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Entrepreneurial Orientation Impact on Micro and Small Enterprises in Egypt

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Abstract

The aim of the proposed study is to test and analyze the impact of Entrepreneurial Orientation (EO) on micro and small enterprises' growth in Egypt, measured by three growth indicators: sales revenue, profit margin, and employment. The growth rates are measured over four periods (past three years, past year, next year, and next three years) to examine the historical and potential impact of EO on growth rates.

EO is defined as the process which organizations use to renew themselves and their markets by innovativeness, proactiveness, and risk-taking (Miller, 1983). While EO is considered one of the crucial factors in determining firms' performance, it has not been thoroughly explored within the Egyptian context. In Egypt, only 50% of MSMEs utilize the financial services offered by the government. We hypothesize that this is due to the lack of EO affecting the management mindset, which has a growth-hindering impact on the financial structure of the firm. Examining EO in Egypt is crucial given the increasingly important role of entrepreneurship in the country's economic development (El-Said,2014).

Keywords: Entrepreneurial Orientation, Egypt, Firm Growth, MSMEs.

Paper Outline

List of Tables

List of Figures

1. Introduction

The interest in understanding the factors that determine high- versus low-growth businesses has exponentially increased over the past two decades. The success of the Micro, Small, and Medium Enterprises (MSMEs) has been proven to play a critical role in the economic growth, given its role in creating jobs, fostering private ownership, responding to systematic shocks more rapidly than large enterprises, and promoting innovation and entrepreneurship (EBRD 1995; Wells et al., 2003). Governments have therefore taken various initiatives such as investing in innovation, talent, and global connectedness to foster MSMEs growth by assuring the continuity and productivity of these firms (Locke 2006). It is crucial to understand the determinants of high growth rates and how to increase the number of MSMEs to help the economy (Barbero, et al., 2011).

Although their importance in economic growth is well established, understanding the factors that contribute to the growth of MSMEs is still subject to study and debate. Few firms are maintaining their high growth rates for a long time. Hence, many studies have been conducted to examine these factors in different countries with different circumstances to understand what affects the growth of these firms. Studying those factors is helpful for both sides: the entrepreneurs -to know what will help their business grow faster- and the government policymakers -to increase their knowledge about which public policies can be most effective in developing business and enhancing employment rates. It will be easier for a government to target the firms with growth potential and help them to survive and grow (Resende, Cardoso, Façanha, 2015). There is extensive literature examining the factors that affect SMEs' growth. Previous research has divided these factors into two categories as explained below:

- Internal Factors: these include entrepreneurial orientation of the management, age of the firm, size of the firm, and organizational structure.
- External Factors: these include governance structure and support, industry-related factors, geographical location, and environmental characteristics (dynamics, heterogeneity, hostility, and munificence).

In the 1980s, entrepreneurial orientation (EO) has proven to be a major construct in strategic management and entrepreneurship research. EO was defined by Covin et al. (2006) as strategic build-up whose conceptual domain includes certain firm-level results and management-related preferences, beliefs, and behaviors as expressed amongst a firm's top-level managers. EO is measured by three aspects: innovativeness, proactiveness, and risk-taking. Many previous studies have found a positive relationship between EO and firm performance (Jantunenet al., 2005; Wiklund and Shepherd, 2005; Madsen, 2007). However, other studies did not confirm the existence of this relationship (Smart and Conant, 1994). The reason behind reaching different findings is that the measure that is used to assess the firm performance has been a combination of profitability and growth. However, there are some studies that have only explored the relationship between EO and firm growth. These studies confirmed the existence of a positive relationship between EO and firm's growth rate (Covin et al., 2006; Moreno and Casillas, 2008).

Given the important role of MSMEs in the economy, it is crucial to investigate the relationship between the strategic characteristics and the firm growth. The main focus of this study is to explore whether a relationship exists between entrepreneurial orientation factors and firm growth rates in Egypt, which has not received enough attention, especially after the 2011 revolution which has changed the entrepreneurial landscape of the country (El-Said, 2014). The Egyptian government has been trying to assist MSMEs by offering financial services.

Surprisingly, only 50% of the SMEs are utilizing these services. This was found to be mainly due to the lack of EO which affects the management mindset and has a growth-hindering effect on the financial structure of the firm. Hence, it is crucial to understand how EO can affect growth through the financial structure (El-Said, 2013).

The structure of this paper is as follows: section 1 will take the reader through the literature review done about MSMEs and especially EO and its relationship with firm performance. Additionally, it will discuss important facts about the MSMEs in Egypt and the obstacles they face. The second section will discuss the methodology of our study, hypotheses, and research phases. In section three, we will discuss the results of our study. In the last section, we will state the conclusion, both the academic and managerial contributions of our research, the limitations, and the agenda for future research.

2. Literature Review

In this section, previous research done on the topic of MSMEs growth determinants will be discussed in detail, especially in our focus area which is entrepreneurial orientation impact on MSMEs performance.

2.1 Internal factors affecting SMEs growth

The main theory underlying the entrepreneurial finance empirical studies is the Resource-Based View of the Firm. Resource-based theory is identifying the resources that are more important for the firm to sustain a competitive advantage in the market. Hence, management competence is critical for the resource-based view to identify, understand, and classify the core competencies of the firm. Additionally, the management must invest in organizational learning to develop and maintain the key resources and competencies (Barney, 1991). Using this view, the

management can work on the main internal factors that affect MSMEs' growth. The internal factors affecting MSMEs relate to all the factors within the organization including business processes, vision, clear strategy, innovation, organizational learning, risk-taking, age, organizational structure, technical capacities, management capabilities, and entrepreneurial judgment.

2.1.1 Entrepreneurial Orientation

Previous literature had always related entrepreneurship with the product-market and technological innovativeness, risk-taking, and proactiveness. An entrepreneurial business is a business that takes risky projects in the hope to a get high return, comes up frequently with innovative ideas, and engages in product-market innovation. Such business characteristics are associated with better firm performance. On the other hand, a non-entrepreneurial business is the one that avoids competitive clashes and high-risk projects to guarantee its level of returns, and imitates the moves of its competitors (Miller, 1983). Other literature had related determinants of entrepreneurship to personality factors and psychodynamic characteristics of the chief executive. EO is an important factor in the strategy-making process; it represents practices that provide the basis for entrepreneurial decisions. The strategy-making process is an organization wide phenomenon that integrates planning, analysis, decision making, and many aspects of the organizational culture, value system, and mission. Hence, EO can be viewed as the entrepreneurial strategy-making process that owners or top managers of the firm utilize to enact the business organizational purpose and vision and create their competitive edge (Rauch, et al, 2009).

EO was first mentioned and studied in the work of Miller (1983) and Covin and Slevin (1989). Since that time EO became an essential aspect in the entrepreneurship and strategic

management literature by defining what it means for firms to exhibit an entrepreneurial strategic posture. EO is defined as the process which organizations follow to renew themselves and their markets by pioneering, innovation, and risk-taking (Miller, 1983). EO defines the strategy-making and the decision-making processes of the firm. Furthermore, it defines the organizational phenomenon that reflects the managerial capabilities which a firm uses to be more proactive and come up with aggressive initiatives to change the competitive sense to its own advantage. Defender firms are the ones with a defensive orientation when it comes to risk-taking, innovativeness, opportunity seeking, and proactivity. On the other hand, conservative firms are basically followers of the market (Avlonitis, Salavou, 2007). According to Miller, EO is needed for the firm to survive and grow (Miller; 1983). There has been a strong focus on the effect of the EO on firm growth. It was found to have a direct effect on firm profitability and market share (Lee et al., 2015).

Some researchers had found a direct relationship between EO and firm performance while others did not confirm the existence of such a direct relationship. Rather they found that it is dependent on the fit between EO and other factors such as environment, structure, and strategy. Other literature had found that EO plays a moderator role; the relationship between knowledge-based resources and business performance was stronger among businesses that had higher EO (Al Mamun et al., 2017).

2.1.1.1 Innovativeness

Innovativeness has an important role in the business performance and is an important factor that facilitates growth, offers new products with high-profit potential, and improves the overall market value of the business (Cho and Pucik, 2005; Kuratko, 2009; Wiklund et al., 2009).

It is defined as the willingness to engage in creative and experimental projects to introduce new products/services and technological leadership through R&D in new processes.

2.1.1.2 Proactiveness

Proactiveness is always looking forward to the future and planning with an opportunity-seeking, forward-looking perspective by introducing new products and services ahead of the competitors and acting in anticipation of future demand. Proactive firms always put themselves in an anticipation mode to adapt to any changes in the market and be able to shape the future of the external environment (Lumpkin and Dess, 2001). To reach this stage of proactiveness, these businesses have to develop a proclivity to always be the first business to introduce new products, processes, or technological leadership (Venkatraman, 1989).

2.1.1.3 Risk-Taking

Risk-taking has always been perceived as an essential element in EO. Risk-Taking involves taking bold actions by venturing into the unknown, heavy borrowing, and/or committing significant resources to ventures in unknown environments (Sharma & Tarp, 2018).

2.1.2 Other internal factors

Researchers agree that to better understand firm growth, we need to study both organizational and managerial characteristics. Other internal factors that may have a possible relationship with the firm growth include the firm size and age. Previous research has supported the idea that large firms exhibit a slower growth rate than small firms. This is because small firms are more flexible and able to identify new opportunities, enabling them to grow rapidly. In contrast, large firms are slower to react because they are more structured, and the decision-making process is lengthier (Blackburn, et al., 2013).

In Portugal, an imperial study was conducted to test the impact of firm size and age on the financial constraints facing the firm. It was found that financial constraints on firm growth can be relatively more severe for small and young firms. In this study, the growth was measured by the employment growth rate across two consecutive years (Oliveira, Fortunato, 2006).

Another study conducted in the United Kingdom focused on the impact of firm age on its profitability. It is confirmed that younger firms are more likely to experience higher profitability growth. In Addition, results showed that the size and age of the firm have the most dominant effect on firm performance and are more important than the strategy and the entrepreneurial characteristics of the manager. Still, having a business plan is also found to be essential (Blackburn, et al., 2013).

2.2 External Factors affecting SMEs growth

There are numerous external factors that can affect the SME performance such as government structure and support, political openness, geographical location, and environmental-related factors.

2.2.1 Geographical location

The geographical location of the firm was found to have an impact on the firm growth. The financial structure of the firm varies if the firm is located in an urban or rural area. Sales, assets, and expenses (except for the transport and telecommunications costs) are higher if the firm is in an urban area (Locke, 2006).

2.2.2 Government Structure and Support

The government structure and support are considered two of the most influential external factors. If there are systematic weaknesses in the government system including flaws in its legal

system, unequal application of company law, over-bureaucratization and overregulation, and abuse of public office, these weaknesses constrain the firm growth and decrease the ease at which business activities are done. As well, corruption, government pressure on business, and challenging administrative barriers were highlighted as they hinder the development of business activities (Yukhanaev, et al., 2015). The government structure and support work as a full moderator between entrepreneurial values, firm financing, management, and market practices and firm growth (Mohd Shariff, et al., 2010).

2.2.3 Political Openness

Political openness and democracy have an adverse impact on the growth of SMEs in transition economies. The negative impact of political openness is decreasing as the proportion of the firm's labor force with a university degree increases; the results suggest that the collective bargaining of low-skilled workers might hinder the growth of SMEs in such transition economies (Chit, 2017).

2.2.4 Environmental Related Factors

Environmental hostility is defined as an environment with severe competition, precarious industry settings, harsh business climates, and a lack of opportunities. SME performance in such an environment is positively related to an organic growth, an entrepreneurial strategic posture, and a competitive profile characterized by a long-term orientation, high product prices, and a concern for predicting industry trends (Covin & Slevin, 1989).

2.3 Egyptian MSMEs

Egypt has one of the highest numbers of MSMEs in the Arab world. They contribute to about 80% of the GDP in Egypt. Additionally, MSMEs account for more than 90% of the private sector which accommodates around 65% to 75% of labor (Samir, 2015).

The Central Bank of Egypt (CBE) defines SMEs as below:

Table 1: CBE definition of MSMEs

Firm	**Existing**		**Newly established**	
	Annual Sales	No. of Employees	Paid Capital	No. of Employees
Micro	< 1,000,000 LE	< 10	< 50,000 LE	< 10
Small	1,000,000 LE-50,000,000 LE	< 200	• 50,000 LE-5,000,000 LE for industrial • 50,000 LE-3,000,000 LE for non-industrial	< 200
Medium	50,000,000 LE – 200,000,000 LE	< 200	• 5,000,000 LE-15,000,000 LE for industrial • 3,000,000 LE-5,000,000 LE for non-industrial	< 200

As the Egyptian government recognized the role of MSMEs in the economy of the country and its employment rate, the CBE has taken significant steps to assist in expanding the commercial lending to the Egyptian MSMEs. CBE has announced that the credit to MSMEs must account for at least 20% of all commercial banks' loan books in 2020. Additionally, MSMEs can access loans at a lower rate of 5% which is significantly lower than the CBE main credit rate of 11.25% at that time. Only 50% of the MSMEs use financial services to benefit from better access to finance. 5% of bank loans are provided to MSMEs which is lower than the MENA average of 8% (2016).

These results triggered researchers to understand why this is the case in Egypt and why most MSMEs do not seek financial services to grow. What really determines the access to finance in these firms? It was found that the smaller the firm, the more banking problems it will have. MSMEs reported that they face some problems with legal forms, economic activity, labor, capital, and sales turnover which have a great impact on having banking facilities. Still, the major obstacle these MSMEs face is their lack of entrepreneurial skills that make them able to do financial planning and benefit from the financial support the government is offering them to grow. In a market such as Egypt, it is crucial to understand entrepreneurial orientation and its impact on access to finance which leads to the MSME growth. Changing the mindset is a must through enhancing entrepreneurship education by offering training and 'awareness-raising' events (El-said, et al., 2013).

Egypt was one of the countries studied in Hampel-Milagrosa, Loewe, and Reeg research (2015) in which the author studied the entrepreneurs and their strategies to prove their importance on firm growth. The results showed that the firm is more likely to grow if the entrepreneur has high motivation and risk-taking ability, is willing to invest in human capital and R&D, and possesses personal wealth or access to family finance.

2.3.1 Their numbers and distribution

There is a high concentration of MSMEs at different levels. MSMEs are operating in two economic activities manufacturing and trade; few of them are exporting. The geographical distribution of MSMEs in Egypt is distorted as almost half of them are concentrated in three governorates Sharkeya, Cairo and Gharbeya (El-Said, et al., 2014).

The number of MSMEs in Egypt as of 2020 had been registered at 3.7 million with 9.7 million employees receiving a total salary of 119.2 billion. For 2017 and 2018 fiscal year, it was recorded that the MSMEs produced an output of LE 1.237 trillion and achieved an added value of LE 804 billion.

Micro-sized enterprises represent a total of 3.4 million which is 94% of the total MSMEs in Egypt, hiring 7.7 million employees representing 79% of the total employees in the field. The production of micro-sized enterprises is estimated at around LE 534.9 billion representing 43%, and they achieved an added value of LE 411.5 billion representing 51.2 %.

For small-sized enterprises, they represent 5.6% (total of 216.9). Their total output is LE 527.5 billion which is 42.6% of the total MSMEs production. They achieved an added value of LE 296.3 billion (38% of the total added value for all MSMEs).

Finally, the medium-sized enterprises make 0.1% of the total MSMEs in Egypt with a total production of 14.1% (LE 175.1) and an added value of 12% (LE 96.3). (Mena, 2020).

2.3.2 The Difficulties They Face

The most common challenges MSMEs face are the global market competition, global financial and economic crisis, information communication technology, a rise of Multinational Corporations, Transnational Corporations, changing profile of consumers and their preferences, trade dumping, international terrorism, religious conflicts, and trade wars. Due to these factors, the mortality of MSMEs especially after a short period of time is high. To face these difficulties and resume operation, the government took some steps to support MSMEs: digitization, tax reduction, soft loans at 5% interest, incubators development, including informal business in the

formal businesses sector (60% of the whole sector) via new MSME's law, gradual merging law, quality assistance, and tax accounts, microfinancing, financial disclosure, resolving bankruptcies and debt financing for MSMEs (El Naggar & El Naggar).

During the pandemic in 2020, the MSMEs have been facing different risks:

1- Lower sales values
2- Less working days and higher rates of absenteeism.
3- Decreased collection of receivables
4- Less export sales
5- Higher commodities cost.
6- firms cannot afford investments in marketing and technological development.
7- Decreased purchasing power by the consumers.
8- Higher expenditure.
9- More losses and waste.
10- Restrictions on transportation and disruptions in distribution channels to markets
11- Less capacity in institutions that provide services to MSMEs
12- Failures to deliver to business partners.
13- Uncertainty about corporate tax and central bank interest rates.
14- Change in consumer demand and preference.
15- Higher loans costs.
16- Difficulty reaching government departments for emergency support.
17- Skilled employees leave the firm fast (El Naggar & El Naggar).

