The Strategic & Resource Orientation independent variable consists of three questions coded from SR1 to SR3. The minimum value for all

questions is disagree and the maximum value for all questions is strongly agree. The median value for all questions is agree. The mode value for all questions is agree. The first quarter for all questions is neutral. The third quarter for all questions is either agree or strongly agree.

From these finding, the researcher can conclude that there is a high tendency toward agreement of the Strategic & Resource Orientation independent variable questions

**Management Structure and Culture:** The Management Structure and Culture independent variable consists of nine questions coded from MS1 to MS9. The minimum value for all questions is either strongly disagree or disagree and the maximum value for all questions is strongly agree. The median value for all questions is either neutral, agree or strongly agree. The mode value for all questions is either neutral or strongly agree except for MS1 Inv which is disagree and MS9 Inv which is agree. The first quarter for all questions is either disagree, neutral or agree. The third quarter for all questions is either neutral, agree or strongly agree.

From these finding, the researcher can conclude that there is a high tendency toward agreement of the Management Structure and Culture independent variable questions.

**Reward Philosophy:** The Reward Philosophy independent variable consists of three questions coded from R1 to R3. The minimum value for all questions is either strongly disagree or disagree and the maximum value for all questions is strongly agree. The median value for question R2 is neutral and its corresponding mode value is neutral as well. The median value for questions R1 and R3 is agree and its corresponding mode value is strongly agree. The first quarter for all questions is neutral. The third quarter for all questions is either agree or strongly agree.

From these finding, the researcher can conclude that there is a moderate tendency toward agreement of the Reward Philosophy independent variable questions

**SME Performance:** The SME Performance dependent variable consists of six questions coded from PS1 to PS6. The minimum value for all questions is either strongly disagree or disagree and the maximum value for all questions is strongly agree. The median value for all questions is agree. The mode value for all questions is agree. The first quarter for all

questions is neutral except for PS2 which is agree. The third quarter for all questions is agree.

From these finding, the researcher can conclude that there is a high tendency toward agreement of the SME Performance dependent variable questions.

#### 4.1.5 Theoretical Framework Variables

The researcher constructs the variables through summing the responded answers on every set of questions per variable then divides this summation on the number of questions per variable, this results changes scale into interval scale where the difference between every two points remains the same (Sekaran, 2003).

The following table shows the descriptive statistics for the computed variables in terms of minimum, maximum, mean and standard deviation.

**Table 14: Descriptive Statistics of Computed Variables**

| <b>Variables</b>                    | <b>N</b> | <b>Minimu<br/>m</b> | <b>Maximu<br/>m</b> | <b>Mean</b> | <b>Std.<br/>Deviation</b> |
|-------------------------------------|----------|---------------------|---------------------|-------------|---------------------------|
| Innovation                          | 153      | 2.0                 | 5.0                 | 3.649       | .7143                     |
| Pro-activeness                      | 153      | 1.4                 | 5.0                 | 3.664       | .6311                     |
| Risk Management                     | 153      | 1.6                 | 5.0                 | 3.546       | .6625                     |
| Autonomy                            | 153      | 2                   | 5                   | 3.78        | .581                      |
| Strategic & Resource<br>Orientation | 153      | 2.00                | 5.00                | 3.77        | .7296                     |
| Management Structure<br>and Culture | 153      | 2.00                | 4.77                | 3.643       | .5724                     |
| Reward Philosophy                   | 153      | 2                   | 5                   | 3.54        | .971                      |
| SME Performance                     | 153      | 2.333               | 5.00                | 3.72        | .606                      |

*Source: SPSS Data Analysis*

The minimum value for all variables ranges from 1.4 to 2.33 which shows a tendency toward disagreement. The maximum value for all variables is 5 except for management structure and culture which is 4.77, this conclude the total agreement. The mean value for all variable ranges from 3.54 to 3.77 which shows a tendency toward agreement on these variables.

The standard deviation which represent the deviation of the data across mean; all variables has a standard deviation below 2 which shows a small deviation

## **4.2 INFERENTIAL DATA ANALYSIS**

The inferential data analysis part consists of five parts; part one introduce normality test for checking using either parametric or not parametric analysis, section two introduce the correlation analysis for measuring the one to one relationship between the independent and dependent variable, section three introduces the regression analysis in order to construct one equation for all independent variable toward the dependent variable, section four introduce the moderation effect and finally section five summarize the hypothesis testing conclusion.

### **4.2.1 Normality Test**

The normality tests the distribution of the variables in order to decide which a parametric or non-parametric analysis shall be used (Sekaran, 2003). The researcher will use a parametric data analysis for a normally distributed variables and a non-parametric data analysis for a not normally distributed variable.

The researcher uses Kolmogorov-Smirnov statistic and Shapiro-Wilk test for the normality analysis (Sekaran, 2003).

The sig value outcome from the normality test ranges from zero to one; a significant test has a sig value of less than 0.05 which indicates a not normally distributed variables and a sig value of greater than 0.05 indicates a not significant test and the variables is normally distributed.

**Table 15: Normality Test for the Theoretical Framework Variables**

| <b>Variables</b>                      | <b>Kolmogorov-Smirnov<sup>a</sup></b> |           |             | <b>Shapiro-Wilk</b>   |           |             |
|---------------------------------------|---------------------------------------|-----------|-------------|-----------------------|-----------|-------------|
|                                       | <b>Statisti<br/>c</b>                 | <b>df</b> | <b>Sig.</b> | <b>Statisti<br/>c</b> | <b>df</b> | <b>Sig.</b> |
| Innovation                            | .215                                  | 153       | .000        | .921                  | 153       | .000        |
| Pro-activeness                        | .133                                  | 153       | .000        | .945                  | 153       | .000        |
| Risk Management                       | .122                                  | 153       | .000        | .951                  | 153       | .000        |
| Autonomy                              | .214                                  | 153       | .000        | .939                  | 153       | .000        |
| Entrepreneurial<br>Orientation        | .131                                  | 153       | .000        | .951                  | 153       | .000        |
| Strategic & Resource<br>Orientation   | .183                                  | 153       | .000        | .925                  | 153       | .000        |
| Management Structure<br>and Culture   | .119                                  | 153       | .000        | .970                  | 153       | .002        |
| Reward Philosophy                     | .126                                  | 153       | .000        | .941                  | 153       | .000        |
| Entrepreneurial<br>Management         | .082                                  | 153       | .013        | .974                  | 153       | .006        |
| SME Performance                       | .140                                  | 153       | .000        | .960                  | 153       | .000        |
| a. Lilliefors Significance Correction |                                       |           |             |                       |           |             |

*Source: SPSS Data Analysis*

The sig value for all the independent and dependent variables is less than 0.05 so the test is significant, and the variables are not normally distributed so a non-parametric analysis will be used in the rest of the analysis.

The Q-Q plot which shows the expected against observed values for each variable is presented in the appendix B.

#### 4.2.2 Correlation Analysis

The researcher intended to measure the one to one relationship between each independent and dependent variable. The outcome from the normality test shows a not normally distributed variables so the researcher uses a non-parametric correlation test called Sperman's rank.

The Sperman's rank test has three outcomes; N represents the sample size, sig which represents the significance of the test and correlation coefficient which indicates the strength of the relationship.

The Sperman's rank test is significant at 0.01 level if the sig value is less than 0.01 and significant at 0.05 level if the sig value is less than 0.05. the test is not significant if the sig value is greater than 0.05.

The relationship between the measured two variables is week if the correlation coefficient is less than 0.3, the relation is medium if the correlation coefficient is less than 0.5 and greater than 0.3 and finally a strong relation for a correlation coefficient of greater than 0.5.

