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Analyzing Success Factors of Small and Medium Enterprises (SMEs): A Study in Iranian Context

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ABSTRACT

Purpose: This study aims to identify and analyze the success factors of small and medium-sized enterprises (SMEs) following the lines of dynamic capabilities and resources-based views.

Methodology: To achieve this objective, the multiple case study method was followed, where 20 SMEs/cases in Iran were selected. For this purpose, the statistical population of the research is the managers, experts and experts of small and medium-sized enterprises. For determining the sample size, a targeted sampling method has been used. The reliability of the questionnaire was also confirmed by Cronbach's Alpha (α = 0.971) and its validity was confirmed by experts and experts. Finally, ISM technique used to analyze information.

Findings: From a content analysis of the interviews conducted to the owner-managers of these SMEs, the most important success factors identified were: 1) Business environment, 2) Capital availability, 3) Business support, 4) Leadership and Management, 5) Business characteristics, 6) Individual factors, 7) Government Support, 8) Infrastructure, 9) Human Resource Management and 10) Networks/Partnerships.

Originality/Value: Entrepreneurship and SMEs are integral to economic and social development and regeneration. It is recognized that, SMEs are the engine of economic growth through employment generation, contribution to GDP, technological innovations, and other aspects of economic and social development.

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1. Introduction

The creation and development of small and medium-sized enterprises (SMEs) represents one of the main objectives of the contemporary economy [1]. It is a complex challenge that includes a high number of directly interested parties, whether public or private, meaning that SMEs play a vital role in the economic development of a country, being visualized as an important axis for the promotion of a country's economic growth, as they are generators of wealth and employment [2]. Additionally, SMEs are endowed with flexibility, understood as one of their fundamental characteristics, which provides an easier adjustment to the volatility of supply and demand in the market [3, 4]. The relevance of these companies for the economic development of countries was also pointed out by Pedauga, Saez, & Delgado-marquez, when they argued that their importance for the business fabric is a recurrent topic in academia, due to the fact that they have constituted a component of the strategic development of many countries [5]. SMEs are basic contributors to the global economy and the knowledge advantage is critical for these firms, while innovation and new product development [6, 7], in some sectors, are efficient ways to gain competitive advantage in the market. In addition, the factors that affect the business size of SMEs, such as the characteristics of the entrepreneur, management strategies and the influence of the external environment, constitute elements for the success or failure of a business [8]. In this paper, Key Success Factors of Small and Medium Scale Enterprises are Business environment, Capital availability, Business support, Leadership and Management, Business characteristics, Individual factors, Government Support, Infrastructure, Human resource management and Networks/partnerships.

2. Literature Review

Scholars have long been debating which factors affect SME upgrading. Their opinions can be divided into four groups, each related to one of the layers of factors that influence the entrepreneur's behavior:

1. Some believe that mainly the entrepreneur's characteristics determine a firm's upgrading potential [9].
2. Others consider the characteristics of the firm itself to be much more important [11].
3. Yet another group of scholars believes that the upgrading potential of SMEs is mainly determined by their integration into horizontal and vertical linkage systems [11].
4. A fourth group emphasizes the role that the business framework plays in SME upgrading [12]. Figure (1) illustrates these four layers of factors.