2.4 Similar Work on MSMEs Growth Determinants

An important aspect of EO is the manager's growth aspirations. A study was conducted in Sweden to develop a model that relates the growth aspirations of the manager to the firm growth which was measured using sales and employment. The firms chosen in this study were all of the same size, age, and industry. The growth aspirations of the manager reflect the attitude towards growth and subjective norms; it was tested using questions about how the Chief Executive Officer (CEO) sees the company's ideal sales and a number of employees in five years. Then, the firm was tested after 3 years to see its actual growth. The study confirmed that the manager's aspirations to grow are directly proportional to the growth of the firm. Still, some factors can affect this relationship such as education, experience, and environmental dynamism. Those factors seem to amplify the result that growth aspirations have on growth. This is consistent with the theory of planned behavior and the importance of resources and access to opportunities in realizing aspirations. Additionally, it was found that the higher the access to finance the SME has, the higher the growth regardless of aspiration (Wiklund, Shepherd, 2003).

Investigating EO and marketing information impact on the SMEs' growth in Singapore indicated that EO plays an important role in the acquisition and utilization of marketing information. Furthermore, it positively affects firm growth in sales. The utilization of the marketing information, regarding marketing mix decisions (especially the Promotion and Place elements), is positively correlated with the firm growth and partially mediates the relationship between EO and firm growth (Keh, et al 2007). In another empirical study, the role of management capabilities and their impact on growth in high-growth businesses using a resource-based view perspective in Spain was investigated. The firms included were all of the same sizes on the employees' number and sales fronts. It was found that not all the managerial capabilities

impact the growth of the firm equally, but the most important capabilities are those related to businesses' marketing and financial capabilities. These two sets capabilities in particular are positively correlated with market expansion and innovation (Barbero, et al., 2011).

Innovation and locus of control are common characteristics of entrepreneurs. Hence, researchers investigated the impact of innovation and locus of control on firm growth. A study was conducted in Vietnam to understand the relationship between behavioral and personality traits of managers such as risk-taking, locus of control, and innovativeness and firm-level decisions which accordingly affect the firm performance. The paper confirmed that innovation and locus of control are directly proportional to firm performance which is measured by firm profitability. The study also found that the more risk-averse the manager is, the lower the revenues are (Sharma & Tarp, 2018).

2.5 Research Gap

Given that there is limited research that focuses on micro and small firms' growth in the Egyptian market, this study aims to bridge this gap by analyzing the divers of these firms' growth.

3. Methodology

3.1 Research Problem and Research Questions

The main problem of this study is to analyze the impact of entrepreneurial orientation which is divided into three factors (innovativeness, proactiveness, and risk-taking) on micro and small firms' growth and success in Egypt in terms of sales revenue, profit margin, and employment.

We will have three research questions. Question 1 is: does innovativeness affect micro and small firms' growth in terms of sales revenue, profit margin, and employment? Question 2 is does proactiveness affect micro and small firms' growth in terms of sales revenue, profit margin, and employment? Question 3 is does innovativeness affect micro and small firms' growth in terms of sales revenue, profit margin, and employment?

3.2 Research Model and Hypotheses

In this section, we will explain the model we are testing and the hypotheses for each EO factor in detail:

Indicators of firm performance

To measure the firm growth, we chose to work with three variables. First, the most used dependent variable is sales revenue growth because it represents both the short-term and long-term progress of the firm (Hoy et al., 1992). The growth in sales revenue is a widely accepted performance indicator (Barkham et al., 2005). Most of the research done on this topic used the sales revenue growth as an indicator for the firm growth. Second, the profit margin growth rate. This variable was suggested by the researcher. As mentioned earlier, most of the research that measured firm performance used either profitability or growth rate. Since we decided to test the

EO impact on growth rates, we wanted to have a sense of the profitability and its ratio against the sales revenue to assist in how healthy the firm is. The third variable is the employment growth rate. Fewer researchers used employment growth to measure the firm growth rate and proved it has positive relationship with EO (Wiklund 1999, Hashi and Krasniqi 2011).

Indicators of firm Entrepreneurial Orientation

Covin and Slevin's conceptualization of EO, based on the earlier work of Miller (1983), is the most widely used framework of the EO construct. This construct is based on three dimensions as mentioned earlier: innovativeness, proactiveness, and risk-taking. The multi-dimensional perspective advises that innovativeness, proactiveness, and risk-taking can offer a great contribution when conceptualizing EO. EO is very important when it comes to improving MSMEs performance and competitive advantage. Previous literature has proven that the higher the EO, the higher the firm performance (Baker and Sinkula 1999; Wales, Gupta, and Mousa 2013; Wiklund 1999).

The effect of Innovativeness on Growth

When a business puts more focus on the R&D and technological leadership, it fosters an organization that is open to experimentation and new strategic approaches (Atuahene-Gima and Ko 2001). This facilitates the development of a new organizational routine and new processes, products, and technologies. This technological leadership can be used to develop and implement breakthrough technologies which can be improve the business competitive advantage and accordingly its performance (Qian and Li 2003).

Innovativeness also helps the business to adapt to changing market conditions by introducing new and refined products. Innovative firms always introduce new ideas that are more attuned to the current changing market needs and enter new markets easier than non-innovative

businesses (Ireland et al. 2009; Stopford and Baden-Fuller 1990). SMEs can also leverage their innovativeness to simulate better level of organizational creativity that will allow them to change and redefine their portfolio range and meet their consumers' needs more (Ireland and Hitt 1999).

Previous literature had confirmed positive relationship between the introduction of new products and business performance (Roberts 1999; Rosenbusch et al. 2011; Terziovski 2010; Zahra 1996; Zahra and Bogner 2000). One of the downsides of innovativeness is its impact on financial obligation. For example, innovation requires a large expenditure of organizational resources which compromise the firm's ability to meet short term financial obligation. Another downside is that an innovation strategy requires the development of heterogenous capabilities during its early stages which is difficult due to the firm's limited resources. The innovation cost in the MSMEs is usually relatable to the up-front investments in the development of the business innovation capabilities and R&D in the business early stages. This means that the business will reach breakeven only when the results of the innovation and R&D starts to pay off their expenditure. It is hypothesized that innovativeness and firm performance have U-shaped relationship. This means that in the low to moderate stage of innovativeness the costs will be higher than the benefits. While in the moderate high levels, the benefits will cover the costs and more (Kreiser et al., 2012).

In the exploratory qualitative phase of our research which will be discussed in the coming section, some interviewees argued that innovativeness especially R&D and technological leadership subfactor does not necessarily affect the firm growth. They believed that if the firm over does the R&D, the growth can be negatively affected.

In this paper, we suggest that the innovation will affect with the firm performance as per most of the previous literature mentioned earlier. As per the scale used here that will be

discussed in the following sections, innovativeness is divided into 3 questions: question 1 asks about the R&D and technological leadership, question 2 asks about the number of new products the firm had marketed for in the past 5 years, and question 3 is about the changing intensity in these new products (Covin & Slevin, 1989).

H1: Innovativeness affects sales revenue growth.

H1A: R&D and technological leadership affects sales revenue growth.

H1B: Introducing more products affects sales revenue growth.

H1C More drastic changes in the new products affects sales revenue growth.

H2: Innovativeness affects profit margin growth.

H2A: R&D and technological leadership affects profit margin growth.

H2B: Introducing more products affects profit margin growth.

H2C: More drastic changes in the new products affects profit margin growth.

H3: Innovativeness affects employment growth.

H3A: R&D and technological leadership affects employment growth.

H3B: Introducing more products affects employment growth.

H3C: More drastic changes in the new products affects employment growth.

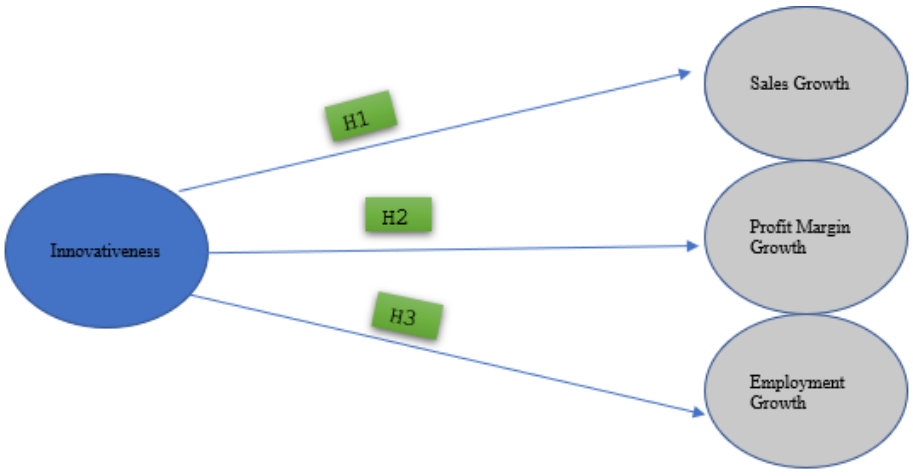


Figure 1: Innovativeness hypotheses

The effect of Proactiveness on Growth

Proactiveness help firms to better position themselves in the market by identifying any business opportunities which their competitors have not yet recognized. These firms set the rules for the game in their specific market which indicate that any benefit from a potential opportunity in the market is maximized. On the other hand, non-proactive businesses have difficulty catching up with continuous changes in the market (McMillan 1983).

Proactive firms always search their environment for potential opportunities that can be used to satisfy unserved markets and be the leader in the market (Smith and Cao 2007). Successful proactive businesses take advantage from increased levels of demands, higher customer loyalty, higher profitability (Covin and Miles 1999).

All the above-mentioned advantages of proactiveness are likely maximized at high levels as the firm competitors will always be in the position to follow the proactive firm footsteps. However, the cost of proactiveness is relatable to the up-front investments in developing the proactive capabilities in the business. Kreiser et al. suggests that proactiveness is like innovativeness, it has a U-shaped relationship with the firm performance (Kreiser et al., 2012).

In our study, we will focus on the relationship between proactiveness and firm performance suggested by Covin and Miles (1999). The higher the proactiveness measure the higher the firm performance. The proactiveness is measured as well by 3 questions: question 1 is discussing the how often the firm leads its competitors, question 2 is measuring how often the firm introduces new products before the competitors, question 3 is testing how the firm deals with its competitors' actions (destroy or live and let live) (Covin and Miles 1999).

H4: Proactiveness affects sales revenue growth.

H4A: Leading the competitors affects sales revenue growth.

H4B: Introducing new products before the competitors affects sales revenue growth.

H4C: Being more aggressive against the competitors affects sales revenue growth.

H5: Proactiveness affects profit margin growth.

H5A: Leading the competitors affects profit margin growth.

H5B: Introducing new products before the competitors affects profit margin growth.

H5C: Being more aggressive against the competitors affects profit margin growth.

H6: Proactiveness affects employment growth.

H6A: Leading the competitors affects employment growth.

H6B: Introducing new products before the competitors affects employment growth.

H6C: Being more aggressive against the competitors affects employment growth.

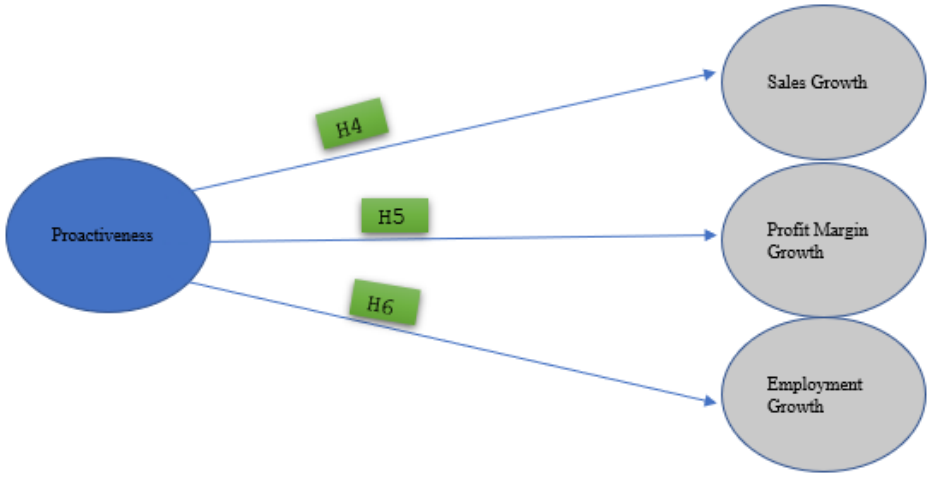


Figure 2: Proactiveness hypotheses

The Effect of Risk-Taking on Growth

A firm that takes risk is more decisive and able to take strategic decisions faster which enhances its performance (Eisenhardt 1989). Being exposed to entrepreneurial activities gives risk taking firms higher level of experimental knowledge which leads to the creation of firm specific insights (Zahra et al. 1999). When this level of knowledge increases, the firm will be able to detect any possible changes in the market conditions and will be able act accordingly.

Hence, the firm decreases the possibilities to fail due to changes in the market and increases the possibilities to succeed (Folta 2007; Shepherd et al. 2009). Previous research done on the Egyptian markets found that the higher the risk-taking the management of the firm is, the higher the firm performance (Milagrosa, et.al. 2015)

Unlike innovativeness and proactiveness, risk taking takes a different relationship with the firm performance (Kreiser et al., 2012). The cost of risk taking are always higher than the benefits in both low and high levels of risk-taking in MSMEs. For example, risk averse firms can miss out on valuable opportunities and can experience high opportunity costs at low levels of risk taking. While high levels of risk taking are associated with higher costly failure (Alvarez 2007). Literature has found that risk taking has a curvilinear relationship with firm performance in MSMEs (Begley and Boyd 1987). The risk-return paradox assumes that positive financial returns will decrease as a firm increase its risk-taking behavior above certain point. One cause of this theory is that a well-managed firm will be able to use effective strategies to get higher performance while minimizing the risk-taking strategies (Andersen et al. 2007). MSMEs usually takes risk to reach higher performance, but excessive risk-taking increases the probabilities of downside loss (Kreiser et al., 2012).

Still in our study, we will focus to prove the impact of risk-taking on firm performance. As suggested by Covin and Miles the higher the risk-taking, the higher the firm performance. Risk-taking is divided into 3 questions: the first question measures the proclivity of the firm to take risky projects; the second question measures the risky decisions the firm is willing to take; the third question measures how bold the firm can act when facing uncertainty.

H7: Risk-Taking affects sales revenue growth.

H7A: The proclivity for risk projects affects sales revenue growth.

H7B: Taking risky decisions affects sales revenue growth.

H7C: Being more bold with uncertainty affects sales revenue growth.

H8: Risk-Taking affects profit margin growth.

H8A: The proclivity for risk projects affects profit margin growth.

H8B: Taking risky decisions affects profit margin growth.

H8C: Being more bold with uncertainty affects profit margin growth.

H9: Risk-Taking affects employment growth.

H9A: The proclivity for risk projects affects employment growth.

H9B: Taking risky decisions affects employment growth.

H9C: Being more bold with uncertainty affects employment growth.

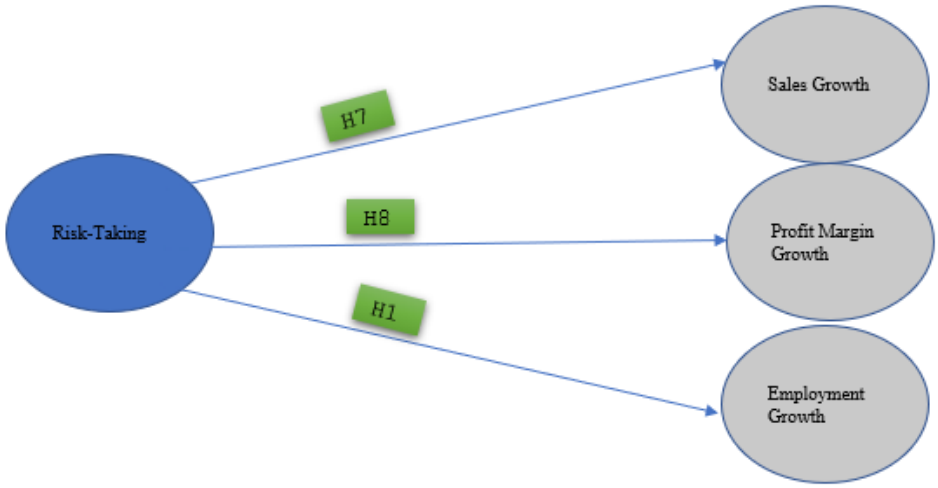


Figure 3: Risk-taking hypotheses

The Overall Research Model:

Figure 4 below describes the consolidated model of all hypotheses this paper is testing.