**Table 16: Spearman's rho Correlation Test**

| <b>Variables</b> | <b>Spearman Test Outcome</b> | <b>SME Performance</b> |
|------------------|------------------------------|------------------------|
| Innovation       | Correlation Coefficient      | .731**                 |
|                  | Sig. (2-tailed)              | .000                   |
|                  | N                            | 153                    |
| Pro-activeness   | Correlation Coefficient      | .249**                 |
|                  | Sig. (2-tailed)              | .002                   |
|                  | N                            | 153                    |
| Risk Management  | Correlation Coefficient      | .440**                 |
|                  | Sig. (2-tailed)              | .000                   |
|                  | N                            | 153                    |

|                                  |                         |        |
|----------------------------------|-------------------------|--------|
| Autonomy                         | Correlation Coefficient | .591** |
|                                  | Sig. (2-tailed)         | .000   |
|                                  | N                       | 153    |
| Entrepreneurial Orientation      | Correlation Coefficient | .578** |
|                                  | Sig. (2-tailed)         | .000   |
|                                  | N                       | 153    |
| Strategic & Resource Orientation | Correlation Coefficient | .552** |
|                                  | Sig. (2-tailed)         | .000   |
|                                  | N                       | 153    |
| Management Structure and Culture | Correlation Coefficient | .656** |
|                                  | Sig. (2-tailed)         | .000   |
|                                  | N                       | 153    |
| Reward Philosophy                | Correlation Coefficient | .822** |
|                                  | Sig. (2-tailed)         | .000   |
|                                  | N                       | 153    |
| Entrepreneurial Management       | Correlation Coefficient | .770** |
|                                  | Sig. (2-tailed)         | .000   |
|                                  | N                       | 153    |

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

*Source: SPSS Data Analysis*

The researcher presents the outcome of the correlation analysis in the following points

- The relationship between innovation and SME Performance is significant at 0.01 levels as their sig value is less than 0.01. The relationship has the same direction as

the sign of the correlation coefficient is positive. The relationship is strong as the correlation coefficient value is 0.731. The researcher can reject the null hypothesis for the relationship between innovation and SME Performance.

- The relationship between Pro-activeness and SME Performance is significant at 0.01 levels as their sig value is less than 0.01. The relationship has the same direction as the sign of the correlation coefficient is positive. The relationship is weak as the correlation coefficient value is 0.249. The researcher can reject the null hypothesis for the relationship between Pro-activeness and SME Performance
- The relationship between Risk Management and SME Performance is significant at 0.01 levels as their sig value is less than 0.01. The relationship has the same direction as the sign of the correlation coefficient is positive. The relationship is moderate as the correlation coefficient value is 0.440. The researcher can reject the null hypothesis for the relationship between Risk Management and SME Performance
- The relationship between Autonomy and SME Performance is significant at 0.01 levels as their sig value is less than 0.01. The relationship has the same direction as the sign of the correlation coefficient is positive. The relationship is strong as the correlation coefficient value is 0.591. The researcher can reject the null hypothesis for the relationship between Autonomy and SME Performance
- The relationship between Entrepreneurial Orientation and SME Performance is significant at 0.01 levels as their sig value is less than 0.01. The relationship has the same direction as the sign of the correlation coefficient is positive. The relationship is strong as the correlation coefficient value is 0.578. The researcher can reject the null hypothesis for the relationship between Entrepreneurial Orientation and SME Performance
- The relationship between Strategic & Resource Orientation and SME Performance is significant at 0.01 levels as their sig value is less than 0.01. The relationship has the same direction as the sign of the correlation coefficient is positive. The relationship is strong as the correlation coefficient value is 0.552. The researcher can reject the null hypothesis for the relationship between Strategic & Resource Orientation and SME Performance

- The relationship between Management Structure and Culture and SME Performance is significant at 0.01 levels as their sig value is less than 0.01. The relationship has the same direction as the sign of the correlation coefficient is positive. The relationship is strong as the correlation coefficient value is 0.656. The researcher can reject the null hypothesis for the relationship between Management Structure and Culture and SME Performance
- The relationship between Reward Philosophy and SME Performance is significant at 0.01 levels as their sig value is less than 0.01. The relationship has the same direction as the sign of the correlation coefficient is positive. The relationship is strong as the correlation coefficient value is 0.822. The researcher can reject the null hypothesis for the relationship between Reward Philosophy and SME Performance
- The relationship between Entrepreneurial Management and SME Performance is significant at 0.01 levels as their sig value is less than 0.01. The relationship has the same direction as the sign of the correlation coefficient is positive. The relationship is strong as the correlation coefficient value is 0.770. The researcher can reject the null hypothesis for the relationship between Entrepreneurial Management and SME Performance

#### **4.2.3 Regression Analysis**

Linear regression groups a set of independent variables into one equation toward the dependent variable. The liner regression is a parametric test however there are assumption to violate the normality results in order to use a not normally distributed variable in the regression analysis.

The assumption of normality can be violated in case of large sample size and the parametric regression test can be used for not normally distributed variables (Green et al, 2000)

The large sample size should satisfy the condition of larger than 10 times the number of predictors in addition to 104 more than eight times the number of predictors (Field, 2005).

#### 4.3.3.1 Impact of Entrepreneurial Orientation Factors on SME Performance

The Entrepreneurial Orientation consists of four factors which indicates the number of predictors namely; Innovation, Pro-activeness, Risk Management and Autonomy.

The researcher collects 153 samples which is large enough to satisfy the condition of more than 10 times the number of predictors (40 sample) in addition to 104 more than eight times the number of predictors ( $104+8*4$ ).

The next table shows both of R square that represents the variation in the dependent variable that is explained by the proposed model and the analysis of variance (ANOVA) test.

**Table 17: R Square and ANOVA Analysis for the Regression Model**

| Model  | R Square | ANOVA  |                   |
|--------|----------|--------|-------------------|
|        |          | F      | Sig               |
| Model1 | 0.643    | 66.626 | .000 <sup>a</sup> |

a. Predictors: (Constant), Autonomy, Pro-activeness, Innovation, Risk Management

b. Dependent Variable: SME Performance

Source: SPSS Data Analysis

The proposed model is statistically significant as the sig value is less than 0.05. The proposed model explains 64.3% from the variation in the dependent variable.

The next table show the significance of each coefficient of the proposed regression models

**Table 18: Coefficient of the Stepwise Regression Models**

| Model |                | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|----------------|-----------------------------|------------|---------------------------|--------|------|
|       |                | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant)     | .854                        | .219       |                           | 3.907  | .000 |
|       | Innovation     | .507                        | .056       | .597                      | 9.031  | .000 |
|       | Pro-activeness | -.087                       | .075       | -.091                     | -1.168 | .245 |

|                                        |                 |      |      |      |       |      |
|----------------------------------------|-----------------|------|------|------|-------|------|
|                                        | Risk Management | .125 | .079 | .136 | 1.575 | .118 |
|                                        | Autonomy        | .237 | .069 | .227 | 3.428 | .001 |
| a. Dependent Variable: SME Performance |                 |      |      |      |       |      |

*Source: SPSS Data Analysis*

The coefficients of the predictors are the B values for unstandardized equation and are Beta values for standardized equation.

Both of innovation and autonomy is significant as their sig value is less than 0.05. Both of Pro-activeness and risk management is not significant as their sig value is greater than 0.05.

The researcher can reject the null hypothesis for the relationship between innovation and SME performance in addition to the relationship between autonomy and SME performance. The researcher fails to reject the null hypotheses for the relationship between Pro-activeness and SME performance in addition to the relationship between risk management and SME performance.

#### **4.3.3.2 Impact of Entrepreneurial Management Factors on SME Performance**

The Entrepreneurial Management consists of three factors which indicates the number of predictors namely; Strategic & Resource Orientation, Management Structure and Culture and Reward Philosophy.

The researcher collects 153 samples which is large enough to satisfy the condition of more than 10 times the number of predictors (30 sample) in addition to 104 more than eight times the number of predictors ( $104 + 8 \times 3$ ).

The next table shows both of R square that represents the variation in the dependent variable that is explained by the proposed model and the analysis of variance (ANOVA) test.

**Table 19: R Square and ANOVA Analysis for the Regression Model**

| <b>Model</b> | <b>R Square</b> | <b>ANOVA</b> |                   |
|--------------|-----------------|--------------|-------------------|
|              |                 | <b>F</b>     | <b>Sig</b>        |
| Model1       | 0.735           | 137.64       | .000 <sup>a</sup> |

a. Predictors: (Constant), Reward Philosophy, Management Structure and Culture, Strategic & Resource Orientation

b. Dependent Variable: SME Performance

*Source: SPSS Data Analysis*

The proposed model is statistically significant as the sig value is less than 0.05. The proposed model explains 73.5% from the variation in the dependent variable.

The next table show the significance of each coefficient of the proposed regression models

**Table 20: Coefficient of the Regression Models**

| <b>Model</b> |                                  | <b>Unstandardized Coefficients</b> |                   | <b>Standardized Coefficients</b> | <b>T</b> | <b>Sig.</b> |
|--------------|----------------------------------|------------------------------------|-------------------|----------------------------------|----------|-------------|
|              |                                  | <b>B</b>                           | <b>Std. Error</b> | <b>Beta</b>                      |          |             |
| 1            | (Constant)                       | 1.312                              | .170              |                                  | 7.703    | .000        |
|              | Strategic & Resource Orientation | .040                               | .057              | .048                             | .707     | .481        |
|              | Management Structure and Culture | .211                               | .066              | .199                             | 3.190    | .002        |
|              | Reward Philosophy                | .421                               | .040              | .675                             | 10.501   | .000        |

a. Dependent Variable: SME Performance

Source: SPSS Data Analysis

The coefficients of the predictors are the B values for unstandardized equation and are Beta values for standardized equation.