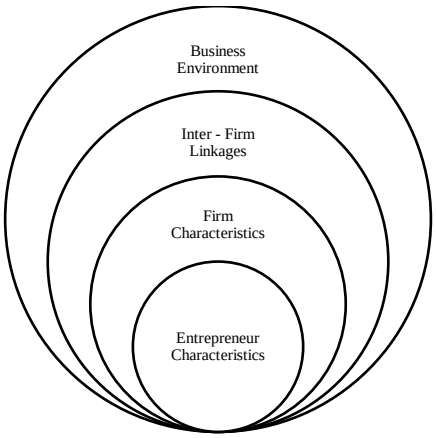

Figure 1. The four layers of factors that determine SMEs upgrading

There has been a series of previous studies aimed at detecting the critical success factors of SMEs. For instance, [13] considered CSFs of small business in China and the USA, and found that small business in China are subject to several success factors related to marketing, competitive forces, industry trends, location, capital availability, and owner experience. Their study exhibited similarities between small business in China and the USA, except for the business-financing factor. In case of SMEs in Malaysia, [14] investigated the CSFs and he identified that managerial skills, government support, training, access to capital, marketing, customer service, competitive prices, human resource management, social skills, location, family and friends support are the key success factors. For a developing country, [15] identify the CSFs for SMEs, such as leadership and management, intellectual capital, organizational innovation, entrepreneurial characteristics and competence, human resource, motivation and market orientation. In addition, [16] classified all factors that attribute to SMEs success into two groups: Individual factors and non-individual factors. Individual factors cover entrepreneur characteristics, such as owner and manager skills, personal characteristics, gender and motivation, while non-individual factors refer to internal (marketing, ability to compete, technology, innovation) and external factors (limited finance, market conditions, intensive competition).

In their mixed-method research paper, [5] investigated factors that affect small business success using data from Tunisian micro-enterprises and concluded that innovation activities of micro-enterprises significantly mediated the effect of human, social, and financial capital on small business success. Moreover, [17] categorized the CSFs for SMEs into three factors: Entrepreneurial factors (owner age, gender, education level, experience and managerial skills), enterprise factors (business age and size, business networks, financial resources, customer relationship management; human capital, marketing and strategic planning) and business environment factors (political, economic, socio-cultural, technological, legal, and ecological environments). [6] investigated factors that affect small business success and concluded that SMEs are oriented towards success, although some evolution is still needed in the way they are managed, where the transition from a “domestic/entrepreneurial” management to a “professional” management and a greater focus on the rarity of their resources and on the dynamic capabilities of their human capital stand out. Conclusions, implications and a future research agenda are also outlined.

The importance of theoretical research to provide a conceptual framework for the success factors of SMEs to help investors, entrepreneurs and small business finance organizations and government institutions to adopt a strategy that contributes to enhancing the success of small projects and protecting them from managerial problems and financial failure, as well as directing the local community institutions to support these projects [18]. The research is also important in presenting a model that explains the impact of critical success factors of SMEs in Iran, thus providing a model adapted to the Iran environment, which may serve as a starting point for conducting further researches.

3. Data and Methodology

The study began with an in-depth review of existing studies. The choice of research approach was the triangulation method where paper survey questionnaires were administered to SMEs using convenience sampling method to collect data from a total of 20 owners of SMEs located in Kumasi and Tamale in the Ashanti and Northern Regions of Ghana respectively. In the questionnaire, questions asked included: Personal Information where socio demographic information about entrepreneurs were asked; Business Information which inquired about the general characteristics of the firm; Macro-economic factors to understand the macro-economic factors and finally the entrepreneur's own measure of success was explored. Descriptive analysis was employed in analyzing the data, followed by a follow up for validation from some respondents through interviews and focus group discussions to buttress the results so that the results can be classified as credible. Finally, ISM technique used to analyze information [19, 20].

ISM is an interactive learning process. In this technique, a set of different directly and indirectly related elements are structured into a comprehensive systematic model. The various steps involved in ISM modeling are as follows:

Step 1: Structural Self-Interaction Matrix (SSIM)
Step 2: Reachability Matrix
Step 3: Level partitions
Step 4: Digraph
Step 5: ISM Model

4. Results and Discussion

Step 1: Structural Self-Interaction Matrix (SSIM)

Keeping in mind the contextual relationship for each factor and the existence of a relationship between any two factors (*i* and *j*), the associated direction of the relationship is questioned. The following four symbols are used to denote the direction of relationship between two factors (*i* and *j*): (a) *V* for the relation from factor *i* to factor *j* (i.e., factor *i* will influence factor *j*) (b) *A* for the relation from factor *j* to factor *i* (i.e., factor *i* will be influenced by factor *j*) (c) *X* for both direction relations (i.e., factors *i* and *j* will influence each other) (d) O for no relation between the factors (i.e., barriers *i* and *j* are unrelated). Based on the contextual relationships, the SSIM is developed. To obtain consensus, the SSIM should be further discussed by a group of experts.