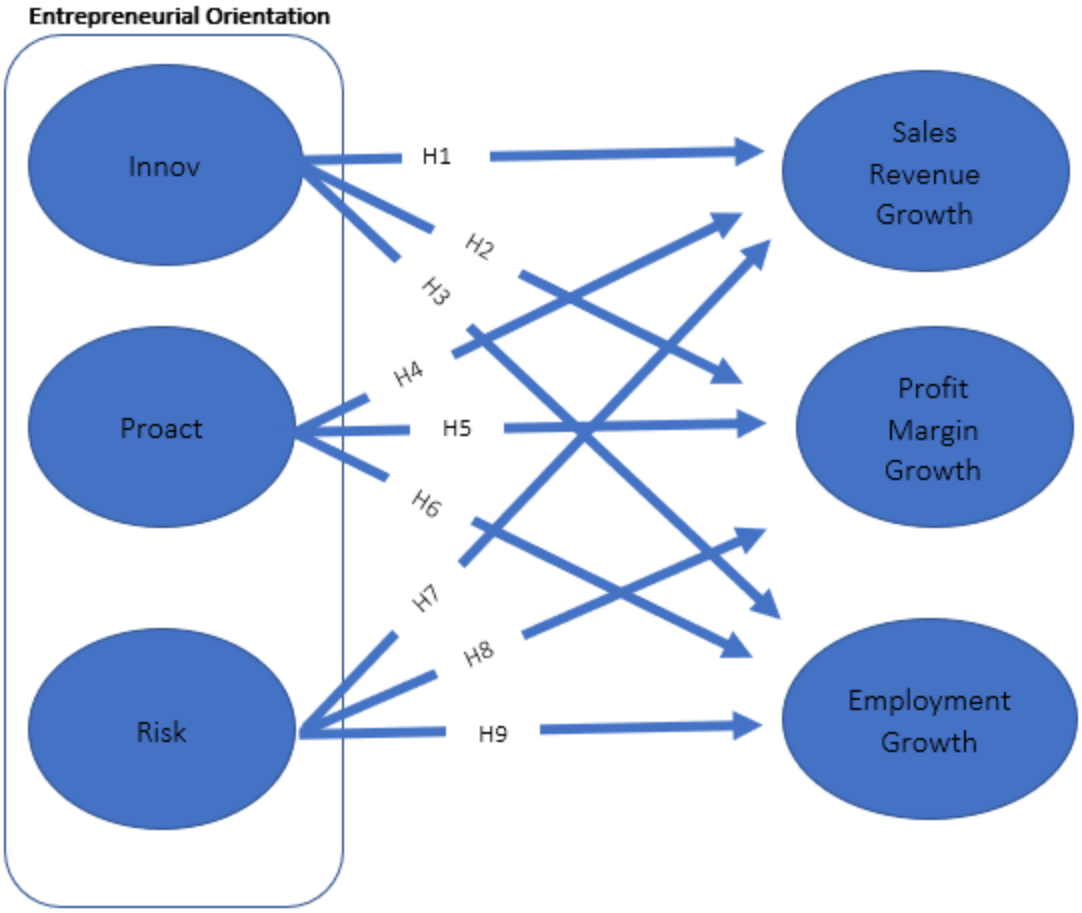


Figure 4: Consolidated model with all hypotheses

3.3 Phase 1: Exploratory Qualitative phase

Although the literature review confirms that the entrepreneurial orientation of the business owner/managing director is positively related to the business growth, qualitative research was done to confirm that hypothesis in Egypt. 17 interviews were held with MSMEs owners/directors to get their insights about the hypothesis, the model, and the survey questions. In this section, the insights of the in-depth interviews will be discussed.

3.3.1 Instrument

The detailed interview is added in the appendix. The interview was divided into 6 sections. Section 1 discussed general information about the interviewee's education and career. Section 2 was the EO scale. Section 3 discussed some financial information: the starting paid in capital, government support for the business, how much of the assets are financed by debt, and CBE 5% interest rate initiative. Section 4 discussed the firm performance (dependent variables). Section 5 discussed access to finance and different method of fundings the firms seek. Section 6 had the control variables measures.

3.3.2 Sample Description

The 17 MSMEs chosen in this phase were selected as successful growing firms in the market that can give us insights about the ecosystem of the MSMEs in Egypt. The sample of this study was drawn by judgmental sampling. In-depth interviews were done with the owners/managing directors of the business.

3.3.3 Qualitative phase findings

One of the first insight we got when explaining the model was that the number of employees' growth will not necessarily increase with the higher firm growth. Rather, it is suggested by some of the firm owners that it depends on the business nature and industry. One of the firms' owners said that "the firm is running with almost the same number of employees for the past 3 years, and we are not expecting higher number of employees in the short-term future". Another point that was raised during the interviews was the effect of innovation and R&D on the firm growth rate. Some did not recognize that being more innovative can lead to higher firm growth. "If the firm overdoes R&D, it can negatively affect the growth" said by one of the

interviewees. Being proactive and risk taker was ranked more important than being innovative. When discussing the effect of Covid-19 on their businesses, some businesses sales revenue growth was positively impacted by Covid-19 while others suffered. Hence, it was suggested that the industry, environment, and timing impacted the owners' decisions heavily and should be taken into consideration. Business owners could not act as freely as they used to before Covid-19. Most of the interviewees did not seek any corporate loans because of the high risk it involves as some were asked to put their personal properties such as family homes and cars as guarantees. As well, it was always considered that an investor is a safer option as he/she will be taking the risk with owner. When discussing the government support with the interviewees, business owners/directors operating in the Fintech industry have rated the government support question the highest rate while other business owners were indifferent or rated it lower than average. On the other hand, manufacturing firms had received the lowest support from the government compared to other industries in this phase. Few of the business owners interviewed did not want to disclose their last year profits; hence, the researcher changed it to the CBE definition of MSMEs and their categories.

3.3.4 Input for quantitative phase

As a result of the interview process, some modifications have been done in the survey model questions:

1- Changed the last year sales revenue scale to match the CBE definition
2- Removed the individual EO test part (Section 7 in the interview) as many interviewees mentioned that it is lengthy, and they act in their personal lives different from the business lives.
3- Removed the access to finance section 5 as it is not applicable in our model.

4- Changed the scale of the dependent variable to more detailed scale as suggested by many of the interviewees.

3.4 Phase 2: Conclusive Quantitative:

This section will explain the details of conclusive quantitative phase. It will start with the explanation of the instrument used. Then, the sample used will be explained.

3.4.1 Instrument

The survey (detailed survey in the appendix) is divided into 3 sections:

The first section asks general questions about the business. In this section, there are questions about the business age, industry type, if they know about the CBE 5% interest rate on loans initiative, and how would they rate the government support to their business on a scale from 1 to 5.

The second section is the EO scale developed by Covin and Slevin (1989). The researcher used the series of semantic differential scale from 1 to 5. The EO scale is divided into 3 items as explained earlier:

- Innovation has the three main questions (Innov.1, Innov.2, and Innov.3) stated below:

In general, the top managers of my firm favor . . .

Innov.1	A strong emphasis on the marketing of tried-and-true products or services	A strong emphasis on R&D, technological leadership, and innovations

How many new lines of products or services has your firm marketed in the past 5 years?

Innov.2	No new lines of products or services	Very many new lines of products or services

Innov.3	Changes in product or service lines have been mostly of a minor nature	Changes in product or service lines have usually been quite dramatic

- Proactiveness has the three main questions (Proact.1, Proact.2, and Proact.3) stated below:

In dealing with its competitors, my firm . . .

Proact.1	Typically responds to actions which competitors initiate	typically initiates actions which competitors then respond to
Proact.2	Is very seldom the first business to introduce new products/ services, administrative techniques, operating technologies, etc.	Is very often the first business to introduce new products/ services, administrative techniques, operating technologies, etc.
Proact.3	Typically seeks to avoid competitive clashes, preferring a 'live-and-let-live' posture	Typically adopts a very competitive, 'undo the-competitors' posture

- Risk Taking has the three main questions (Risk.1, Risk.1, and Risk.3) stated below:

In general, the top managers of my firm have . . .

Risk.1	A strong proclivity for low-risk projects (With normal and certain rates of return)	A strong proclivity for high-risk projects (With chances of very high returns)

In general, the top managers of my firm believe that ...

Risk.2	Owing to the nature of the environment, it is best to explore it gradually via timid, incremental behavior	Owing to the nature of the environment, bold, wide-ranging acts are necessary to achieve the firm's objectives

When confronted with decision-making situations involving uncertainty, my firm. . .

Risk.3	Typically adopts a cautious, 'wait-and-see' posture in order to minimize the probability of making costly decisions	Typically adopts a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities

Third section has the measures for the dependent variables. As mentioned earlier, there are three dependent variables to indicate firm growth: sales revenue growth rate, profit margin growth rate, and employment growth rate. For each variable, the researcher wanted to have a longer time frame to see the impact of EO on both short term and long term in the past and the future. Respondents were asked in the survey about their growth rates 3 years ago (P.3), a year ago (P.1), expected growth rates next year (F.1), and expected growth rates 3 years from now (F.3). One of the objectives of taking this time frame is to test the status of the growth in the past as compared to the expectation in the future. Meanwhile, the impact pf Covid-19 can be seen on firm growth. To measure the growth rate, the below scale was used for each growth variable in table 2:

Table 2: dependent Variable Scale

Choices in the growth questions	Scale
Decline	-1
Stayed the same	0
Increase by 0-10%	1
Increase by 11-25%	2
Increase by 26-50%	3
Increased by more than 50%	4

Last section in the survey is mainly asking about environmental aspect that can affect the MSMEs growth. Environmental dynamism and munificence were measured using a scale from 1 to 3. Environmental dynamism contains items measuring the rate of product obsolescence, the predictability of competitor's actions, the predictability of demand and consumer tastes, and the rate of technological change within the industry, as well as how often the firm had to change its marketing practices (Khandwalla 1977; Miller and Friesen 1982). Environmental munificence contains item measuring current profitability of the industry, the projected long-term (5 years or more) profitability of the industry, the market growth rate in the industry over the last 3 years, and the projected long-term market growth rate (5 years or more) for the industry (by Schultz et al. 1995).

3.4.2 Sampling and Data Collection

To collect the data, the plan was to reach 200 micro and small firms. Nevertheless, the researcher could only get 90 responses due to the time constraint. The researcher tried to reach business owners through LinkedIn, emails, and common network. Usually, owners did not respond to the messages on LinkedIn or emails unless it was through a mutual connection which limited our reach for firms. Other firms were reached through going to local markets such as “Souq El-Fostat” and government supported bazars and distributing the survey. Hence, the sample of this study was drawn by judgmental sampling.

Reaching micro firms was easier than small and medium firms, and the researcer had to make sure that at least there are 30 firms in the small firms range to be able to do comparative analysis between the two groups to have a representable sample that can yield good analysis.

4. Analysis and Results

4.1 Sample Characteristics and Descriptive Findings

The data used in this study to test the hypotheses were collected from micro and small firms in Cairo in 2021-2022. In accordance with the CBE standards of MSMEs, MSMEs are defined as firms which has sales revenue up to 200 million EGP as stated earlier. The survey was sent to MSMEs owners/managing directors who are the decision makers of the business, and their decisions can change the firm strategy. The population consisted of Egyptian micro and small firms; they have few shareholders or family businesses. A total of 90 responses on the survey were received; the detailed portfolio for each firm will be found in the appendix. The firms included in the model operate in 5 different industries Fashion and Handmade, Fintech, Food and Beverages, Manufacturing, and Services, as shown in the below in figure 2:

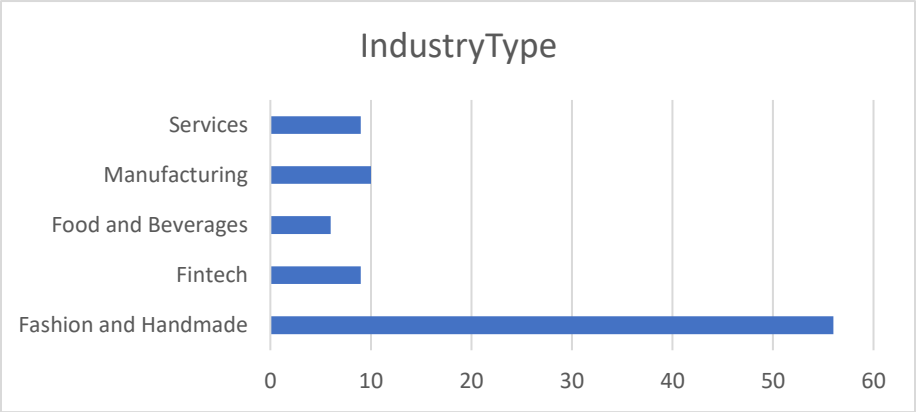


Figure 5: Industry distribution in the model

60 firms of the 90 firms included are micro firms (their sales revenue is less than 1 million), and 30 firms are small firms (their sales revenue is between 1M and 50M). The firms ages ranges from less than 5 years to 40s. 28% of the sample is less than 5 years; 72% is more than 5 years in operation. The mean of the business age is 8.76 years.

81% of the firms reported that they were profitable while 19% were unprofitable. The profit margin of the firms is concentrated in the range of 0-25% with a percentage of 67%; more than 25% profit margin has a percentage of 23%. The number of employees in the firms range from less than 10, from 11 to 50, and more than 51. The highest range in the sample is the less than 10 as it represents 52% of the sample.

In the survey, respondents were asked about their awareness of the CBE initiative of 5% interest rates on loans for MSMEs. 32% of the firms were not aware of such initiative. When asked about the government support for their businesses, the responses were mostly neutral. 42% rated the government support as 3 out of 5 (1: not supportive; 5: very supportive). 34% rated the government support as 1 or 2, and the remaining 23% rated higher than 3. The mean of the responses on the government support is 2.78 which is below the average.

Measuring EO as mentioned earlier includes 3 factors: innovativeness, proactiveness, and risk-taking. For innovation responses, all 3 questions had a mean higher than the average (especially higher number of new products marketed for by the firm in the past 5 years, its mean= 3.86). The proactive questions also had responses higher the average (especially introducing new products to the market before competitors, its mean=4.04). Last in EO scale is risk taking; responses on the 3 questions are above average. The highest mean of the three questions in risk-taking is the higher proclivity for taking risky projects with a mean of 3.43.

Moving to responses on growth rates, similar pattern in all three growth indicators used in our model can be seen: sales revenue growth, profit margin growth, and employment growth. For the sales revenue growth, there is a drop-in growth rates mean last year compared with 3 years ago which is explained by COVID-19 effect on sales revenue. Then, in the future (next year and 3 years) owners are optimistic and expecting higher growth rates than the past. Same

behavior is noticed in the growth rates means of the profit margin and number of employees, as shown in the graph below.

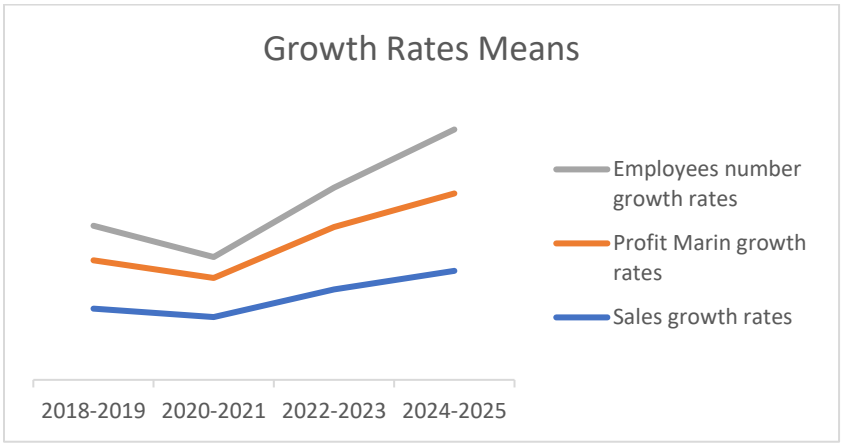


Figure 6: Growth rates means across 6 years

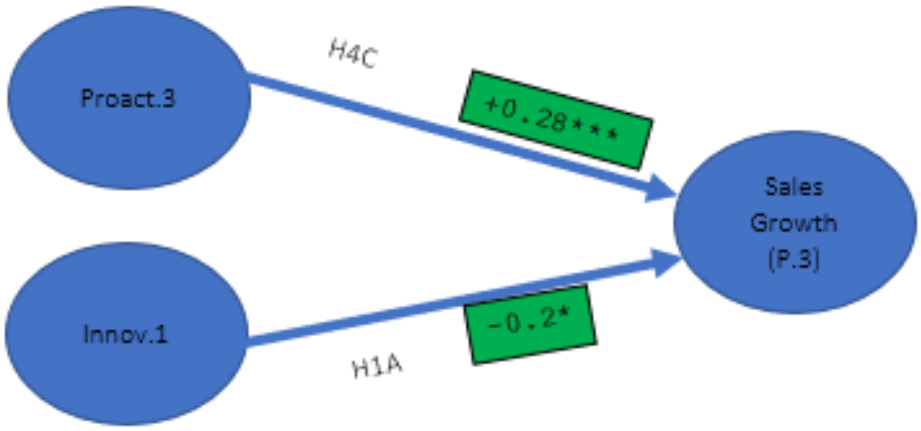
4.2 Hypothesis Testing

In this section, the 9 hypotheses we stated earlier are testes. Regression was used to test the relationship between each EO subfactors and firm growth rates.