Both of Management Structure and Culture and Reward Philosophy is significant as their sig value is less than 0.05. Strategic & Resource Orientation is not significant as their sig value is greater than 0.05.

The researcher can reject the null hypothesis for the relationship between Management Structure and Culture and SME performance in addition to the relationship between Reward Philosophy and SME performance. The researcher fails to reject the null hypotheses for the relationship between Strategic & Resource Orientation and SME performance.

#### 4.3.3.3 Impact of both of Entrepreneurial Orientation and Entrepreneurial Management on SME Performance

The researcher collects 153 samples which is large enough to satisfy the condition of more than 10 times the number of predictors (20 sample) in addition to 104 more than eight times the number of predictors ( $104+8*2$ ).

The next table shows both of R square that represents the variation in the dependent variable that is explained by the proposed model and the analysis of variance (ANOVA) test.

**Table 21: R Square and ANOVA Analysis for the Regression Model**

| Model  | R Square | ANOVA   |                   |
|--------|----------|---------|-------------------|
|        |          | F       | Sig               |
| Model1 | 0.656    | 143.225 | .000 <sup>a</sup> |

a. Predictors: (Constant), Entrepreneurial Management, Entrepreneurial Orientation

b. Dependent Variable: SME Performance

Source: SPSS Data Analysis

The proposed model is statistically significant as the sig value is less than 0.05. The proposed model explains 65.6% from the variation in the dependent variable.

The next table show the significance of each coefficient of the proposed regression models

**Table 22: Coefficient of the Regression Models**

| Model |                             | Unstandardized Coefficients |            | Standardized Coefficients | T     | Sig. |
|-------|-----------------------------|-----------------------------|------------|---------------------------|-------|------|
|       |                             | B                           | Std. Error | Beta                      |       |      |
| 1     | (Constant)                  | .642                        | .203       |                           | 3.158 | .002 |
|       | Entrepreneurial Orientation | .151                        | .091       | .132                      | 1.663 | .098 |
|       | Entrepreneurial Management  | .692                        | .079       | .701                      | 8.818 | .000 |

a. Dependent Variable: SME Performance

Source: SPSS Data Analysis

The coefficients of the predictors are the B values for unstandardized equation and are Beta values for standardized equation.

Entrepreneurial Management is significant as its sig value is less than 0.05. Entrepreneurial Orientation is not significant as their sig value is greater than 0.05.

The researcher can reject the null hypothesis for the relationship between Entrepreneurial Management and SME performance. The researcher fails to reject the null hypotheses for the relationship between Entrepreneurial Orientation and SME performance

#### 4.3.4 Moderating Analysis

The researcher uses two moderating variables; company age and company size. The researcher proposed an impact on both of the moderating variables on the relationship between Entrepreneurial Orientation and SME performance in addition to the relationship between Entrepreneurial management and SME performance. The researcher uses linear regression in the moderating analysis.

##### 4.2.3.1 Company Age

The next table shows the model summary after including the moderating effect. This is calculated after standardizing both of the independent and moderating variables then creating an interaction variable after multiplying the standardized variables.

**Table 23: Regression Model Summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .810 <sup>a</sup> | .656     | .645              | .361415456252417           |

a. Predictors: (Constant), I\_EntrManagement\_ComAge, Zscore: Entrepreneurial Orientation, Zscore: Age of the Company\_Numerical, I\_EntrOrientation\_ComAge, Zscore: Entrepreneurial Management

Source: SPSS Data Analysis

The proposed model has R square of 65.6%.

**Table 24: ANOVA Model Summary**

| Model                                                                                                                                                                                       |            | Sum of Squares | df  | Mean Square | F      | Sig.              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|-----|-------------|--------|-------------------|
| 1                                                                                                                                                                                           | Regression | 36.688         | 5   | 7.338       | 56.174 | .000 <sup>a</sup> |
|                                                                                                                                                                                             | Residual   | 19.201         | 147 | .131        |        |                   |
|                                                                                                                                                                                             | Total      | 55.889         | 152 |             |        |                   |
| a. Predictors: (Constant), I_EntrManagement_ComAge, Zscore: Entrepreneurial Orientation, Zscore: Age of the Company_Numerical, I_EntrOrientation_ComAge, Zscore: Entrepreneurial Management |            |                |     |             |        |                   |
| b. Dependent Variable: SME Performance                                                                                                                                                      |            |                |     |             |        |                   |

Source: SPSS Data Analysis

The proposed model is statistically significant as its sig value is less than 0.05. The next table shows the coefficient of the linear equation after taking into consideration the moderating effect.

**Table 25: Coefficient Model Summary**

| Model                                  |                                      | Unstandardized Coefficients |            | Standardized Coefficients | t       | Sig. |
|----------------------------------------|--------------------------------------|-----------------------------|------------|---------------------------|---------|------|
|                                        |                                      | B                           | Std. Error | Beta                      |         |      |
| 1                                      | (Constant)                           | 3.724                       | .030       |                           | 124.354 | .000 |
|                                        | Zscore: Entrepreneurial Orientation  | .081                        | .050       | .134                      | 1.641   | .103 |
|                                        | Zscore: Entrepreneurial Management   | .423                        | .050       | .697                      | 8.430   | .000 |
|                                        | Zscore: Age of the Company_Numerical | .002                        | .030       | .004                      | .081    | .936 |
|                                        | I_EntrOrientation_ComAge             | .001                        | .048       | .002                      | .025    | .980 |
|                                        | I_EntrManagement_ComAge              | -.007                       | .049       | -.012                     | -.149   | .882 |
| a. Dependent Variable: SME Performance |                                      |                             |            |                           |         |      |

Source: SPSS Data Analysis

The sig value for the intersection of the company age moderating variable with both of the Entrepreneurial Orientation and Entrepreneurial management is greater than 0.05 which is not significant so there is no impact of the company age moderating variable on the relationship of Entrepreneurial Orientation and Entrepreneurial management with the SMEs Performance.

#### 4.2.3.2 Company Size

The next table shows the model summary after including the moderating effect. This is calculated after standardizing both of the independent and moderating variables then creating an interaction variable after multiplying the standardized variables.

**Table 26: Regression Model Summary**

| Model                                                                                                                                                                                          | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------|-------------------|----------------------------|
| 1                                                                                                                                                                                              | .810 <sup>a</sup> | .657     | .645              | .361218785442258           |
| a. Predictors: (Constant), I_EntrManagement_ComSize, Zscore: Entrepreneurial Orientation, Zscore: Number of Employees_Numerical, I_EntrOrientation_ComSize, Zscore: Entrepreneurial Management |                   |          |                   |                            |

Source: SPSS Data Analysis

The proposed model has R square of 65.7%.

**Table 27: ANOVA Model Summary**

| Model                                                                                                                                                                                          |            | Sum of Squares | df  | Mean Square | F      | Sig.              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|-----|-------------|--------|-------------------|
| 1                                                                                                                                                                                              | Regression | 36.708         | 5   | 7.342       | 56.267 | .000 <sup>a</sup> |
|                                                                                                                                                                                                | Residual   | 19.180         | 147 | .130        |        |                   |
|                                                                                                                                                                                                | Total      | 55.889         | 152 |             |        |                   |
| a. Predictors: (Constant), I_EntrManagement_ComSize, Zscore: Entrepreneurial Orientation, Zscore: Number of Employees_Numerical, I_EntrOrientation_ComSize, Zscore: Entrepreneurial Management |            |                |     |             |        |                   |
| b. Dependent Variable: SME Performance                                                                                                                                                         |            |                |     |             |        |                   |

Source: SPSS Data Analysis

The proposed model is statistically significant as its sig value is less than 0.05. The next table shows the coefficient of the linear equation after taking into consideration the moderating effect.

**Table 28: Coefficient Model Summary**

| Model |                                     | Unstandardized Coefficients |            | Standardized Coefficients | t       | Sig. |
|-------|-------------------------------------|-----------------------------|------------|---------------------------|---------|------|
|       |                                     | B                           | Std. Error | Beta                      |         |      |
| 1     | (Constant)                          | 3.724                       | .030       |                           | 123.836 | .000 |
|       | Zscore: Entrepreneurial Orientation | .082                        | .050       | .136                      | 1.650   | .101 |

|                                        |                                       |       |      |       |       |      |
|----------------------------------------|---------------------------------------|-------|------|-------|-------|------|
|                                        | Zscore: Entrepreneurial Management    | .424  | .050 | .700  | 8.464 | .000 |
|                                        | Zscore: Number of Employees Numerical | .004  | .030 | .006  | .124  | .902 |
|                                        | I_EntrOrientation_ComSize             | -.020 | .049 | -.032 | -.398 | .691 |
|                                        | I_EntrManagement_ComSize              | .010  | .049 | .016  | .199  | .843 |
| a. Dependent Variable: SME Performance |                                       |       |      |       |       |      |

*Source: SPSS Data Analysis*

The sig value for the intersection of the company size moderating variable with both of the Entrepreneurial Orientation and Entrepreneurial management is greater than 0.05 which is not significant so there is no impact of the company size moderating variable on the relationship of Entrepreneurial Orientation and Entrepreneurial management with the SMEs' Performance

### **4.3 Discussion of The Findings**

The researcher questions the relationship between Corporate Entrepreneurship and the performance of SMEs in Bahrain. The research aims to identify the effect of Entrepreneurial Orientation and Management on performance of the participated SMEs. The data were collected from SMEs from the three major categories identified by the ministry of Industry and Commerce. The model used in this research, aims to study the relationship between the dimensions of Entrepreneurial Orientation and constructs of Entrepreneurial Management on SMEs' performance in Bahrain.

The descriptive analysis shows that all variables within the independent and independent constructs are reliable according to Cronbach's Alpha Coefficient. Also, the researcher used Kaiser-Meyer-Olkin (KMO) test to check the adequacy of the collected data, which revealed that each group of variable achieves higher loading that results in a high level of construct validity. Therefore, the data collected for the purpose of this research have proven to be reliable and with high level of validity.

This section presents an analytical review of the research findings, based on the descriptive and inferential analysis of the gathered data.

#### **4.3.1 Entrepreneurial Orientation Dimensions**

The researcher conducted both correlation and regression analysis. Each examines Entrepreneurial Orientation dimensions using different tests, which reflect its relationship with SMEs' performance. In this section the researcher discusses the data analysis results and hypothesis testing with the literature.

The correlation analysis shows that relationship between all dimensions of Entrepreneurial Orientation and SME Performance is significant. Thus, we can reject the null hypotheses and accept that there is a positive relationship between the level of Entrepreneurial Orientation the company has and its Performance. This finding is consistent with the previous literature that have found that status of Entrepreneurial Orientation dimensions affects performance of SMEs positively (Fis & Cetindamar, 2009); (Kaya N. ,2015) ; (Lekmat & Selvarajah 2008); (Lee et al, 2009); (Bulut and Yilmaz, 2008)

On the other hand, the regression analysis shows different results. As the data analysis shows that only two of the four dimensions have significant relationship with SMEs performance, which are: Innovation and autonomy. While, we have to accept the null hypothesis for both Pro-activeness and risk management that both factors or dimensions have no relationship with SMEs' performance.

#### **4.3.2 Entrepreneurial Management Constructs**

The researcher conducted both correlation and regression analysis. Each examines Entrepreneurial Management constructs using different tests, which reflect its relationship with SMEs' performance. In this section the researcher discusses the data analysis results and hypothesis testing with the literature.

The correlation analysis shows that relationship between all the three constructs of Entrepreneurial Management and SME Performance is significant. Thus, we can reject the null hypotheses and accept that there is a positive relationship between the level of Entrepreneurial Management the company has and its Performance. This finding is consistent with the pervious literature that have found that status of corporate entrepreneurship dimensions affects performance of SMEs positively.

On the other hand, the regression analysis shows different results. Both of Management Structure and Culture and Reward Philosophy is significant as their sig value is less than 0.05. Strategic & Resource Orientation is not significant as their sig value is greater than 0.05.

The researcher can reject the null hypothesis for the relationship between Management Structure and Culture and SME performance in addition to the relationship between Reward Philosophy and SME performance. The researcher fails to reject the null hypotheses for the relationship between Strategic & Resource Orientation and SME performance. These results are partially in coherent with Moghaddam, Khorakian, and Maharati (2015) and Pratono and Mahmood (2014).

#### **4.3.3 Moderating Variables**

In the theoretical framework researched, there are four moderating variables: company age, company size, government regulations and support. Both government regulation and

support are considered as a constant, since the research is studying SMEs in Bahrain where the regulation and support available are considered equal for all SMEs involved in the study.

The researcher uses two moderating variables; company age and company size. The researcher proposed an impact on both moderating variables on the relationship between Entrepreneurial Orientation and SME performance in addition to the relationship between Entrepreneurial management and SME performance. The researcher uses linear regression in the moderating analysis.

The analysis shows that the company size and age have no impact on the relationship of Entrepreneurial Orientation and Entrepreneurial management with the SMEs' Performance. which incoherent with the pervious literature that state that the older and smaller in size the company, the better the performance of the company

## **CHAPTER 5: CONCLUSION AND RECOMMENDATIONS**

This chapter concludes the research study. It starts with the introduction that summaries the research problem, objectives, methodology, frameworks, and the main theories behind the theoretical framework of the research. Then, it outlines the main findings of the research and recommendation. Finally, the chapter ends with the research limitation and recommendation for future studies.

### **5.1 Introduction**

The purpose of this study is assessing the relationship between Corporate Entrepreneurship and Performance of Bahraini SMEs. With the intent to develop a framework for proper application of corporate Entrepreneurship in SMEs. As SMEs account for about 30% of the Bahraini economy with more than 83,000 enterprises registered in the Kingdom (MIOC,2019).

The research objective is to assess the impact of Corporate Entrepreneurship on Organizational Performance of SMEs in Bahrain. Thus, a conceptual framework has been developed based on the previous literature. The conceptual framework is based on the adapted model of Moghaddama, Khorakianb, & Yaghoob (2015). The model used Julie M. Fox original model developed in 2005, which have a full view of Corporate Entrepreneurship and performance indicators to study Organizational Entrepreneurship and the organizational Performance linkage.

The research population consisted of 300 SMEs, 100 from each category (Micro, Small, and Medium). Out of the targeted sample approached, 153 responses received, representing response rate of 51%. Therefore, the sample size of this study is 153 employees.

### **5.2 Conclusion**

Corporate Entrepreneurship is considered as the development of new ideas within an organization, consistently seeking new opportunity that can be used to create value,

improve competitive position and increase profitability. The conceptual model in this research, based on the literature in this field, propose the notion that Corporate Entrepreneurship consist of two constructs, Entrepreneurship Orientation and Entrepreneurship Management. And these two constructs have an impact on the performance of SMEs in Bahrain.

The first construct, Entrepreneurship Orientation is the desire of the company “SME” to take advantage of new opportunities and to assume the responsibility to produce innovative and effective change, and it consist of five dimensions. The proposed model studied the effect of only four dimensions on the performance of SMEs in Bahrain, these dimensions are innovation, Risk-taking, Pro-activeness, and Autonomy.

The researched hypothesis that Entrepreneurship Orientation and its four constructs have a significant positive relationship with SMEs performance. And the correlation analysis revealed that the relationship between Entrepreneurial Orientation and its constructs “Innovation, Risk-taking, Pro-activeness, and Autonomy” and SME Performance is significant. Whereas, the regression analysis shows a different result. as per the regression analysis, only Innovation and autonomy have a significant relationship with SMEs performance. And when measuring the impact of Entrepreneurship Orientation as a whole, it does not have a significant relationship with SMEs’ performance.

The second construct, Entrepreneurship Management, which is firm’s strategic decisions and operating management philosophies that can be described as proactive, opportunity-driven, and action-oriented. Have a significant positive relationship with SMEs performance, as per both regression and correlation analysis. But the impact of its dimensions “Strategic & Resource Orientation, Management Structure and Culture and Reward Philosophy” on SMEs Performance differ when comparing regression and correlation analysis results. as the analysis shows, the three dimensions have a positive significant relationship with SME performance when correlation analysis was applied. While, only Management Structure and Culture and Reward Philosophy dimension have an impact on SME performance, when regression analysis was applied. The researcher believes that this result is valid, as when the management of any organization adopt,

believes in and encourages entrepreneurship behaviors within the organization it will defiantly be reflected positively on its performance.