4.2.1 Factors Affecting Firm Sales Revenue Growth

Sales Revenue Growth Past 3 Years

The factors that affected sales revenue growth in the past 3 years, as per the figure below are R&D and technological leadership and aggressiveness against the competitors. Both factors were proven to be significantly affecting sales revenue growth in the past 3 years with adjusted R square of 8%. The hyposthesees that were tested and proven in this test are H1A and H4C as shown in figure 7. Being more aggressive against the competitors in the market and doing less R&D positively and significantly affected the sales revenue growth in the past.

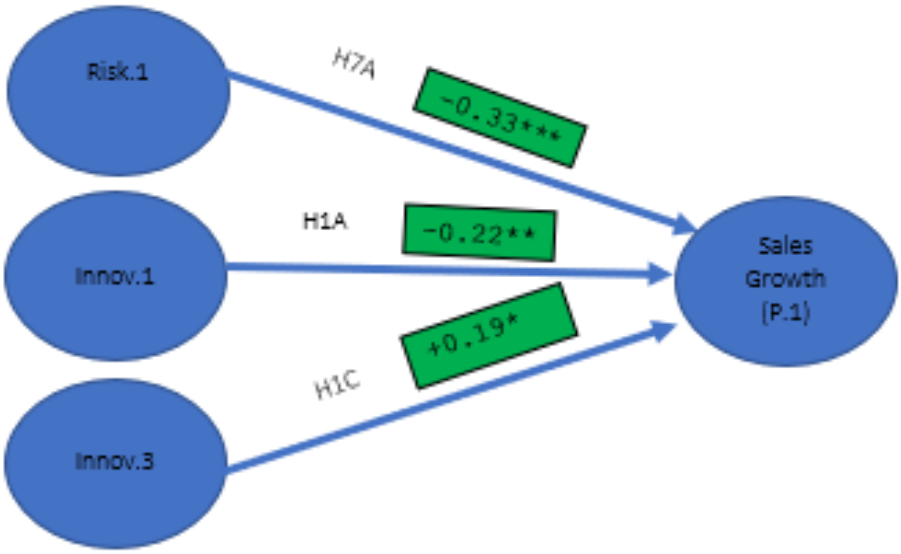


*p<0.1; **p<0.05; ***p<0.01

Figure 7: Factors affecting sales revenue growth rates past 3 years.

Sales Revenue Growth Last Year

Last year, three factors proven to significantly affect sales revenue growth with adjusted R square=9%. These factors are the proclivity towards taking risky projects, R&D and technological leadership, and changes intensity of new products. The hypotheses that were tested in this part and proved to be significantly affecting sales growth last year are H7A, H1A, and H1C. As per the figure 8 below, Risk.1 is the most important factor that affected sales revenue growth last year. Firms that have higher proclivity to take risky projects experienced higher growth rate than firms that had lower proclivity.

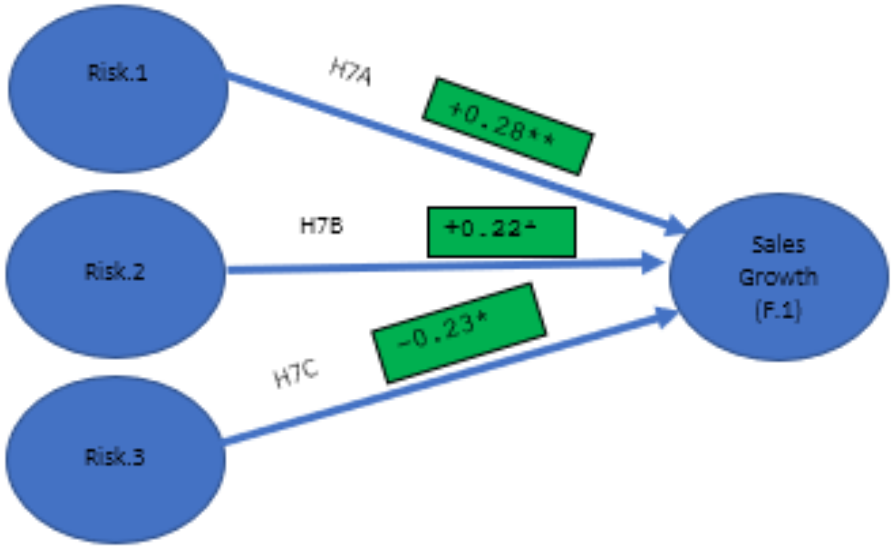


*p<0.1; **p<0.05; ***p<0.01

Figure 8: Factors affecting sales revenue growth rates past year.

Sales Revenue Growth Next Year

Next year, risk factors are proven to be significantly affecting the sales revenue growth with adjusted R square of 8%. The hypotheses that had proven to have significant impact on growth are H7A, H7B, and H7C as in the figure 9 below. Firms that take more risky projects and decisions but are more cautious in situations involving uncertainty are expecting higher growth rate next year than firms that does not.

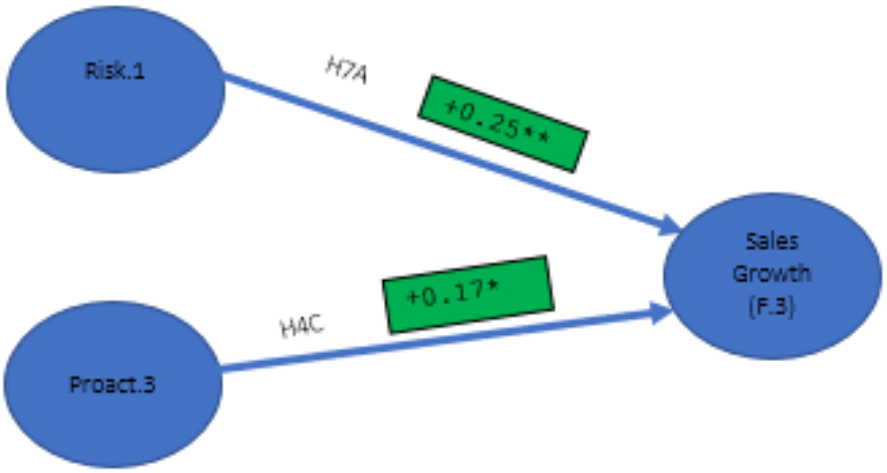


*p<0.1; **p<0.05; ***p<0.01

Figure 9: Factors affecting sales revenue growth rates next year.

Sales Revenue Growth Next 3 years

In the long-term future, which was measured by the expected growth rate in after 3 years, two hypotheses were tested and proven to have a significant effect on the growth rate (H7A and H4C as shown in figure 10 below). The adjusted R square for this test is 7.6%. firms expected higher growth rates are the firms that have higher proclivity for high-risk projects and more aggressive against their competitors.



*p<0.1; **p<0.05; ***p<0.01

Figure 10: Factors affecting sales revenue growth rates next 3 years.

In the below table, the summary of the above findings on sales revenue growth is illustrated. Two hypotheses have significant effect on sales revenue growth through different times (H7A, and H1A). The most important factor is higher proclivity for taking high-risk projects. Firms which have higher proclivity for taking risky projects, do less R&D and technological leadership, and are more aggressive against their competitors have higher sales revenue growth rates. Another important finding is that innovation R&D and technological leadership had negative impact on growth in the past, but its effect disappears in the future (no significant relationship was detected in the future). Higher proclivity for taking risk projects started to be important and affect the sales revenue growth positively last year (Covid-19 year). Hence, its importance was recognized by owners and it became significant in both short and long-term future.

Table 3: Summary of factors affecting sales revenue growth

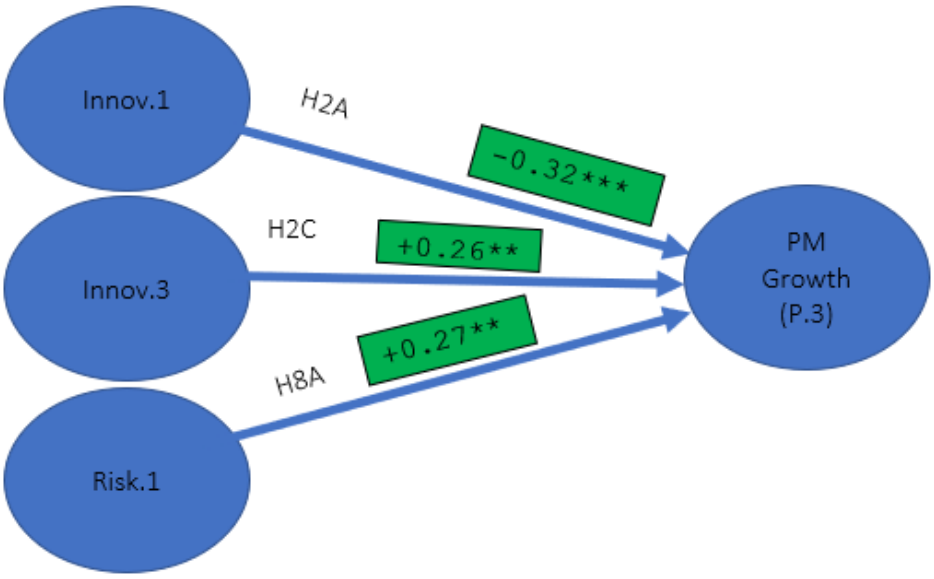
	Hypotheses	Sales P.3	Sales P.1	Sales F.1	Sales F.3
Innov.1	H1A	-0.204*	-0.221**		
Innov.2	H1B				
Innov.3	H1C		0.188*		
Proact.1	H4A				
Proact.2	H4B				
Proact. 3	H4C	+0.277**			+0.17*
Risk.1	H7A		+0.33***	+0.28**	+0.25**
Risk.2	H7B			+0.22*	
Risk.3	H7C			-0.23*	
Adj R2		8%	9%	8%	7.6%

*p<0.1; **p<0.05; ***p<0.01

4.2.2 Factors Affecting Firm Profit Margin Growth

Profit Margin Growth Past 3 Years

Profit margin growth 3 years ago was significantly affected by R&D and technological leadership, new products changes intensity, and proclivity for risk projects. The three hypotheses that were proven of significance are H2A, H2B, and H7A with adjusted R2= 12%, as shown in figure 11. Most important factors that affected the profit margin growth was doing R&D and technological leadership; It had negative effect on growth.

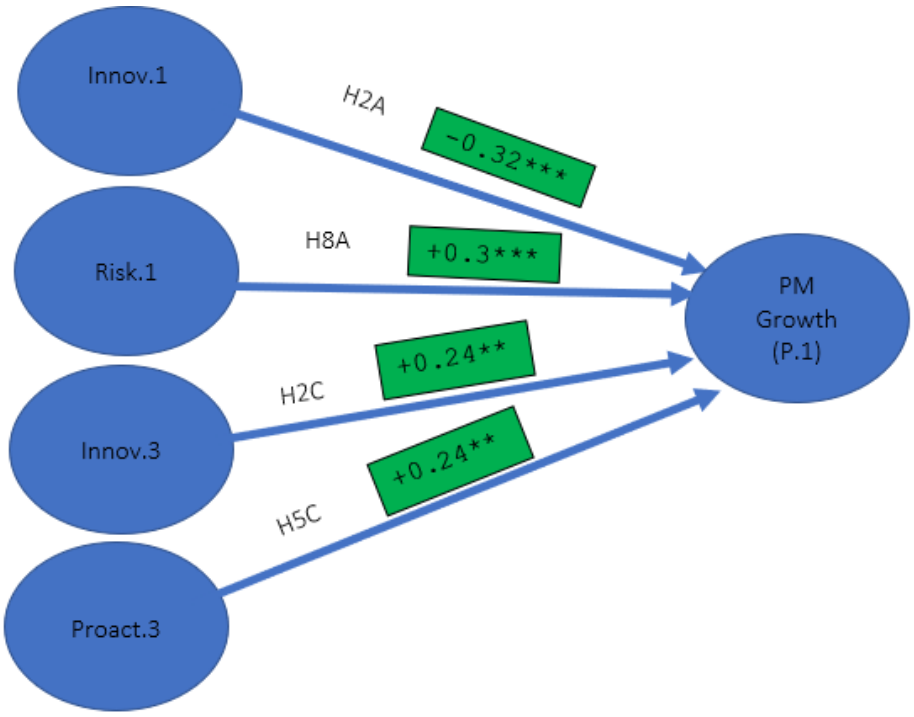


*p<0.1; **p<0.05; ***p<0.01

Figure 11: Factors affecting profit margin growth rates past 3 years.

Profit Margin Growth Last Year

Last year, 4 factors had significant effect on profit margin growth rate. R&D and technological leadership, new products changes intensity, being more aggressive against competitors, and proclivity for high-risk projects which represents these hypotheses: H2A, H2B, H5C, and H8A with adjusted R2=17%, as shown in figure 12. Firms that had higher proclivity to take risk projects, did lower R&D, were more aggressive with the competitors, and did drastic changes in their new products had higher growth rate that firms that did not. This represents the growth in Covid-19 year; it appears that in that year more risks were taken to make success and less R&D was required as the market was not ready for it at Covid-19 crisis.

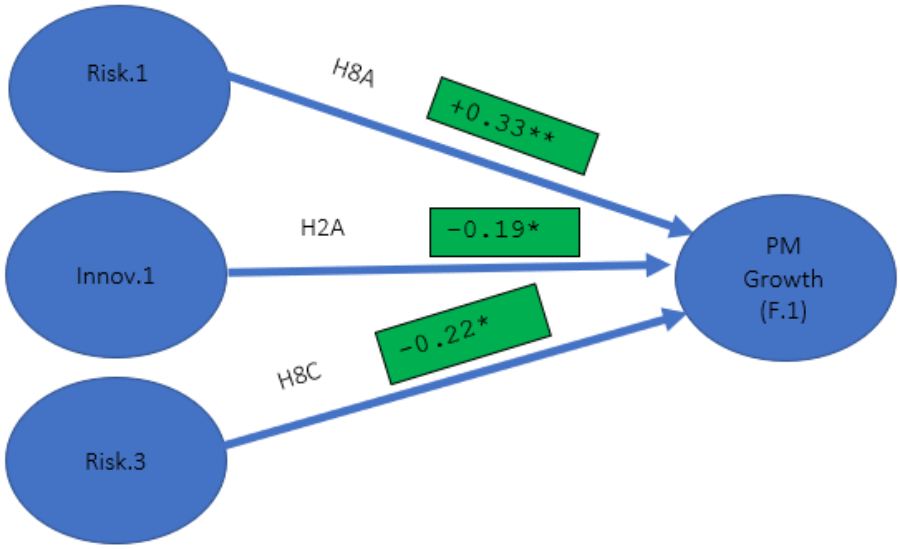


*p<0.1; **p<0.05; ***p<0.01

Figure 12: Factors affecting profit margin growth rates past year.

Profit Margin Growth Next Year

The factors that proved significant effect on profit margin growth next year with adjusted R2= 6% are proclivity to take risk projects (H8A), R&D and Technological leadership (H2A), and being bold when faced with uncertainty (H8C) as shown in figure 12. It could be proven that taking more risk projects is the most important factor that is expected to yield higher profit margin growth next year.

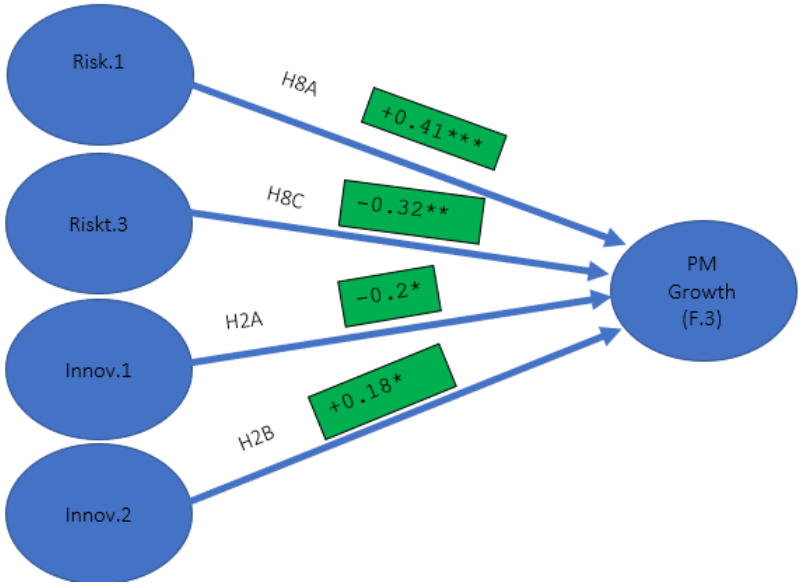


*p<0.1; **p<0.05; ***p<0.01

Figure 13: Factors affecting profit margin growth rates next year.