Both moderating variables, company size and age have no significant impact on the relationship between Corporate Entrepreneurship and SMEs Performance.

These results indicate, that the size and age of the SME company has no significant impact on its performance, as long as it has a Entrepreneurship Management with a focus on creating a structure and adopting a culture of Entrepreneurship “proactive, opportunity-driven, and action-oriented” supported by a strong Reward Philosophy. Overall, there is a positive relationship between Corporate Entrepreneurship and SMEs overall performance, as it will allow employees to have the autonomy and will defiantly be innovative, which will lead to an enhanced company performance.

### **5.3 Recommendation**

After in-depth analysis of the data and the findings of the research study, the below recommendations are presented by the researcher.

#### **5.3.1 Recommendation for SME**

Based on the research results, and the literature at hand, SMEs needs to be equipped with the correct combination of culture and structure that facilitate employee’s autonomy along with a reward system that rewards the innovative and risk-taking individuals within the company. Serious consideration of each individual abilities within the company, to allow innovative employee to have the level of autonomy needed for increasing the performance. This research shows that Management within the organization is the key for better performance.

#### **5.3.2 Recommendation for Educational Institutions**

Considering the high correlation between Corporate Entrepreneurship and performance, educational institutions are got to offer courses to SMEs’ owners, managers, and employees on the subject. Offering the training necessary to practice Corporate Entrepreneurship.

#### **5.4 Future Work**

Despite the research limitation, the subject of Corporate Entrepreneurship is broad and extensive, and the researcher believes in its importance to the current literature, especially in MENA region. As the limitation mentioned can be viewed as opportunity for future research studies such as Examining the Form of Corporate Entrepreneurship practiced in Bahraini SMEs, Extending the number of participating SMEs may yield different result as the data collection process was done in a time were most of SMEs are forced to close due to the COVID-19 pandemic. Also, a more extensive research to Study Corporate Entrepreneurship and Organizational Performance of SME's In GCC countries.

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## Appendix A

### Corporate Entrepreneurship and Organizational Performance of SME's In Bahrain

Given that your esteemed company is one of the leading SME's we would appreciate your participation in this study. We would like to assure you that we undertake strict confidentiality clauses at all stages of data collection and all information will be securely stored. This survey will be kept anonymous and all individual responses will remain confidential. Participating in this study is voluntary and will contribute to a better understanding of the impact of corporate Entrepreneurship on organizations performance.

| <b>Section 1: demographic information</b>        |                                                                                                                                    |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Position / Designation of the interviewee</b> | <input type="checkbox"/> Owner/CEO<br><input type="checkbox"/> Middle Management<br><input type="checkbox"/> Employee              |
| <b>Gender</b>                                    | <input type="checkbox"/> Male<br><input type="checkbox"/> Female                                                                   |
| <b>Age of the Company</b>                        | <input type="checkbox"/> 1-5 years<br><input type="checkbox"/> 6-10 years<br><input type="checkbox"/> Above 10 years               |
| <b>Number of company employees</b>               | <input type="checkbox"/> Up to 5 employees<br><input type="checkbox"/> 6-50 employees<br><input type="checkbox"/> 51-100 employees |

| <b>Section 2</b>                                                                                                                                                    |                                                                                            |                   |          |         |       |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------|----------|---------|-------|----------------|
| Please respond honestly to the following statements by circling the numbers between 1 and 5. Where 1 represent strongly disagree and 5 represent strongly disagree. |                                                                                            |                   |          |         |       |                |
| No                                                                                                                                                                  | Statement                                                                                  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| 1.                                                                                                                                                                  | The company aims to be the first to introduce new product / services to the market.        | 1                 | 2        | 3       | 4     | 5              |
| 2.                                                                                                                                                                  | The changes in our product/services throughout the years can be described as dramatic.     | 1                 | 2        | 3       | 4     | 5              |
| 3.                                                                                                                                                                  | The process used for production/ service delivery have been optimized over the past years. | 1                 | 2        | 3       | 4     | 5              |
| 4.                                                                                                                                                                  | We evaluate our product/services periodically.                                             | 1                 | 2        | 3       | 4     | 5              |
| 5.                                                                                                                                                                  | Our company always pursuit new market opportunities.                                       | 1                 | 2        | 3       | 4     | 5              |

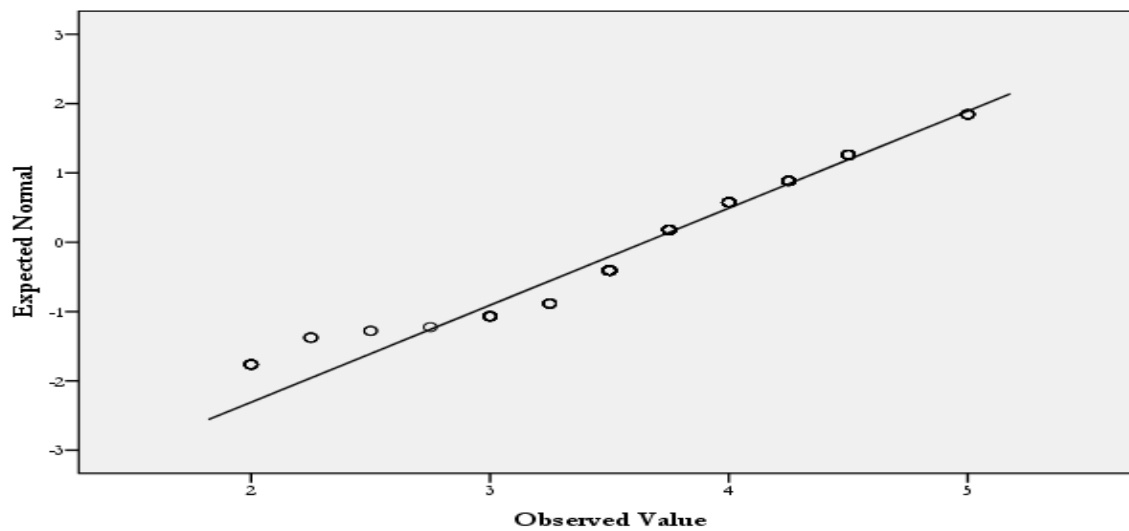
|     |                                                                                                                                                                                                                      |   |   |   |   |   |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 6.  | Our company initiates action that other SMEs has to respond to.                                                                                                                                                      | 1 | 2 | 3 | 4 | 5 |
| 7.  | Normally, we deal with the market problems as they occur.                                                                                                                                                            | 1 | 2 | 3 | 4 | 5 |
| 8.  | We have installed the necessary procedure to predict problems in advance.                                                                                                                                            | 1 | 2 | 3 | 4 | 5 |
| 9.  | We are eager to utilize the technologies available to improve our process, and products/services.                                                                                                                    | 1 | 2 | 3 | 4 | 5 |
| 10. | We are not afraid to invest money in risky projects.                                                                                                                                                                 | 1 | 2 | 3 | 4 | 5 |
| 11. | We have a strong tendency to pursue high-risk projects (with chances of very high returns).                                                                                                                          | 1 | 2 | 3 | 4 | 5 |
| 12. | We have active, real-time processes to closely monitor our rivals.                                                                                                                                                   | 1 | 2 | 3 | 4 | 5 |
| 13. | We often do activities that are directed against the competition.                                                                                                                                                    | 1 | 2 | 3 | 4 | 5 |
| 14. | We respond to competitors' threats or possible attacks, by any means possible (reduce prices, increased marketing, increased product quality or improving production capacity) to ensure our position in the market. | 1 | 2 | 3 | 4 | 5 |
| 15. | Employees have our support to act autonomously to peruse opportunities or react to a possible threat.                                                                                                                | 1 | 2 | 3 | 4 | 5 |
| 16. | Employees continuously asked to refer to us regarding any decision they may act on.                                                                                                                                  | 1 | 2 | 3 | 4 | 5 |
| 17. | Employees are always welcome to present new ideas to improve tasks, even when it does not belong to their direct job task.                                                                                           | 1 | 2 | 3 | 4 | 5 |
| 18. | Employee initiatives and input play a major role in identifying and selecting the entrepreneurial opportunities of our company.                                                                                      | 1 | 2 | 3 | 4 | 5 |
| 19. | The company allows employees to react individually to the requirements of unexpected situations.                                                                                                                     | 1 | 2 | 3 | 4 | 5 |

| Section3                                                                                                                                                               |                                                                                                                                              |                      |          |         |       |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------|---------|-------|-------------------|
| Please respond honestly to the following statements by circling the numbers between 1 and 5.<br>Where 1 represent strongly disagree and 5 represent strongly disagree. |                                                                                                                                              |                      |          |         |       |                   |
| No                                                                                                                                                                     | Statement                                                                                                                                    | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |
| 1.                                                                                                                                                                     | We are opportunity driven. We are not constrained by the resources at (or not at) hand.                                                      | 1                    | 2        | 3       | 4     | 5                 |
| 2.                                                                                                                                                                     | Our priority is to pursue opportunities we perceive as valuable, and then acquire the resources to exploit them.                             | 1                    | 2        | 3       | 4     | 5                 |
| 3.                                                                                                                                                                     | We prefer owning and controlling the resources not just the ability to use them.                                                             | 1                    | 2        | 3       | 4     | 5                 |
| 4.                                                                                                                                                                     | The company has a strong emphasis on controlling the funds and operations while following formal processes and procedures.                   | 1                    | 2        | 3       | 4     | 5                 |
| 5.                                                                                                                                                                     | The company strongly agrees with adhering to the rules of management principles and industry norms.                                          | 1                    | 2        | 3       | 4     | 5                 |
| 6.                                                                                                                                                                     | We are allowed to use a wide range of management styles, acting based on situations and our personality, and not only our job description.   | 1                    | 2        | 3       | 4     | 5                 |
| 7.                                                                                                                                                                     | We have a law chain of command, which allows us to be a fast decision-making company.                                                        | 1                    | 2        | 3       | 4     | 5                 |
| 8.                                                                                                                                                                     | Mangers from different departments get together periodically to discuss new ventures or ideas.                                               | 1                    | 2        | 3       | 4     | 5                 |
| 9.                                                                                                                                                                     | The social interaction and the communication of ideas are actively facilitated in our company.                                               | 1                    | 2        | 3       | 4     | 5                 |
| 10.                                                                                                                                                                    | Employees are encouraged to share constructive criticism.                                                                                    | 1                    | 2        | 3       | 4     | 5                 |
| 11.                                                                                                                                                                    | The company has a monitoring system (systematic or humanoid) that seeks feedback from stakeholders to detect shifts in needs or performance. | 1                    | 2        | 3       | 4     | 5                 |
| 12.                                                                                                                                                                    | There is no room for employee mistakes; all employees must adhere to their job duties only.                                                  | 1                    | 2        | 3       | 4     | 5                 |
| 13.                                                                                                                                                                    | Compensations is based on the added value each employee brings to the company.                                                               | 1                    | 2        | 3       | 4     | 5                 |
| 14.                                                                                                                                                                    | We have created a compensation system where employees can benefit from the increased value of the company.                                   | 1                    | 2        | 3       | 4     | 5                 |
| 15.                                                                                                                                                                    | Employees' position is based on the benefit they add rather than the amount of responsibility they carry.                                    | 1                    | 2        | 3       | 4     | 5                 |

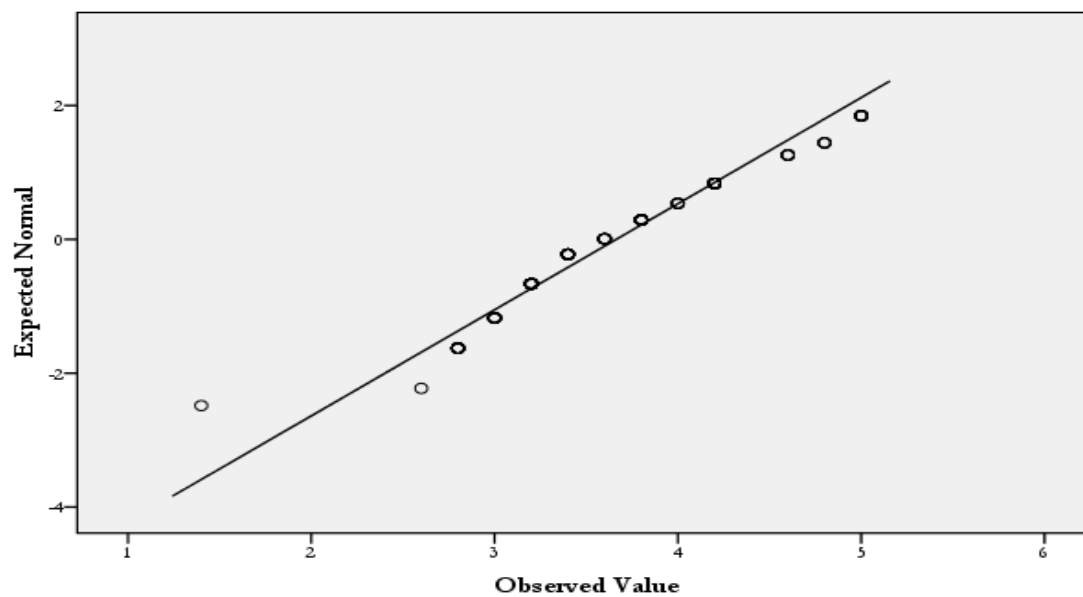
| <b>Section 4</b>                                                                                                                                                       |                                                                                                                                                                         |                      |          |         |       |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------|---------|-------|-------------------|
| Please respond honestly to the following statements by circling the numbers between 1 and 5.<br>Where 1 represent strongly disagree and 5 represent strongly disagree. |                                                                                                                                                                         |                      |          |         |       |                   |
| No                                                                                                                                                                     | Statement                                                                                                                                                               | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |
| 1.                                                                                                                                                                     | The ability of the company to attract and keep best and most talented employees.                                                                                        | 1                    | 2        | 3       | 4     | 5                 |
| 2.                                                                                                                                                                     | The ability of the company to provide quality products and services on timely and continuous basis.                                                                     | 1                    | 2        | 3       | 4     | 5                 |
| 3.                                                                                                                                                                     | The ability of the company in improving the internal processes and procedures to increase efficiency and effectiveness of the workflow.                                 | 1                    | 2        | 3       | 4     | 5                 |
| 4.                                                                                                                                                                     | The ability of the company to process internal and external information, create knowledge and disseminate it within the company, to aid in the decision-making process. | 1                    | 2        | 3       | 4     | 5                 |
| 5.                                                                                                                                                                     | The ability of the company to respond effectively and efficiently to global trends and market changes.                                                                  | 1                    | 2        | 3       | 4     | 5                 |
| 6.                                                                                                                                                                     | The ability of the company to meet its targets and achieve its annual objectives.                                                                                       | 1                    | 2        | 3       | 4     | 5                 |