Profit Margin Growth Next 3 years

In the long-term future, same factors that affected profit margin growth in the short-term future (next year) will affect the long-term future, plus one factor more which is offering more new products in the market. The hypothesis that proven to be significant in the is test are: H2A, H2B, H8A, and H8C as shown in figure 13. The proclivity for risk projects still is the most important factor that is expected to increase growth next 3 years.



*p<0.1; **p<0.05; ***p<0.01

Figure 14: Factors affecting profit margin growth rates next 3 years.

In the below table, the summary of the above findings on profit margin growth is illustrated. Two hypotheses have significant effect on profit margin growth through all 4-time periods (H8A, and H2A). The most important factors are the proclivity for taking high-risk projects and the R&D and technological leadership. Firms that have higher proclivity for taking risky projects and do less R&D and technological leadership have higher profit margin growth rates. While taking more risky projects prove to have significant impact on profit margin growth across all studied years in the model, businesses have decided to be more cautious with uncertainty in the future to avoid any potential extra losses or costs. Being bold in situations involving uncertainty did not prove to be significant in the past years. Nevertheless, it is expected to negatively affect the expected growth rates in the future. This can be explained by the fear owners have now after the Covid-19 crisis; they want to be more cautious and take “wait and see posture” in order to minimize any potential losses.

Table 4: Summary of factors affecting profit margin growth

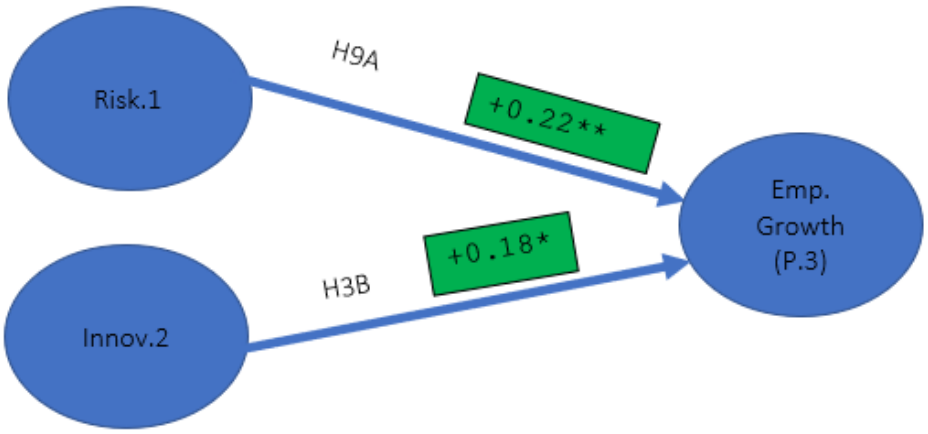
	Hypotheses	PM P.3	PM P.1	PM F.1	PM F.3
Innov.1	H2A	-0.32***	-0.32***	-0.19*	-0.19*
Innov.2	H2B				+0.18*
Innov.3	H2C	+0.26**	+0.24**		
Proact.1	H5A				
Proact.2	H5B				
Proact. 3	H5C		+0.24**		
Risk.1	H8A	+0.27**	+0.3***	+0.33**	+0.41***
Risk.2	H8B				
Risk.3	H8C			-0.22*	-0.32**
Adj R2		12%	17%	6%	13%

*p<0.1; **p<0.05; ***p<0.01

4.2.3 Factors Affecting Firm Employment Growth

Employment Growth Past 3 Years

The employment growth in the past 3 years was significantly affected by the proclivity for risk projects (H9A) and offering new projects (H3B) with an adjusted R2=5%, as shown in figure 14. The higher the proclivity for taking risk projects and the more new products the firm market for, the higher the growth rate was.

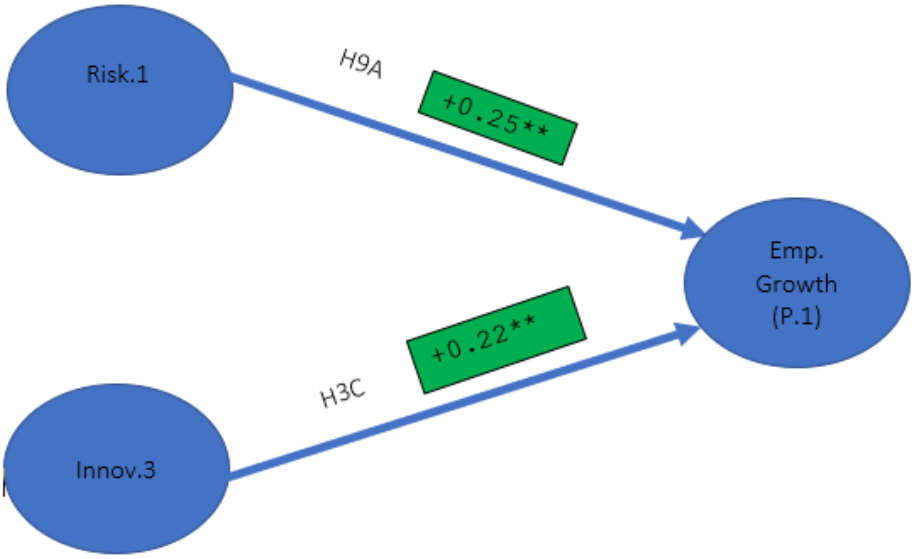


*p<0.1; **p<0.05; ***p<0.01

Figure 15: Factors affecting employment growth rates past 3 years.

Employment Growth Last Year

For last year, employment growth was proven to be significantly affected by the proclivity for high-risk projects (H9A) and new products changes intensity (H3C) with adjusted R2=7%. Same as last 3 years, the proclivity for taking risk project is more important and has positive impact on growth rate.

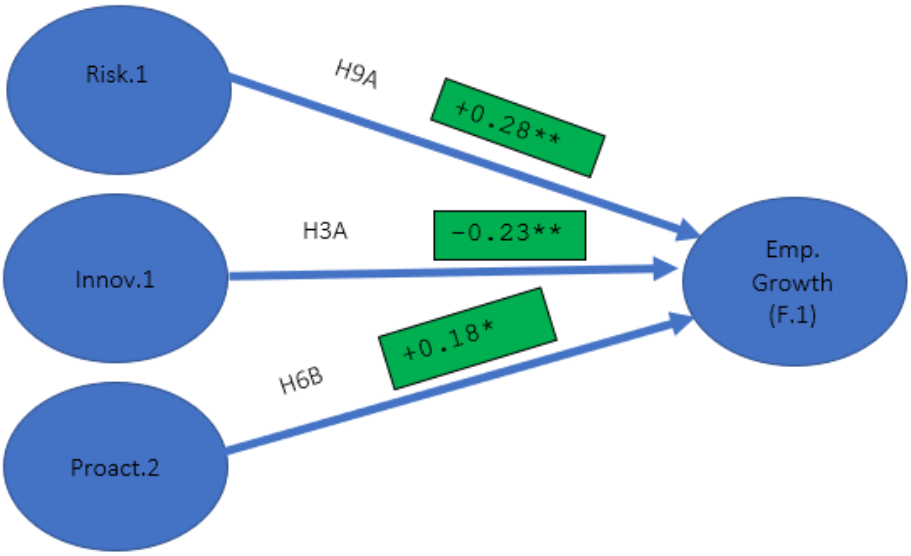


*p<0.1; **p<0.05; ***p<0.01

Figure 16:Factors affecting employment growth rates past year.

Employment Growth Next Year

For the short-term, employment growth is significantly affected by proclivity for taking more risk projects (H9A), doing R&D and technological leadership (H3A), and introducing new products before the competitors (H6B) with adjusted R2=9% (figure 16). Firms that have higher proclivity for taking risky projects and do less R&D are expecting to have higher growth rates.



*p<0.1; **p<0.05; ***p<0.01

Figure 17: Factors affecting employment growth rates next year.

Employment Growth Next 3 years

Employment growth expected in the coming 3 years is significantly affected by one factor only which is the proclivity for taking more risk projects (H9A) with adjusted R2=7% (Figure 17).

*p<0.1; **p<0.05; ***p<0.01

Figure 18: Factors affecting employment growth rates next 3 years.

In the below table, the summary of the above findings on employment growth rates is illustrated. One hypothesis has significant effect on employment growth through all 4-time

periods which is H9A. The higher proclivity for taking risky projects has proven to be the most important factor that affects employment growth in the past and future.

Table 5: Summary of factors affecting employment growth

	Hypotheses	Emp. P.3	Emp. P.1	Emp. F.1	Emp. F.3
Innov.1	H3A			-0.23**	
Innov.2	H3B	+0.177*			
Innov.3	H3C		+0.218**		
Proact.1	H6A				
Proact.2	H6B			+0.181*	
Proact. 3	H6C				
Risk.1	H9A	+0.221**	0.249**	+0.284***	+0.284***
Risk.2	H9B				
Risk.3	H9C				
Adj R2		5%	7%	9%	7%

*p<0.1; **p<0.05; ***p<0.01

5.3 Managerial Analysis

Importance of sales growth and Satisfaction of Sales growth

The mean of the responses on this question is 4.58 out of 5. The importance of sales growth is significantly higher than 4. While the same test was tested on the satisfaction of sales growth which has a mean of 3.16, it could not be proven to be significantly above 3. Importance of Sales growth in small firms mean is significantly higher than micro firms mean.

Government Support

The average of the response on the government support scale (1 to 5) is 2.78 as stated earlier which is below the average 3. To analyze this variable more, we did one sample T-Test to prove if its significantly below 3. It could be proven that we are more than 95% confident that the perception of government support is below average, as per the table below.

Variable	T-Value = 3	Test	Sig (P-Value)
Government support	2.78	Test to prove if it is significantly <3	0.047**

*p<0.1; **p<0.05; ***p<0.01

Table 6: Tests on Government support variable

Entrepreneurial Orientation Factors Evaluation:

Innovativeness

All 3 factors in innovativeness are proven to be significantly above the average. The table below gives the results of some tests done on the innovativeness factors. Innov.2 is significantly higher than Innov.1 and Innov.3. For offering more new products in the market, micro firms have significantly higher mean than small firms. Micro has a mean of 4.02 while the small has a mean of 3.52.

Table 7: Tests on innovativeness variable

Variable	T-Value=3	Test	Sig (P-Value)
Innov.2 & Innov.1	Innov.2=3.86 Innov.1=3.39	Test to prove if Innov.2 is significantly higher than Innov.1	0.007***
Innov.2 & Innov.3	Innov.2=3.86 Innov.3=3.38	Test to prove if Innov.2 is significantly higher than Innov.3	<0.001***
Innov.2	Innov.2 in Micro=4.02 Innov.2 in Small=3.53	Test to prove if Innov.2 in micro firms is significantly higher than in small	0.037**

*p<0.1; **p<0.05; ***p<0.01

Proactiveness

Proact.1 and Proact.2 are proven to be significantly above the average. Proact.2 is significantly higher than Proact.1. Proact.3 is significantly lower than Proact.2 and Proact.1. For the Proact.1, small firms mean is significantly higher than micro firms mean. Small firms' mean is 4 and micro mean is 3.67. Proact.1 in Profitable firms is significantly higher than non-profitable. The detailed significance for each test is in the table below:

Table 8: Tests on proactiveness variable

Variable	T-Value=3	Test	Sig (P-Value)
Proact.2 & Proact.1	Proact.2=4.04 Proact.1=3.78	Test to prove if Proact.2 is significantly higher than Proact.1	0.01**
Proact.3 & Proact.2	Proact.3= 3.07 Proact.2=4.04	Test to prove if Proact.3 is significantly lower than Proact.2	<0.001***
Proact.3 & Proact.1	Proact.3=3.07 Proact.1=3.78	Test to prove if Proact.3 is significantly lower than Proact.1	<0.001***
Proact.1	Proact.1 in Small=4.00 Proact.1 in Micro=3.67	Proact.1 is higher in small firms than in micro firms	0.062*
Proact.1	Proact.1 in profitable=3.85 Proact.1 in non-profitable=3.47	Proact.1 is higher in profitable firms than in non-profitable firms	0.074*

*p<0.1; **p<0.05; ***p<0.01

Risk-Taking

The Risk.1 is proven to be significantly above the average. The other two factors of risk-taking about the uncertainty and risky decisions were not as significant as the risky projects (significant at 10% level). Proclivity for taking risky projects is significantly higher than taking risky decisions and being bold in situations involving uncertainty. For risk.1, small firms mean is

significantly higher than micro mean. Risk.2 in small firms mean is significantly higher than micro firms mean. Risk.1 and Risk.3 in profitable firms is significantly higher than non-profitable firms. Below table shows the significance of each test:

Table 9: Tests on risk-taking variable

Variable	T-Value=3	Test	Sig (P-Value)
Risk.1 & Risk.2	Risk.1=3.43 Risk.2=3.17	Test to prove if Risk.1 is significantly higher than Risk.2	0.022**
Risk.1 & Risk.3	Risk.1=3.43 Risk.3=3.20	Test to prove if Risk.1 is significantly higher than Risk.3	0.031**
Risk.1	Risk.1 Small firms=3.73 Risk.1 Micro firms=3.28	Risk.1 is higher in small firms than in micro firms	0.04**
Risk.1	Risk.1 Profitable firms=3.56 Risk.1 non-profitable firms=2.88	Risk.1 is higher in profitable firms than in non-profitable firms	0.016**
Risk.3	Risk.3 Profitable firms=3.29 Risk.3 non-profitable firms=2.82	Risk.3 is higher in profitable firms than in non-profitable firms	0.078*

*p<0.1; **p<0.05; ***p<0.01

Growth Rates Evaluation

Sales Revenue Growth

In the past 3 years, the sales revenue growth was significantly higher than the average. For last year growth rate, it could not be proven that it is higher than the average. For the outlook in the future both short term and long term, it can proven that it is significantly higher than the average. In the past, sales revenue growth's mean is significantly higher than last year. Short term future's sales revenue growth is significantly higher than last year. Both long-term and

short-term future are significantly higher than the past. This indicates that the sales revenue growth was doing well before Covid-19 which dropped the growth rates; owners are very optimistic about the future that they can do significantly higher growth than the past.

Sales revenue growth rate in the past in small firms is significantly higher than micro firms. Sales revenue growth rate in the short-term future in small firms is significantly higher than micro firms. Sales revenue growth rate is significantly higher in the profitable firms than non-profitable. In the table below, tests done and its results will be stated:

Table 10: Tests on sales revenue growth variable

Variable	**T-Value=1.5**	**Test**	**Sig (P-Value)**
S(P.3) & S(P.1)	S(P.3)=1.8 S(P.1)=1.59	Test to prove if S(P.3) is significantly higher than S(P.1)	O.49**
S(F.1)& S(P.1)	S(P.1)= 1.59 S(F.1)=2.29	Test to prove if S(F.1) is significantly higher than S(P.1)	<0.001***
S(F.3)& S(F.1)	S(F.1)= 2.29 S(F.3)=2.76	Test to prove if S(F.3) is significantly higher than S(F.1)	<0.001***
S(F.3)& S(P.1)	S(P.3) =1.8 S(F.1)= 2.29	Test to prove if S(F.1) is significantly higher than S(P.3)	<0.001***
S(F.3)& S(P.3)	S(P.3) =1.8 S(F.3))=2.76	Test to prove if S(F.3) is significantly higher than S(P.3)	<0.001***
S(P.3)	S(P.3) in micro=1.42 S(P.3)in small=2.57	Test to prove if S(P.3) in small is significantly higher than S(P.3) in micro	0.001***
S(P.1)	S(P.1) in micro=1.23 S(P.1)in small=2.30	Test to prove if S(P.1) in small is significantly higher than S(P.1) in micro	0.001***
S(F.1)	S(F.1) in micro=2.10 S(F.1)in small=2.67	Test to prove if S(F.1) in small is significantly higher than S(F.1) in micro	0.038**

*p<0.1; **p<0.05; ***p<0.01

When comparing the sales revenue growth rates across the 5 industries, we found the below interesting findings:

- During the Covid-19 year, we could prove that “Fintech” has significantly higher growth rate than “Manufacturing” and “Fashion and Handmade”.
- In the past, sales revenue growth rate in “Fintech” is significantly higher than “Fashion and Handmade”.
- For short-term future, sales revenue growth rate in “Fintech” is expected to be the highest across all industries but the significance disappears.
- For long-term future, “Fintech” sales revenue growth rate has significantly higher growth rate than “Manufacturing”. As well, “Fashion and Handmade” has significantly higher growth rate than “Manufacturing”.

Profit Margin growth

In the past, the profit margin growth was significantly less than the average. In last year, the growth is very significantly below the average. For the short-term future, it could not be proven that it will be higher than the average. But for the long term, it will have significantly higher growth than the average. Last year is significantly lower than past 3 years and short-term future. Past 3 years is significantly lower than the future both long-term and short-term. short-term future is significantly lower than the long-term future. Profit Margin growth rate in the past in small is significantly higher than micro firms. Profit margin growth rate is significantly higher in the profitable firms than non-profitable in all periods. In the table below, the tests done and its results will be stated:

Table 11: Tests on profit margin growth variable

Variable	T-Value=1.5	Test	Sig (P-Value)
PM(P.3)& PM(P.1)	PM(P.3)=1.23 PM(P.1)=0.99	Test to prove if PM(P.3) is significantly higher than PM(P.1)	0.009***
PM(F.1)&PM(P.3)	PM(F.1)=1.58 PM(P.3)= 1.23	Test to prove if PM(P.3) is significantly lower than PM(F.1)	0.002***
PM(F.3)&PM(P.3)	PM(F.3)=1.96 PM(P.3)= 1.23	Test to prove if PM(P.3) is significantly lower than PM(F.3)	<0.001***
PM(F.1)&PM(F.3)	PM(F.1)= 1.58 PM(F.3)=1.96	Test to prove if PM(F.1) is significantly lower than PM(F.3)	<0.001***
PM(P.3)	PM(P.3) in micro=0.95 PM(P.3) in small=1.77	Test to prove if PM(P.3) in small is significantly higher than PM(P.3) in micro	0.005***
PM(P.1)	PM(P.1) in micro=0.84 PM(P.1) in small=1.27	Test to prove if PM(P.1) in small is significantly higher than PM(P.1) in micro	0.08*

*p<0.1; **p<0.05; ***p<0.01

When comparing the profit margin growth rates across the 5 industries, it was found that:

1) Profit margin growth rate in Covid-19 year in “Fintech” is significantly higher than “Manufacturing”, “Services”, and “fashion and Handmade”
2) Profit margin growth rate in the past in “Fintech” is significantly higher than “Manufacturing” and “fashion and Handmade”.
3) Profit margin growth rate in short-term future in “Fintech” is significantly higher than “Manufacturing”.

Employment Growth

In the past 1 year and 3 years, it was significantly less than the average. For the short term, it is expected to be significantly less than the average as well. For the long term, it could not be proven if it will be significantly higher/lower than the average. Last year is significantly lower than the past and the short-term future. The past is significantly lower than long-term future. Short-term future is significantly lower than the long-term future. But it could not be proven that the employment growth next year is higher than the employment growth 3 years ago (pre-COVID-19). Employment growth rate is significantly higher in small firms than in micro in all periods. Employment growth rate in long-term future is significantly higher in the profitable firms than no profitable.

Table 12: Tests on employment growth variable

Variable	**T-Value=1.5**	**Test**	**Sig (P-Value)**
E(P.3)&E(P.1)	E(P.3)=0.87 E(P.1)=0.53	Test to prove if E(P.1) is significantly lower than E((P.3)	0.002***
E(P.1)&E(F.1)	E(F.1)=1.00 E(P.1)= 0.53	Test to prove if E(P.1) is significantly lower than PM(F.1)	<0.001***
E(P.3)&E(F.3)	E(P.3)= 0.87 E(F.3)=1.62	Test to prove if PM(P.3) is significantly lower than PM(F.3)	<0.001***
E(F.1)&E(F.3)	E(F.1)=1.00 E(F.3)= 1.62	Test to prove if PM(F.1) is significantly lower than PM(F.3)	<0.001***

*p<0.1; **p<0.05; ***p<0.01

When comparing the employment growth rates across the 5 industries, it was found that:

1) In Covid-19 year, “Fintech” has significantly higher growth rate than all other industries.

2) In the past, “Fintech” has significantly higher growth rate than “Manufacturing” and “Fashion and Handmade”.
3) In short-term future, “Fintech” has significantly higher growth rate than “Manufacturing” and “Fashion and Handmade”.
4) In the long-term future: “Fintech” a has significantly higher growth rate than “Fashion and Handmade”.

5. Discussion

5.1 Conclusion

The results discussed in the previous section offer important findings and insights on the management of micro and small firms in Egypt and its impact on the actual growth in the past and the expected growth in the future. In this research, strategic management scientific area could be related to finance by discovering a relationship between EO and sales revenue and profit margin growth rates. The impact of the EO factors on the firm’s performance over a 6-years period was studied. These time periods are chosen to compare historical growth rates with expected future ones. Furthermore, interesting insights were concluded about the effect of Covid-19 on the growth rate and on the management behavior. The effect of EO factors on firms’ growth was different from one factor to another as discussed earlier.

Each factor of the EO was divided into 3 subfactors and treated each as an independent variable to see its impact on growth rates and reach more detailed results. Each subfactor was given its own hypothesis to test and understand if it affects any of the firm growth indicators or not. This gave us a better understanding of the firms’ mechanism and growth determinants. The most important subfactor affecting the growth rate of firms is the proclivity for taking high-risk

projects (Risk-1). Firms that have a higher proclivity for taking more risky projects had higher growth rates in the past and are expecting higher growth rates in the future compared to firms that had a lower proclivity for risky projects. This confirms previous research findings on risk-taking and firm growth rates (Milagrosa, et.al. 2015, Sharma & Tarp, 2018). The second important subfactor affecting the firms' growth is the R&D and technological leadership (Innov-1). Firms which have more R&D and technological leadership had experienced lower growth rates in the past and expected lower growth rates in the future, compared to firms that have less R&D. In our research, most of the papers confirmed that the more innovation the firm does, the higher the competitive advantage and accordingly the higher the firm growth (Qian and Li 2003, Atuahene-Gima and Ko 2001, Ireland et al. 2009; Stopford and Baden-Fuller 1990). Our result was different; it confirmed the initial finding of our exploratory qualitative phase in which some interviewees argued that R&D will not necessarily affect the firm growth rates. This can be explained as the R&D that was done in the past could not make its way through Covid-19 to meet its objectives. Hence, it might have failed due to the global crisis and changes in customers' tastes and needs. As mentioned earlier, some researchers suggested that R&D impact on the firm growth appears in the future (Kreiser et al., 2012). Even in the future, it was found that R&D and technological leadership is expected to have the same negative impact on firms' profit margin and employment growth. This suggests that firms that could afford to do R&D do not expect its benefits to appear in the next 3 years.

The first indicator of performance is the sales revenue growth which is very commonly used in most of the papers done on this topic as it can represent both the short-term and long-term progress of the firm (Hoy et al., 1992). Before Covid-19, sales revenue growth was affected by two subfactors. The more significant subfactor is how aggressive the firms' managers deal

with the competitors, and the second factor is the R&D and technological leadership. The more aggressive the firm was with its competitors and the less R&D the firm did, the higher the growth rate was. Last year during Covid-19, sales revenue growth was also affected by R&D, proclivity for taking high-risk projects, and new products changes intensity. Firms that experienced higher growth are firms that have a higher proclivity for taking risky projects, their new products have more drastic changes to adapt to Covid-19 and do less R&D. Owners and directors learned from Covid-19 period the importance of taking more high-risk projects on growth. Hence, proclivity for high-risk projects became the most important subfactor affecting future growth. In the short-term future, firms that expected a higher growth rate in the future are firms that have a higher proclivity to take on risky projects, act bolder to explore and achieve the firm's objectives, and act more cautious with decision-making situations involving uncertainty. For the long-term future, optimistic firms that expect higher growth rates are the firms that still have a higher proclivity for the risky project and are more aggressive with their competitors which was a key factor in the 3 years ago analysis.

The second growth indicator is the profit margin growth rate. The researcher suggested this variable. Research that was done on this topic as mentioned earlier mostly used two ways to measure firm performance: profitability, or growth. the researcher choses to work with growth but wanted to have a sense of profitability in our model. Hence, profit margin growth was measured as one of the growth indicators. 3 years ago, similar to sales revenue growth, profit margin growth was affected by the R&D. Two other factors proved to have a significant impact on growth: a proclivity for taking risky projects and changes intensity in new products. Firms that had higher growth are firms that have a higher proclivity for high-risk projects, do more drastic changes in their new products, and do less R&D. Last year during Covid-19, the same

subfactors affected the growth rate as in the past in addition to one subfactor which is the aggressiveness with the competitors. The more aggressive the firm is with its competitors, the higher the growth rate the firm had. For the coming year, higher proclivity for taking high-risk projects is the main key to higher growth then come less R&D and being more cautious with situations involving uncertainty. For the long-term future, the same subfactors affecting the short-term future are affecting the long-term future in addition to offering more new products. Investing in R&D is very problematic with profit margin growth across all periods in this study. It may affect the growth in a longer-term period but not now, especially with the Covid-19 crisis.

The last growth indicator is the employment growth rate. It is a less common indicator used in previous research (Wiklund 1999, Hashi and Krasniqi 2011). 3 years ago, employment growth was higher in firms that had a higher proclivity for taking on high-risk projects and introduced more new products in the market. Last Year, proclivity for the high-risk projects had the same effect on growth. Additionally, firms that had done more changes in their products had higher growth rates. In the short-term future, optimistic firms that are expecting higher growth rates are firms that have a higher proclivity for high-risk projects, offer new products before their competitors, and do less R&D. For the long-term future, only one subfactor will significantly affect the employment growth which is a higher proclivity for taking risky projects. From the above, it can be concluded that a higher proclivity for taking risky projects is the most important subfactor affecting employment growth through all periods.

In the figure below, the trend of the important subfactors that most commonly affected growth rates through the time periods tested is shown.

Figure 19: Important subfactors of EO affecting growth over 6 years

Three years ago, the most common subfactors that affected firm growth were proclivity for high-risk projects and R&D. The firms that had a higher proclivity for high-risk projects and did less R&D grew more than firms that did not. During Covid-19, the same subfactors affected growth in addition to one new subfactor which is the intensity of changes in the new products. At Covid-19, the more drastic changes were done in the new products, the higher the growth rates of sales revenue, profit margin, and employment of the firm were. Firms that could adapt to the Covid-19 crisis and the shift in customer needs by changes in their new products at that critical time could grow more than firms that did not. Firms' owners and managing directors had learned that the main key to growth is to take the risk and invest in projects that can yield high returns. In both the short-term and long-term future, a higher proclivity for taking risky projects is the most important determinant of employment growth.

One of the important findings of this paper is the government support finding. When respondents were asked to rate the government support of their business, the responses were that the government support is below average. This gives us the insight that with all the initiatives the government is doing to support these firms; they do not recognize that they are helping enough.

Owners/directors think that sales revenue growth is very crucial, but they are not satisfied with the current sales level. This can be related back to the Covid-19 impact as many of the firms

in the model suffered from sales revenue drop in 2020. Nevertheless, they are optimistic about the future growth rates of their firms.

Firms rated their innovativeness above average; still, the most significant of all the innovativeness questions is offering more new products in the market. Micro firms are more flexible in offering new products to the market than small firms as they are trying to increase their portfolio and respond quickly to customer needs.

Measuring the firm's ability to lead its competitors, small firms could lead their competitors more than micro-firms could which makes sense as these firms are stronger in the market. As well, firms rated their aggressiveness against competitors the lowest and preferred to adapt to a "live and let live" posture.

Proclivity for taking risky projects has been rated the highest, especially in small firms more than in micro firms. This can be because micro-firms are more cautious because of their smaller profits.

The firm performance, measured by the growth rate, follows the same trend in sales revenue, profit margin, and employment growth. The firms were performing well before Covid-19; then, Covid-19 hits the world causing a drastic drop in growth rates. Nevertheless, firms' owners/directors are optimistic and expect higher growth rates next year and even higher growth rates in the coming three years; they are expecting higher growth rates in all aspects than it used to be 3 years ago (before Covid-19).

Small firms had higher sales revenue growth rates in the past, and they are expecting to perform better than micro-firms in the short-term future. As well, small firms always have higher employment growth than micro firms. Micro firms are operating with a small number of

employees and are not expecting to increase this number as they are cautious after Covid-19. As there were 5 different industries, some interesting insights into their growth rates were found. Fintech's golden era was during the Covid-19 year, and it is expected to continue in higher growth than other industries in the future. On the other hand, the manufacturing industry is suffering among other industries.

5.2 Academic Contributions

In our research, a model that evaluates EO impact on micro and small firms' growth in Egypt has been developed for the first time. Our work added one new variable that was not done before in previous literature which is the profit margin growth as one of the growth indicators for firm performance. Profit margin growth has shown a similar trend to the previously used growth indicators (sales revenue and employment).

EO was broken down into subfactors as the researcher wanted to study each subfactor thoroughly and get more focused insights about each subfactor and its importance on growth. Accordingly, some subfactors that did not prove any significant impact on the firms' growth as suggested by the literature. R&D was suggested by previous research that it has a positive impact on firm growth rate (Qian and Li 2003, Atuahene-Gima and Ko 2001, Ireland et al. 2009; Stopford and Baden-Fuller 1990). In this research, it had proven to have a negative impact on growth over different periods of time on the three indicators of growth rates. Another subfactor is a higher proclivity for the high-risk projects; it was confirmed in previous research to have a positive impact on growth (Milagrosa, et.al. 2015, Sharma & Tarp, 2018), and our findings confirmed the same on the three growth indicators over different periods in Egypt.

In this model, the EO impact on growth was tracked over different time periods in the past and the future which was not done before in previous literature. The researcher wanted to examine the impact of EO factors on the actual growth in the past and compare it with the expected growth in the future. Meanwhile, Covid-19 impact on growth could be studied.

5.3 Managerial Implications

As mentioned earlier, firms do not see that government support is enough. Hence, the government should get in contact more with micro and small firms' owners and do more research in this area to understand their needs and help them to grow.

Firms' owners/directors are encouraged to focus on well-studied projects with relatively high-risk that can yield high returns to capitalize on the uncertainty of the market and adapt to market changes. As per our findings, the management of micro and small firms are recommended to focus more on making more drastic changes in their new products to adapt to the customers' needs rather than on investing in R&D. R&D impact is in the long run while the more changes in the products happened to have a direct impact on growth rates during Covid-19.

As the Covid-19 situation is stabilizing, it could be seen that in the future being more aggressive with the competitors is expected to increase the sales revenue growth rates. Hence, the firm management is recommended to be more aggressive in the market and adopt an "undo the competitors" posture.

5.4 Limitations

In our work, only 90 micro and small firms were studied. Increasing the sample size was difficult for two reasons. First, the data collection phase was during 2020-2021 which made it difficult to approach any businesses due to the lockdown. Second, reaching MSMEs owners was

difficult, especially with the time constraint to finish the data collection phase. Many of the surveys shared with owners/directors were not filled as they were afraid to share any figures. The researcher had to approach them by phone on an individual basis to assure them that their figures will remain anonymous. The last limitation is that as mentioned earlier most of the MSMEs were operating in one industry "Fashion and Handmade". As well, the researcher wanted to reach to medium firms to have the impact of EO on the MSMEs in Egypt not only the micro and small, but it was so difficult.

5.5 Agenda for Future Research

For future research, it is recommended to have a higher random sample that represents the actual market. As well, the researcher can find the industry's distribution at the time of the research and follow this distribution in the sample data he/she is collecting. Another very interesting research would be to study the impact of Covid-19 on firms' growth and how it changed their perspective of growth and their management styles.

As stated earlier, this model introduced a new variable that was not done before in previous research which is profit margin growth. Future research can use this variable as a dependent variable to test the impact of EO in different countries.

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7. Appendix

1- Interview questions

1. General Information about the Interviewee and the company:

Title of the Business:	…….....
Name of the Interviewee	

Gender:	Female	Male
	○	○

Date:	Day	Month	Year
	……..	……..	.....

1- How old are you	
2- What is your highest level of education completed	
3- What was your major back in college	
4- From which university did you graduate	
5- Do you have prior working experience before this business? If yes, what is it?	
6- Are you an owner, partner, or director of the business?	
7- Are you a senior decision-maker of the business?	
8- What is your current percentage of ownership in the business?	

9	**Identify your ownership in the business?** *(Select only one)*

○	I am the sole owner
○	I am not an owner
○	I am a part owner with; *(Select all that apply)*
□	Family members and relatives
□	Close Friends or Business Friends

☐	Venture capital firms or Business Angels (Individual Investors providing capital and/or Know-how to young innovative firms)
☐	Other Firms or Business Associates
☐	Other (Please Specify):……..