## Appendix B

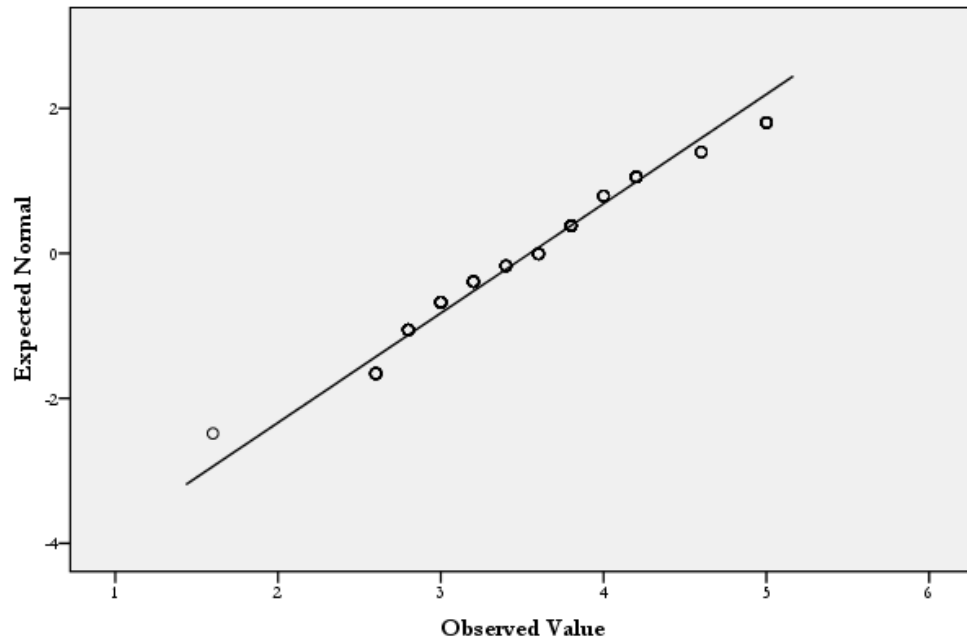
Normal Q-Q Plot of Innovation



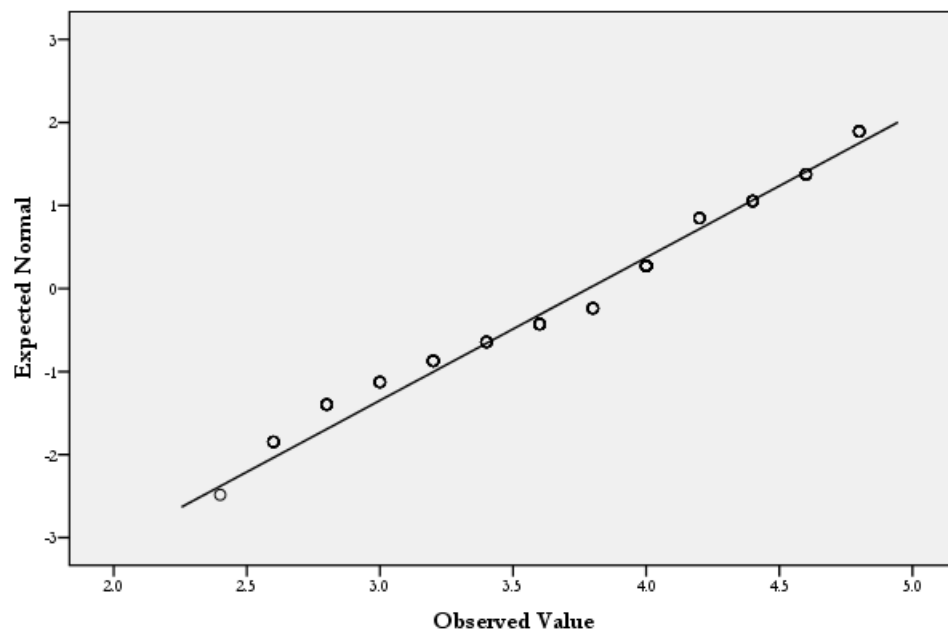
Normal Q-Q Plot of Pro-activeness



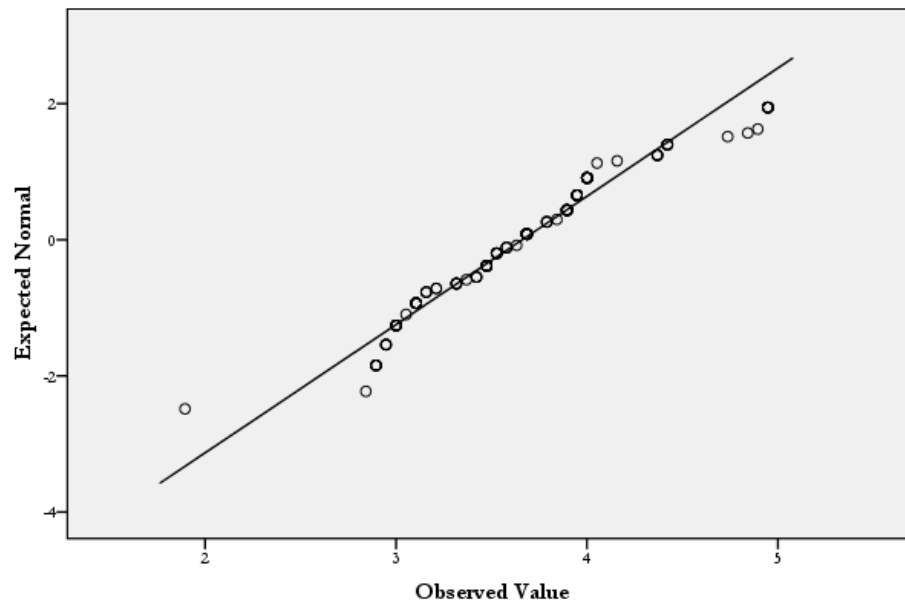
Normal Q-Q Plot of Risk Management



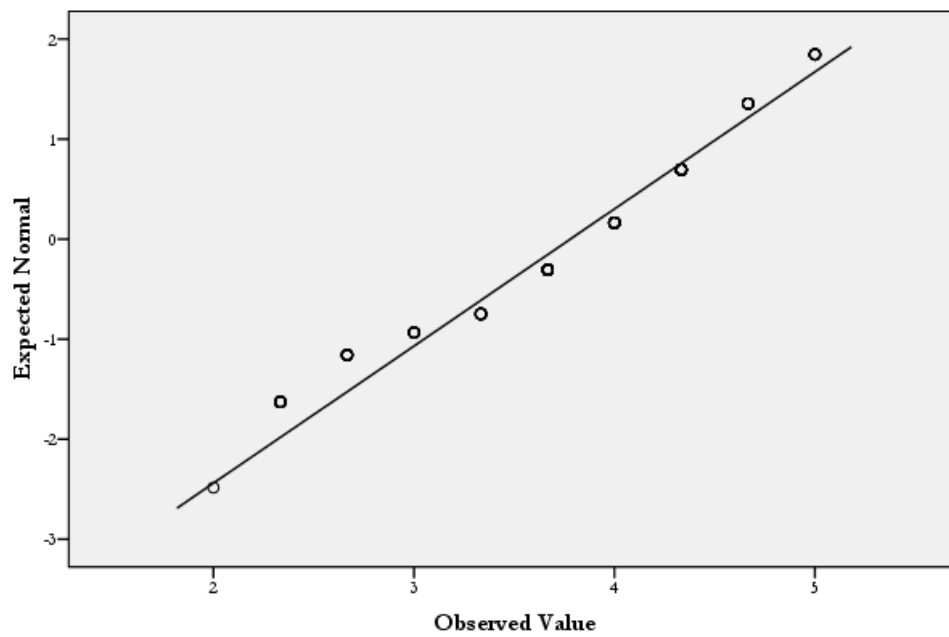
Normal Q-Q Plot of Autonomy



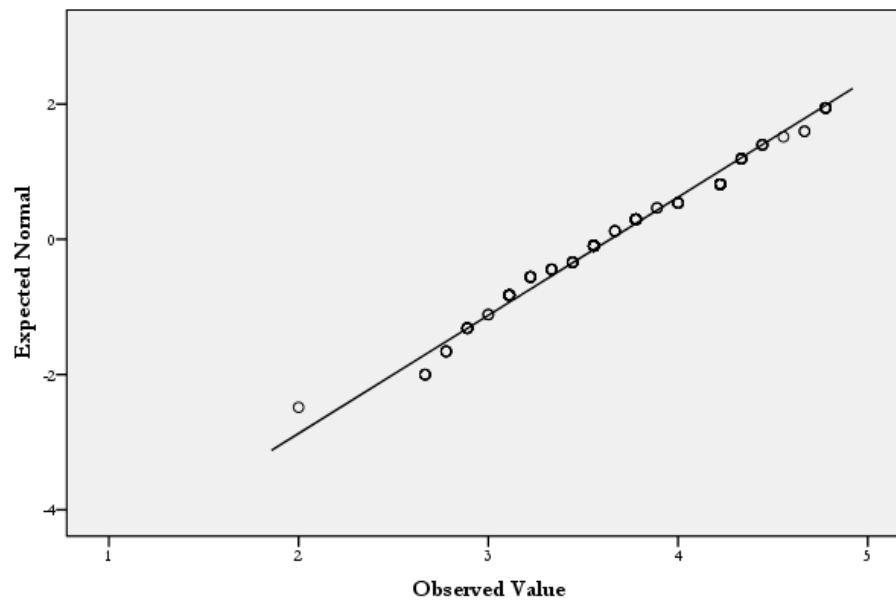
Normal Q-Q Plot of Entrepreneurial Orientation