10 - In what year was the business founded	
11- Is your business registered	
How would you rate the government support for SMEs	**1-5**

3. Assessing Individual Entrepreneurship Orientation in the firm (Independent Variable):

This scale is mentioned in detail in the instrument section.

4. Financial knowledge

What was your starting paid in capital range?

○	< 50,000
○	50,000 – 5 million EGP
○	5 million – 15 million EGP

1	Do you know about the Central Bank of Egypt-CBE initiative to provide loans to small enterprises with annual interest rate of only 5%?

○	Yes
○	No

2	How much of your assets are financed by debt?

……..%

5. The firm performance position (Dependent Variable)

A. sales

3- Degree of importance of the firm sales growth	**1 to 5**
4- Current level of Satisfaction with the firm sales growth	**1 to 5**

5	A)	In the past 12 months, what were your company's total annual revenues?

○	Less than 1 million EGP
○	1 million – 5 million EGP
○	5 million – 10 million EGP
○	10 million – 50 million EGP
○	50 million – 100 million EGP
○	100 million – 150 million EGP
○	150 million – 200 million EGP
○	More than 200 million EGP

B)	**How much did this revenue grow from last year?**

○	Revenues grew by 10% to 20%
○	Revenues grew by more than 20%
○	Revenues stayed about the same
○	Revenues declined by 10% to 20%
○	Revenues declined by more than 20%
○	I do not calculate Revenues
○	I don’t know how to calculate Revenues

B)	**How much did this revenue grow in the last 3 years?**

○	Revenues grew by 10% to 20%
○	Revenues grew by more than 20%
○	Revenues stayed about the same
○	Revenues declined by 10% to 20%
○	Revenues declined by more than 20%
○	I do not calculate Revenues
○	I don’t know how to calculate Revenues

B)	**How much do you expect this revenue to grow next year?**

○	Revenues will grow by 10% to 20%
○	Revenues will grow by more than 20%
○	Revenues will stay about the same
○	Revenues will decline by 10% to 20%
○	Revenues will decline by more than 20%
○	I do not calculate Revenues
○	I don't know how to calculate Revenues

B)	**How much do you expect this revenue to grow in the coming 3 years?**

○	Revenues will grow by 10% to 20%
○	Revenues will grow by more than 20%
○	Revenues will stay about the same
○	Revenues will decline by 10% to 20%
○	Revenues will decline by more than 20%
○	I do not calculate Revenues
○	I don't know how to calculate Revenues

B. Profit Margin

6	**A)**	**Is your business profitable?**

○	Yes
○	No

B)	What is your current profit margin range?

○	0 – 10%
○	10 – 25 %
○	25 – 50%
○	50 – 75 %
○	75 – 100 %

B)	How much did your profit margin grow from last year?

○	Profit margin grew by 10% to 20%
○	Profit margin grew by more than 20%

○	Profit margin stayed about the same
○	Profit margin declined by 10% to 20%
○	Profit margin declined by more than 20%
○	I do not calculate Profit margin
○	I don’t know how to calculate Profit margin

B)	How much did your profit margin grow from 3 years ago?

○	Profit margin grew by 10% to 20%
○	Profit margin grew by more than 20%
○	Profit margin stayed about the same
○	Profit margin declined by 10% to 20%
○	Profit margin declined by more than 20%
○	I do not calculate Profit margin
○	I don’t know how to calculate Profit margin

B)	How much will your profit margin grow next year?

○	Profit margin will grow by 10% to 20%
○	Profit margin will grow by more than 20%
○	Profit margin will stay about the same
○	Profit margin will decline by 10% to 20%
○	Profit margin will decline by more than 20%
○	I do not calculate Profit margin
○	I don’t know how to calculate Profit margin

B)	How much will your profit margin grow in 3 years ?

○	Profit margin will grow by 10% to 20%
○	Profit margin will grow by more than 20%
○	Profit margin will stay about the same
○	Profit margin will decline by 10% to 20%
○	Profit margin will decline by more than 20%
○	I do not calculate Profit margin
○	I don’t know how to calculate Profit margin

C. Employees

7	A)	In the past 12 months, how many permanent, full time employees did your business have? (Permanent, full-time employees are defined as all employees that are employed for a term of one or more fiscal years and/or have a guaranteed renewal of their employment and that work a full shift)

○	Less than 10 employees
○	10 – 50 employees
○	50 – 100 employees
○	100 – 150 employees
○	150 – 200 employees
○	More than 200 employees

B)	How much did your employees grow from last year?

○	Employees number grew by 10% to 20%
○	Employees number grew by more than 20%
○	Employees number stayed about the same
○	Employees number declined by 10% to 20%
○	Employees number declined by more than 20%
○	I don’t know

B)	How much did your employees grow compared to 3 years ago?

○	Employees number grew by 10% to 20%
○	Employees number grew by more than 20%
○	Employees number stayed about the same
○	Employees number declined by 10% to 20%
○	Employees number declined by more than 20%
○	I don’t know

B)	How much will your employees grow in one year?

○	Employees number will grow by 10% to 20%
○	Employees number will grow by more than 20%
○	Employees number will stay about the same

○	Employees number will decline by 10% to 20%
○	Employees number will decline by more than 20%
○	I don't know

B)	How much will your employees grow in 3 years?

○	Employees number will grow by 10% to 20%
○	Employees number will grow by more than 20%
○	Employees number will stay about the same
○	Employees number will decline by 10% to 20%
○	Employees number will decline by more than 20%
○	I don't know

5. Access to finance

Q1:	Did you open a business bank account?

○	When the business was already established
○	When the business started operations
○	Do not have business bank account

Q2:	The following questions ask you to identify the sources you have approached for capital and the amounts accepted over the last 12 months.

A)	**In the last 12 months, did you need to raise capital to fund your business?**

○	Yes	
○	No	

B)	What type of funding did you seek? *(select all that apply)*

☐	Personal savings
☐	Family or friends
☐	Business debt or loan capital from a financial institution (e.g. government banks, private banks, credit unions, etc.)
☐	Equity or investment capital from external investors (e.g. angel investors, venture capital, etc.)
☐	Personal loan (e.g. moneylenders, credit card loan, etc.)
☐	Other (e.g. grants, other businesses, etc.) *Please Specify:*……

C)	If you sought funding from an institution, what were the results of the application(s)? *(select all that apply and follow skip instructions for each response)*

☐	I have not yet heard back about my application	**→ Skip to Q4**
☐	I was approved and received capital	**→ Proceed to Q2-D)**
☐	I was approved but decided not to accept the capital	**→ Skip to Q2 – F)**
☐	The funders decided not to approve my application	**→ Skip to Q2-G)**

D)	What did you use the loan/funding for? *(select all that apply)*

☐	Finance asset conversion cycle (purchase of raw materials, work in process, finished goods, selling them, and collecting your money back from customers)
☐	Finance working capital (money available for day to day operations)
☐	Purchase fixed assets (e.g. equipment, machinery, vehicles, plant,…etc.)
☐	Staff Training and Coaching
☐	Finance a new project or a product's R&D
☐	To settle other debts
☐	Trading Purposes
☐	Other *(Please specify):*……

F)	If you were approved for funding but did not accept it, please explain why?

……
……
……
……

G)	If your funding request was denied, what was the main reason that the bank(s) or other lender(s) decided not to approve your application?

○	I did not have acceptable collateral/guarantee (this refers to property you must pledge to the bank or other lender that you would forfeit in the event you cannot repay the loan)
○	My business did not have enough revenues or profits

○	My sources of revenue were too concentrated (in other words, my business is too dependent on a small number of customers)
○	The industry my business in is too risky
○	I had a poor personal or business credit history
○	I had an inadequate business plan
○	I don't know
○	Another reason (*please specify*):……....

Q3:	If you indicated that you did not apply for funding from a financial institution, external investor or other source; please select and rank the reasons why you did not apply? *(select all that apply and rank them)*

☐	I did not understand how to apply
☐	I did not have a need —my business has sufficient funding at this time
☐	The application procedures are too complex
☐	The loan terms are unattractive (e.g. interest rates, size of loan, maturity of loan)
☐	The collateral/guarantee required was too large (this refers to property you must pledge to the bank or other lender that you would forfeit in the event you cannot repay the loan)
☐	I do not think my religion allows me to take/accept a loan
☐	Taking out a loan is too risky
☐	I did not think it would be approved
☐	A previous loan application was rejected
☐	Another reason *(Please Specify)*:……..……....

Q4:	A)	Do you face any difficulty in raising funds?

○	Yes	→ **Proceed to Q4-B)**
○	No	→ **Skip to Q5**

B)	Please indicate the reasons behind facing difficulty in raising funds: *(select all that apply)*

☐	SME perceptions of discrimination by financial institutions
☐	Male applicants are more likely to have their application approved
☐	Female applicants are more likely to have to provide collateral/ security

☐	Female applicants are more likely to have to provide guarantors
☐	Female applicants are more likely to have to incur higher interest rates

Q5:	To what degree is Access to Finance an obstacle to the current operations of your business?

○	No Obstacle
○	Minor Obstacle
○	Moderate Obstacle
○	Major Obstacle
○	Very Severe Obstacle

5. control variable:

Type of industry	
Age of the firm	
Current number of employees (firm size)	

A. Environmental Dynamism

1- Rate of product obsolescence	**1 to 5**
2- predictability of competitor's actions	**1 to 5**
3- predictability of demand and consumer tastes	**1 to 5**
4- Rate of technological change within the industry	**1 to 5**
5- How often the firm had to change its marketing practices	**1 to 5**

B. Environmental Munificence

1- Current profitability of the industry	**1 to 5**
2- projected long term (5 years or more) profitability of the industry	**1 to 5**
3- market growth rate in the industry over the last 3 years	**1 to 5**
4- projected long-term market growth rate (5 years or more) for the industry.	**1 to 5**

2- **Survey Questions**

1. General Information about the Interviewee and the company:

Title of the Business:	
Name	

Type of industry	
Are you a senior decision-maker of the business?	

In what year was the business founded	
How would you rate the government support for SMEs	1 to 5

2. Assessing Individual Entrepreneurship Orientation in the firm (Independent Variable):

- This scale is mentioned in detail in the instrument section.

3. Financial knowledge

1	Do you know about the Central Bank of Egypt-CBE initiative to provide loans to small enterprises with annual interest rate of only 5%?

○	Yes
○	No

4. The firm performance position (Dependent Variable)

A. sales

3- Degree of importance of the firm sales growth	**1 to 5**
4- Current level of Satisfaction with the firm sales growth	**1 to 5**

5	A)	In the past 12 months, what were your company's total annual revenues?

○	Less than 1 million EGP
○	1 million – 50 million EGP
○	51 million – 200 million EGP

B)	**How much did this revenue grow from last year?**

○	Declined
○	Stayed the same
○	Revenues grew by 1-10%
○	Revenues grew by 11-25%
○	Revenues grew by 26-50%
○	Revenues grew by more than 50%
○	I don’t know how to calculate Revenues

B)	**How much did this revenue grow in the last 3 years?**

○	Declined
○	Stayed the same
○	Revenues grew by 1-10%
○	Revenues grew by 11-25%
○	Revenues grew by 26-50%
○	Revenues grew by more than 50%
○	I don’t know how to calculate Revenues

B)	**How much do you expect this revenue to grow next year?**

○	Will decline
○	Will stay the same
○	Revenues will grow by 1-10%
○	Revenues will grow by 11-25%
○	Revenues will grow by 26-50%
○	Revenues will grow by more than 50%

○	I don’t know how to calculate Revenues

B)	**How much do you expect this revenue to grow in the coming 3 years?**

○	Will decline
○	Will stay the same
○	Revenues will grow by 1-10%
○	Revenues will grow by 11-25%
○	Revenues will grow by 26-50%
○	Revenues will grow by more than 50%
○	I don’t know how to calculate Revenues

B. Profit Margin

6	**A)**	**Is your business profitable?**

○	Yes
○	No

B)	What is your current profit margin range?

○	0 – 10%
○	11 – 25 %
○	26 – 50%
○	51 – 75 %
○	More than 75%

B)	How much did your profit margin grow from last year?

○	Declined
○	Stayed the same
○	Profit margin grew by 1-10%
○	Profit margin grew by 11-25%

○	Profit margin grew by 26-50%
○	Profit margin grew by more than 50%
○	I don’t know how to calculate profit margin

B)	How much did your profit margin grow from 3 years ago?

○	Declined
○	Stayed the same
○	Profit margin grew by 1-10%
○	Profit margin grew by 11-25%
○	Profit margin grew by 26-50%
○	Profit margin grew by more than 50%
○	I don’t know how to calculate profit margin

B)	How much will your profit margin grow next year?

○	Will decline
○	Will stay the same
○	Profit margin will grow by 1-10%
○	Profit margin will grow by 11-25%
○	Profit margin will grow by 26-50%
○	Profit margin will grow by more than 50%
○	I don’t know how to calculate profit margin

B)	How much will your profit margin grow in 3 years?

○	Will decline
○	Will stay the same
○	Profit margin will grow by 1-10%

○	Profit margin will grow by 11-25%
○	Profit margin will grow by 26-50%
○	Profit margin will grow by more than 50%
○	I don't know how to calculate profit margin

C. Employees

A)	In the past 12 months, how many permanent, full-time employees did your business have? (Permanent, full-time employees are defined as all employees that are employed for a term of one or more fiscal years and/or have a guaranteed renewal of their employment and that work a full shift)

○	Less than 10 employees
○	11 – 50 employees
○	51 – 100 employees
○	101 – 150 employees
○	151 – 200 employees
○	More than 200 employees

B)	How much did your employees grow from last year?

○	Declined
○	Stayed the same
○	Employees number grew by 1-10%
○	Employees number grew by 11-25%
○	Employees number grew by 26-50%
○	Employees number grew by more than 50%

B)	How much did your employees grow compared to 3 years ago?

○	Declined

○	Stayed the same
○	Employees number grew by 1-10%
○	Employees number grew by 11-25%
○	Employees number grew by 26-50%
○	Employees number grew by more than 50%

B)	How much will your employees grow in one year?

○	Will decline
○	Will stay the same
○	Employees number will grow by 1-10%
○	Employees number will grow by 11-25%
○	Employees number will grow by 26-50%
○	Employees number will grow by more than 50%

B)	How much will your employees grow in 3 years?

○	Will decline
○	Will stay the same
○	Employees number will grow by 1-10%
○	Employees number will grow by 11-25%
○	Employees number will grow by 26-50%
○	Employees number will grow by more than 50%

5. control variable:

A. Environmental Munificence

1- Current profitability of the industry	Low	Medium	High
2- projected long term (5 years or more) profitability of the industry	Low	Medium	High
3- market growth rate in the industry over the last 3 years	Low	Medium	High

4- projected long-term market growth rate (5 years or more) for the industry.	Low	Medium	High

B. Environmental Dynamism

1- Rate of product obsolescence	Low	Medium	High
2- predictability of competitor's actions	Low	Medium	High
3- predictability of demand and consumer tastes	Low	Medium	High
4- Rate of technological change within the industry	Low	Medium	High
5- How often the firm had to change its marketing practices	Low	Medium	High

3- Firms' portfolios

SME Type	Firm Code	Age	Industry	Annual revenues	Business profitable (Yes,No)	profit margin range	Number of employees
Micro	1	1	Food and beverage	Less than 1 million EGP	No	0 – 10%	Less than 10
S/M	2	5	Marketplace for construction & industrial materials	1 million – 50 million EGP	Yes	11 – 25 %	Less than 10
Micro	3	3	Fashion	Less than 1 million EGP	No	26 – 50%	Less than 10
Micro	4	6	Hand made	Less than 1 million EGP	Yes	0 – 10%	Less than 10
Micro	5	26	قخار	Less than 1 million EGP	Yes	11 – 25 %	Less than 10
Micro	6	0	Clothes and bags	Less than 1 million EGP	No	0 – 10%	Less than 10
Micro	7	3	Beauty and fashion	Less than 1 million EGP	Yes	11 – 25 %	Less than 10
Micro	8	6	Clothing	Less than 1 million EGP	No	26 – 50%	Less than 10

Micro	9	11	Handmade products (acc. - resin art - polymer clay art - home decore)	Less than 1 million EGP	Yes	0 – 10%	Less than 10
Micro	10	3	Fashion	Less than 1 million EGP	Yes	11 – 25 %	Less than 10
Micro	11	5	Food	Less than 1 million EGP	Yes	11 – 25 %	11 - 50 Employees
Micro	12	4	Textile	Less than 1 million EGP	Yes	26 – 50%	Less than 10
Micro	13	5	Handmade	Less than 1 million EGP	Yes	26 – 50%	Less than 10
Micro	14	4	Clothing	Less than 1 million EGP	Yes	0 – 10%	Less than 10
Micro	15	2	Fashion industry	Less than 1 million EGP	Yes	0 – 10%	Less than 10
Micro	16	4	Fashion	Less than 1 million EGP	Yes	11 – 25 %	Less than 10
Micro	17	2	Clothing	Less than 1 million EGP	Yes	0 – 10%	Less than 10
Micro	18	6	Clothing	Less than 1 million EGP	Yes	11 – 25 %	Less than 10
Micro	19	5	Clothing	Less than 1 million EGP	Yes	0 – 10%	Less than 10
Micro	20	8	Training	Less than 1 million EGP	Yes	11 – 25 %	11 - 50 Employees
S/M	21	16	Manufacturing	1 million – 50 million EGP	Yes	0 – 10%	51 - 100 Employees

S/M	22	4	Vet	1 million – 50 million EGP	No	26 – 50%	11 - 50 Employees
Micro	23	5	Food	Less than 1 million EGP	Yes	26 – 50%	Less than 10
S/M	24	5	Training	1 million – 50 million EGP	Yes	26 – 50%	11 - 50 Employees
S/M	25	4	Fintech	1 million – 50 million EGP	No	0 – 10%	11 - 50 Employees
S/M	26	27	Health	1 million – 50 million EGP	Yes	26 – 50%	11 - 50 Employees
S/M	27	5	Transportation	51 million – 200 million EGP	Yes	26 – 50%	More than 200
S/M	28	7	Fintech	1 million – 50 million EGP	No	26 – 50%	More than 200
Micro	29	7	Gaming	Less than 1 million EGP	Yes	26 – 50%	11 - 50 Employees
S/M	30	9	Recycling Tech	1 million – 50 million EGP	Yes	0 – 10%	11 - 50 Employees
S/M	31	20	Technology	1 million – 50 million EGP	Yes	11 – 25 %	11 - 50 Employees
Micro	32	19	Home Accessories	Less than 1 million EGP	Yes	11 – 25 %	11 - 50 Employees
Micro	33	20	Home Decroation	Less than 1 million EGP	Yes	11 – 25 %	51 - 100 Employees
Micro	34	10	handicraft	Less than 1 million EGP	Yes	11 – 25 %	11 - 50 Employees
Micro	35	8	handicraft	Less than 1 million EGP	Yes	11 – 25 %	11 - 50 Employees

Micro	36	6	handicraft	Less than 1 million EGP	No	0 – 10%	Less than 10
Micro	37	19	Handicraft	Less than 1 million EGP	Yes	0 – 10%	Less than 10
Micro	38	12	Handicraf	Less than 1 million EGP	No	0 – 10%	Less than 10
Micro	39	34	Handcraft	Less than 1 million EGP	No	11 – 25 %	Less than 10
Micro	40	5	Handicraft	Less than 1 million EGP	No	11 – 25 %	Less than 10
Micro	41	27	Handicraft	Less than 1 million EGP	Yes	11 – 25 %	11 - 50 Employees
Micro	42	6	Handicraft	Less than 1 million EGP	Yes	0 – 10%	Less than 10
S/M	43	21	IT	1 million – 50 million EGP	Yes	26 – 50%	11 - 50 Employees
S/M	44	2	Food	1 million – 50 million EGP	Yes	11 – 25 %	51 - 100 Employees
S/M	45	27	Manufacturing	1 million – 50 million EGP	Yes	0 – 10%	101 - 150 Employees
S/M	46	6	Clothes	1 million – 50 million EGP	Yes	26 – 50%	Less than 10
S/M	47	3	Technology	1 million – 50 million EGP	No	11 – 25 %	11 - 50 Employees
S/M	48	12	Education	1 million – 50 million EGP	Yes	11 – 25 %	11 - 50 Employees
S/M	49	7	Education	1 million – 50 million EGP	Yes	11 – 25 %	101 - 150 Employees

S/M	50	29	Manufacture	51 million – 200 million EGP	Yes	11 – 25 %	More than 200
S/M	51	4	Furniture	1 million – 50 million EGP	Yes	0 – 10%	11 - 50 Employees
S/M	52	9	Training	1 million – 50 million EGP	Yes	11 – 25 %	11 - 50 Employees
S/M	53	10	Fashion	1 million – 50 million EGP	Yes	11 – 25 %	11 - 50 Employees
S/M	54	6	Furniture	51 million – 200 million EGP	Yes	0 – 10%	101 - 150 Employees
S/M	55	3	Sportswear	1 million – 50 million EGP	Yes	11 – 25 %	11 - 50 Employees
Micro	56	15	Home decorations	Less than 1 million EGP	Yes	26 – 50%	11 - 50 Employees
Micro	57	3	Fashion	Less than 1 million EGP	Yes	26 – 50%	Less than 10
Micro	58	6	Fashion - Hand Made Accessories	Less than 1 million EGP	Yes	51 - 75٪	51 - 100 Employees
Micro	59	4	Home Decorations	Less than 1 million EGP	Yes	26 – 50%	Less than 10
Micro	60	7	Fashion	Less than 1 million EGP	Yes	26 – 50%	Less than 10
Micro	61		ملابس تراثيه	Less than 1 million EGP	Yes	11 – 25 %	Less than 10
Micro	62		تصميم أزياء	Less than 1 million EGP	Yes	11 – 25 %	Less than 10
Micro	63	2	Textile & home accessories	Less than 1 million EGP	Yes	26 – 50%	Less than 10

Micro	64		الخزف	Less than 1 million EGP	Yes	26 – 50%	Less than 10
Micro	65	5	المنتجات اليدوية من الخزف	Less than 1 million EGP	Yes	11 – 25 %	Less than 10
Micro	66	4	تصنيع النسيج اليدوى	Less than 1 million EGP	Yes	26 – 50%	11 - 50 Employees
S/M	67	1	التكنولوجيا الخضراء والطاقة النظافية	1 million – 50 million EGP	Yes	26 – 50%	51 - 100 Employees
Micro	68		مشغل مشغولات يدوية جلود واقمشة خيامية اكسسورات شنط واحذية عبايات وبلوزات وشابوهات تلى وحزمات وإعادة تدوير مشغل متكامل	Less than 1 million EGP	Yes	26 – 50%	101 - 150 Employees
Micro	69	1	تصنيع الحُلى	Less than 1 million EGP	Yes	11 – 25 %	Less than 10
Micro	70	3	صباغة المنسوجات	Less than 1 million EGP	Yes	11 – 25 %	Less than 10
Micro	71	7	Accessories and Silver	Less than 1 million EGP	Yes	26 – 50%	Less than 10
Micro	72	42	Crochet	Less than 1 million EGP	Yes	11 – 25 %	Less than 10
Micro	73	11	أكسسوارات فضه ونحاس وأحجار كريمة	Less than 1 million EGP	Yes	11 – 25 %	Less than 10
Micro	74	8	صناعه الادوات المنزليه من الاخشاب الطبيعيه	Less than 1 million EGP	Yes	51 - 75٪	11 - 50 Employees
Micro	75		صناعات سيوه الحرفيه	Less than 1 million EGP	Yes	0 – 10%	Less than 10
S/M	76	5	دواجن	1 million – 50 million EGP	Yes	11 – 25 %	11 - 50 Employees

S/M	77		سجاد يدوي، موبيليا، منتجات خرسانية	1 million – 50 million EGP	Yes	26 – 50%	Less than 10
S/M	78	5	Leather Trading	1 million – 50 million EGP	Yes	26 – 50%	more than 200 Employees
Micro	79		Leather hand made	Less than 1 million EGP	Yes	0 – 10%	Less than 10
S/M	80	3	اغذيه ومشروبات	1 million – 50 million EGP	No	0 – 10%	11 - 50 Employees
S/M	81		General trading	51 million – 200 million EGP	Yes	26 – 50%	11 - 50 Employees
Micro	82	15	ادارت المبانى	Less than 1 million EGP	Yes	0 – 10%	11 - 50 Employees
S/M	83	3	مستحضرات التجميل	1 million – 50 million EGP	No	0 – 10%	11 - 50 Employees
Micro	84	6	صناعت يدوية " كروشية "	Less than 1 million EGP	No	11 – 25 %	Less than 10
Micro	85		صناعة السبح والمشغولات الفضية	Less than 1 million EGP	Yes	11 – 25 %	Less than 10
Micro	86	4	Home accessories	Less than 1 million EGP	No	0 – 10%	Less than 10
Micro	87	5	تصنيع و تسويق الادوية البشرية و مستحضرات التجميل	Less than 1 million EGP	Yes	0 – 10%	11 - 50 Employees
Micro	88	6	صناعة الحلى اليدوية	Less than 1 million EGP	Yes	26 – 50%	Less than 10
Micro	89	7	منتجات بامبو	Less than 1 million EGP	Yes	26 – 50%	Less than 10
Micro	90		عبوات البلاستيك	Less than 1 million EGP	No	0 – 10%	51 - 100 Employees

4- SPSS Results:

Revenue Growth Past 1 year

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.348[a]	.121	.091	1.552

a. Predictors: (Constant), RiskProjects, ChangesIntensity, Innovation1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.153	.752		.203	.840
	Innovation1	-.280	.136	-.221	-2.052	.043
	ChangesIntensity	.239	.135	.188	1.778	.079
	RiskProjects	.459	.148	.333	3.104	.003

a. Dependent Variable: RevGrowthPast1Yr

Revenue Growth Past 3 years

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.319[a]	.102	.081	1.633

a. Predictors: (Constant), ProactiveAdaptive, Innovation1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.699	.578		2.939	.004
	Innovation1	-.270	.136	-.204	-1.988	.050
	ProactiveAdaptive	.332	.123	.277	2.694	.008

a. Dependent Variable: RevGrowthPast3Yrs

Revenues Growth Next 1 Year

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.335[a]	.112	.081	1.373

a. Predictors: (Constant), RiskUncertainty, RiskProjects, RiskDecisions

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.107	.520		2.130	.036
	RiskProjects	.342	.147	.282	2.321	.023
	RiskDecisions	.277	.155	.221	1.788	.077
	RiskUncertainty	-.271	.155	-.229	-1.753	.083

a. Dependent Variable: RevGrowthNext1Yr

Revenues Growth Next 3 Years

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.312[a]	.097	.076	1.299

a. Predictors: (Constant), RiskProjects, ProactiveAdaptive

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.296	.497		2.609	.011
	ProactiveAdaptive	.158	.097	.166	1.622	.108
	RiskProjects	.284	.117	.248	2.425	.017

a. Dependent Variable: RevGrowthNext3Yrs

PM Growth Past 1 Year

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.458[a]	.210	.171	1.230

a. Predictors: (Constant), RiskProjects, ProactiveAdaptive, ChangesIntensity, Innovation1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.596	.645		-.924	.358

	Innovation1	-.343	.112	-.320	-3.059	.003
	ChangesIntensity	.253	.108	.238	2.336	.022
	ProactiveAdaptive	.227	.095	.237	2.401	.019
	RiskProjects	.347	.120	.298	2.887	.005

a. Dependent Variable: PMPast1Yr

PM Growth Past 3 Years

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.390[a]	.152	.121	1.369

a. Predictors: (Constant), RiskProjects, ChangesIntensity, Innovation1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.324	.673		.481	.632
	Innovation1	-.376	.124	-.324	-3.020	.003

	ChangesIntensity	.296	.120	.258	2.457	.016
	RiskProjects	.343	.133	.272	2.569	.012

a. Dependent Variable: PMPast3Yrs

PM Growth Next 1 Year

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.309[a]	.095	.062	1.055

a. Predictors: (Constant), RiskUncertainty, Innovation1, RiskProjects

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.733	.451		3.845	<.001
	Innovation1	-.163	.093	-.190	-1.754	.083
	RiskProjects	.306	.120	.327	2.548	.013
	RiskUncertainty	-.205	.117	-.221	-1.748	.084

a. Dependent Variable: PMNext1Yr

PM Growth Next 3 Years

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.419[a]	.176	.134	1.020

a. Predictors: (Constant), RiskUncertainty, NewProducts, Innovation1, RiskProjects

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.549	.563		2.749	.007
	Innovation1	-.172	.090	-.200	-1.906	.060
	NewProducts	.165	.091	.184	1.811	.074
	RiskProjects	.385	.116	.412	3.312	.001
	RiskUncertainty	-.298	.116	-.315	-2.570	.012

a. Dependent Variable: PMNext3Yrs

Employment Growth Past 1 Year

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.303[a]	.092	.071	1.380

a. Predictors: (Constant), RiskProjects, ChangesIntensity

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-1.329	.644		-2.062	.042
	ChangesIntensity	.244	.116	.218	2.104	.038
	RiskProjects	.302	.126	.249	2.408	.018

a. Dependent Variable: EmplGrowthPastYr

Employment Growth Past 3 Years

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.273[a]	.074	.053	1.524

a. Predictors: (Constant), RiskProjects, NewProducts

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-1.021	.740		-1.379	.171
	NewProducts	.229	.133	.177	1.715	.090
	RiskProjects	.293	.137	.221	2.135	.036

a. Dependent Variable: EmplGrowthPast3Yrs

Employment Growth Next 1 Year

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.354[a]	.125	.094	1.068

a. Predictors: (Constant), RiskProjects, ProactiveNewProducts, Innovation1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.065	.576		-.112	.911
	Innovation1	-.200	.092	-.230	-2.171	.033
	ProactiveNewProducts	.202	.114	.181	1.763	.081
	RiskProjects	.270	.099	.284	2.722	.008

a. Dependent Variable: EmplGrowthNextYr

Employment Growth Next 3 Years

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.284[a]	.081	.070	1.152

a. Predictors: (Constant), RiskProjects

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.

1	(Constant)	.634	.375		1.688	.095
	RiskProjects	.288	.103	.284	2.783	.007

a. Dependent Variable: EmplGrowthNext3Yrs

Comparisons between Micro and small firms

Group Statistics

	SME Type	N	Mean	Std. Deviation	Std. Error Mean
Business Age	Micro	52	8.52	8.419	1.168
	SM	28	9.21	8.185	1.547
GovSupport	Micro	60	2.85	1.313	.169
	SM	30	2.63	1.098	.200
Innovation1	Micro	60	**3.47**	1.308	.169
	SM	30	**3.23**	1.251	.228
NewProducts	Micro	60	4.02	1.097	.142
	SM	30	3.53	1.383	.252
ChangesIntensity	Micro	60	3.43	1.267	.164
	SM	30	3.27	1.311	.239
ProactiveInitiative	Micro	60	3.67	.933	.120
	SM	30	4.00	1.017	.186
	Micro	60	3.98	1.000	.129

ProactiveNewProducts	SM	30	4.17	1.020	.186
ProactiveAdaptive	Micro	60	2.97	1.327	.171
	SM	30	3.27	1.596	.291
RiskProjects	Micro	60	3.28	1.209	.156
	SM	30	3.73	1.081	.197
RiskDecisions	Micro	60	2.95	1.156	.149
	SM	30	3.60	1.003	.183
RiskUncertainty	Micro	60	3.12	1.223	.158
	SM	30	3.37	1.189	.217
ImpSalesGrowth	Micro	60	4.48	.813	.105
	SM	30	4.77	.430	.079
SatSalesGrowth	Micro	60	3.13	1.200	.155
	SM	30	3.20	1.031	.188
ImpXSat	Micro	60	14.12	5.975	.771
	SM	30	15.20	5.129	.936
PMPast1Yr	Micro	57	.84	1.373	.182
	SM	30	1.27	1.285	.235
PMPast3Yrs	Micro	57	.95	1.457	.193
	SM	30	1.77	1.331	.243
PMNext1Yr	Micro	56	1.55	1.094	.146
	SM	30	1.63	1.098	.200
PMNext3Yrs	Micro	55	1.96	1.105	.149
	SM	30	1.97	1.098	.200
EmplGrowthPastYr	Micro	60	.15	1.162	.150
	SM	30	1.30	1.622	.296

EmplGrowthPast3Yrs	Micro	60	.47	1.396	.180
	SM	30	1.67	1.605	.293
EmplGrowthNextYr	Micro	60	.72	1.043	.135
	SM	30	1.57	1.073	.196
EmplGrowthNext3Yrs	Micro	60	1.28	1.151	.149
	SM	30	2.30	.988	.180
RevGrowthPast1Yr	Micro	60	1.23	1.691	.218
	SM	30	2.30	1.236	.226
RevGrowthPast3Yrs	Micro	60	1.42	1.759	.227
	SM	30	2.57	1.305	.238
RevGrowthNext1Yr	Micro	60	2.10	1.423	.184
	SM	30	2.67	1.398	.255
RevGrowthNext3Yrs	Micro	60	2.75	1.348	.174
	SM	30	2.77	1.382	.252