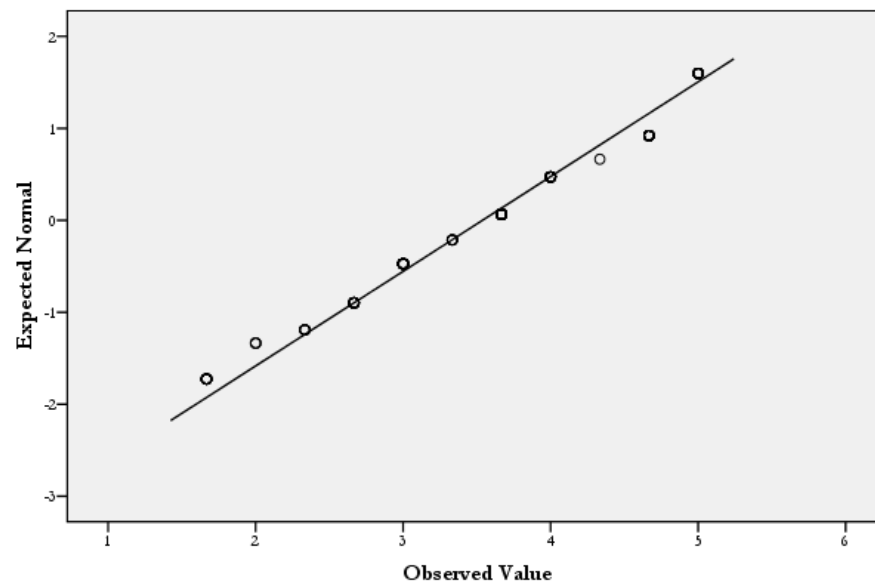
Normal Q-Q Plot of Strategic & Resource Orientation



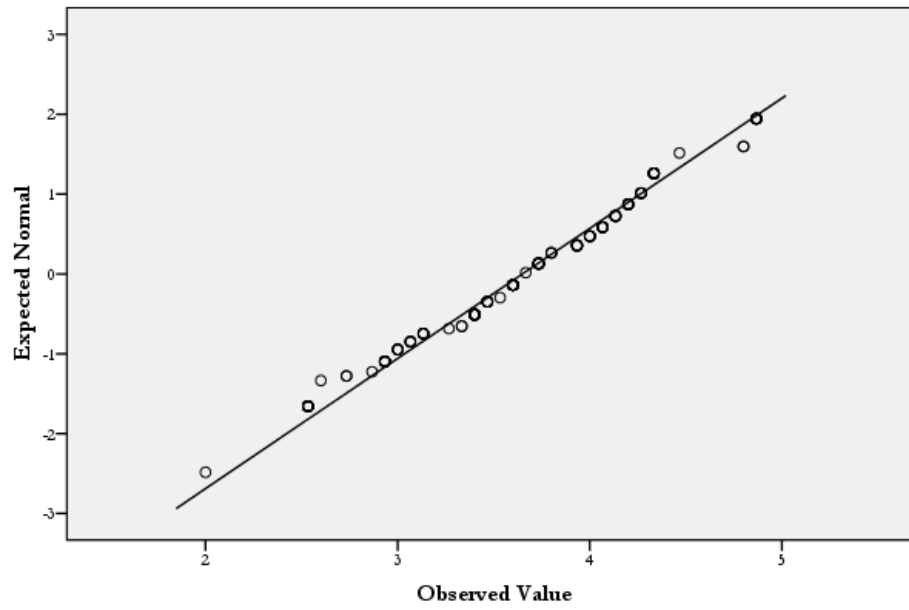
Normal Q-Q Plot of Management Structure and Culture



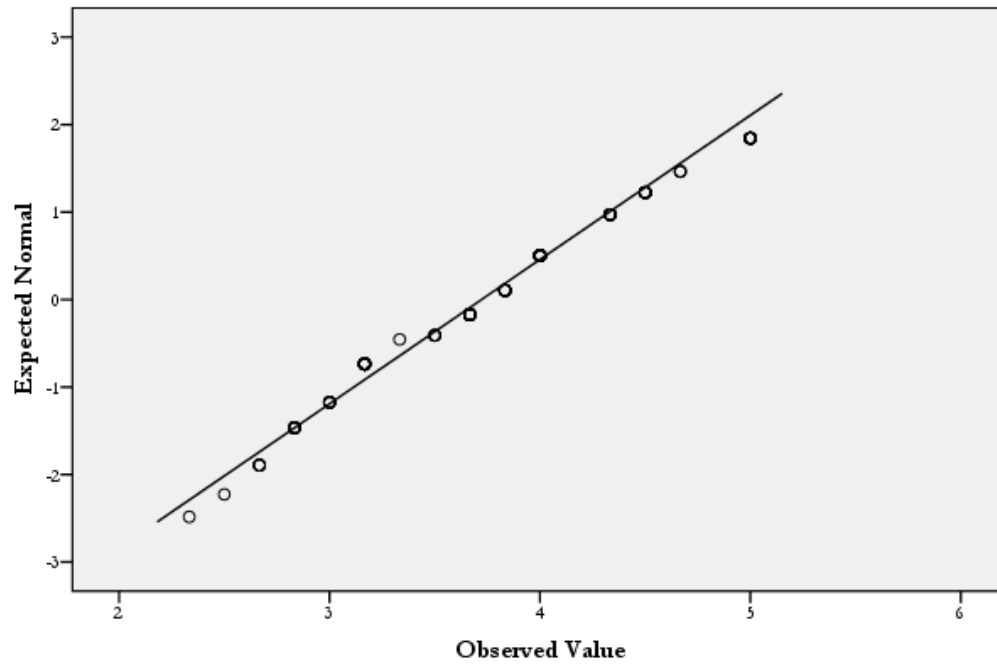
Normal Q-Q Plot of Reward Philosophy



Normal Q-Q Plot of Entrepreneurial Management



Normal Q-Q Plot of SME Performance



## الملخص

هناك عدة أدلة على أن الشركات الصغيرة والمتوسطة التي تمارس وتتبنى قيادة الأعمال المؤسسية يمكنها أن تتفاعل بسرعة وتتوقع التغييرات وتحقق أداءً أفضل. في البحرين، تشكل الشركات الصغيرة والمتوسطة 99 ٪ من جميع المؤسسات التجارية المسجلة في البحرين والتي تمثل حوالي 30 ٪ من الاقتصاد البحريني.

على الرغم من أن المملكة لديها مبادرات جارية لدعم قيادة الأعمال، إلا أن هناك نقصاً في الأدلة المتعلقة بتأثير قيادة الشركات على الأداء التنظيمي للشركات الصغيرة والمتوسطة في البحرين. لذلك، فإن الهدف الرئيسي للبحث هو استكشاف العلاقة بين قيادة الأعمال على مستوى المؤسسة وأداء المؤسسات البحرينية الصغيرة والمتوسطة. بقصد تطوير إطار عمل للتطبيق المناسب للريادة المؤسسية في المؤسسات الصغيرة والمتوسطة.

استخدم الباحث نموذجاً من الأدبيات السابقة لدراسة العلاقة بين الريادة المؤسسية والأداء التنظيمي للشركات الصغيرة والمتوسطة وصياغة فرضيات ليتم اختبارها. تم اختيار نهج البحث الكمي لتحقيق أهداف البحث والبيانات التي تم جمعها عبر الاستبيان عبر الإنترنت. تم استخدام أسلوب أخذ العينات الهادف غير الاحتمالي على جولتين. كان حجم العينة 153، وهو ما يمثل معدل استجابة 51٪. كشف اختبار ألفا كرونباخ أن جميع المتغيرات المستقلة والتابعة تتمتع بموثوقية عالية، وبالتالي فإن الاستبيان يحتوي على تناسق داخلي مرتفع. تم تطبيق اختبار Kaiser-Meyer-Olkin (KMO) كأداة لتحليل العوامل، وأظهر أن المتغيرات تتمتع بمستوى عالٍ من صلاحية الإنشاء.

وانتهى البحث إلى أن النتيجة كانت متوافقة مع الأدبيات، ودلت على أن حجم الشركة الصغيرة والمتوسطة وعمرها ليس لهما تأثير كبير على أدائها، طالما أن لديها إدارة قيادة الأعمال مع التركيز على إنشاء هيكل وتبني ثقافة قيادة الأعمال مدعومة بفلسفة المكافأة القوية. بشكل عام، هناك علاقة إيجابية بين الريادة المؤسسية والأداء العام للشركات الصغيرة والمتوسطة، حيث ستسمح للموظفين بالحصول على الاستقلالية وحرية الابتكار، مما سيؤدي إلى تحسين أداء الشركة. يوصي البحث الشركات الصغيرة والمتوسطة بفحص ثقافتها وهيكلها، وتسهيل استقلالية الموظف، وإنشاء نظام مجزي.

جامعة البحرين

قسم الإدارة والتسويق



كلية إدارة الأعمال

# الريادة المؤسسية وأداء المؤسسات الصغيرة والمتوسطة في البحرين

أطروحة مقدمة كجزء من متطلبات الحصول على ماجستير في إدارة الأعمال

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