Table 1. Structural Self-Interaction Matrix

Components	Leadership	Business characteristics	Human resource management	Business environment	Infrastructure	Individual factors	Capital availability	Government Support	Networks/partnerships	Business support
Leadership	1	0	0	0	0	0	0	0	0	0
Business characteristics	1	1	1	1	0	1	0	0	0	0
Human resource management	0	1	1	1	0	1	1	0	0	0
Business environment	0	0	0	1	0	1	0	0	1	0
Infrastructure	0	1	0	0	1	1	0	0	0	0
Individual factors	0	0	0	1	0	1	0	0	0	0
Capital availability	0	0	1	1	0	1	1	1	0	0
Government Support	0	0	0	0	0	0	1	1	1	0
Networks/partnerships	0	0	0	0	0	0	0	0	1	0
Business support	0	1	0	0	0	1	0	0	1	1

Step 2: Reachability Matrix

The next step in ISM approach is to develop an initial reachability matrix from SSIM. For this, SSIM is converted into the initial reachability matrix by substituting the four symbols (i.e., V, A, X or O) of SSIM by 1s or 0s in the initial reachability matrix. The rules for this substitution are as follows: (a) If the (*i*, *j*) entry in the SSIM is V, then the (*i*, *j*) entry in the reachability matrix becomes 1 and the (*j*, *i*) entry becomes 0. (b) If the (*i*, *j*) entry in the SSIM is A, then the (*i*, *j*) entry in the matrix becomes 0 and the (*j*, *i*) entry becomes 1. (c) If the (*i*, *j*) entry in the SSIM is X, then the (*i*, *j*) entry in the matrix becomes 1 and the (*j*, *i*) entry also becomes 1. (d) If the (*i*, *j*) entry in the SSIM is O, then the (*i*, *j*) entry in the matrix becomes 0 and the (*j*, *i*) entry also becomes 0. Following these rules, the initial reachability matrix is prepared. 1* entries are included to incorporate transitivity to fill the gap, if any, in the opinion collected during development of structural self-instructional matrix. After incorporating the transitivity concept as described above, the final reachability matrix is obtained.

Table 2. Reachability Matrix

Components	Leadership	Business characteristics	Human resource management	Business environment	Infrastructure	Individual factors	Capital availability	Government Support	Networks/partnerships	Business support
Leadership	1	0	0	0	0	0	0	0	0	0
Business characteristics	1	1	1	1	0	1	1*	1*	1*	0
Human resource management	1*	1	1	1	0	1	1	1	1*	0
Business environment	1	0	0	1	0	1	0	0	1	0
Infrastructure	1	1	1*	1*	1	1	1*	1*	1*	0
Individual factors	0	0	0	1	0	1	0	0	1*	0
Capital availability	1*	1*	1	1	0	1	1	1	1*	0
Government Support	1*	1*	1	1*	0	1*	1	1	1	0
Networks/partnerships	0	0	0	0	0	0	0	0	1	0
Business support	1*	1	1*	1*	0	1	1*	1*	1	1

Step 3: Level partitions

From the final reachability matrix, for each factor, reachability set and antecedent sets are derived. The reachability set consists of the factor itself and the other factor that it may impact, whereas the antecedent set consists of the factor itself and the other factor that may impact it. Thereafter, the intersection of these sets is derived for all the factors and levels of different factor are determined. The factors for which the reachability and the intersection sets are the same occupy the top level in the ISM hierarchy.

Table 3. Level partitions

Level	Intersection set	Set Reachability	Antecedent Set	Components
1	1	1	10,8,7,5,4,3,2,1	Leadership (F1)
3	8,7,3,2	9,8,7,6,4,3,2,1	10,8,7,5,3,2	Business characteristics (F2)
3	8,7,3,2	9,8,7,6,4,3,2,1	10,8,7,5,3,2	Human Resource Management (F3)
2	6,4	9,6,4	10,8,7,6,5,4,3,2	Business environment (F4)
4	5	9,8,7,6,5,4,3,2,1	5	Infrastructure (F5)
2	6,4	9,6,4	10,8,7,6,5,4,3,2	Individual factors (F6)
3	8,7,3,2	9,8,7,6,4,3,2,1	10,8,7,5,3,2	Capital availability (F7)
3	8,7,3,2	9,8,7,6,4,3,2,1	10,8,7,5,3,2	Government Support (F8)
1	9	9	10,9,8,7,6,5,4,3,2	Networks/partnerships (F9)
4	10	10,9,8,7,6,4,3,2,1	10	Business support (F10)

Step 4: MICMAC Analysis

MICMAC is used to examine the strength of the relationship between driving power and dependence power of seismic soil liquefaction factors. The soil liquefaction factors have been categorized into four clusters based on their driving and dependence power.

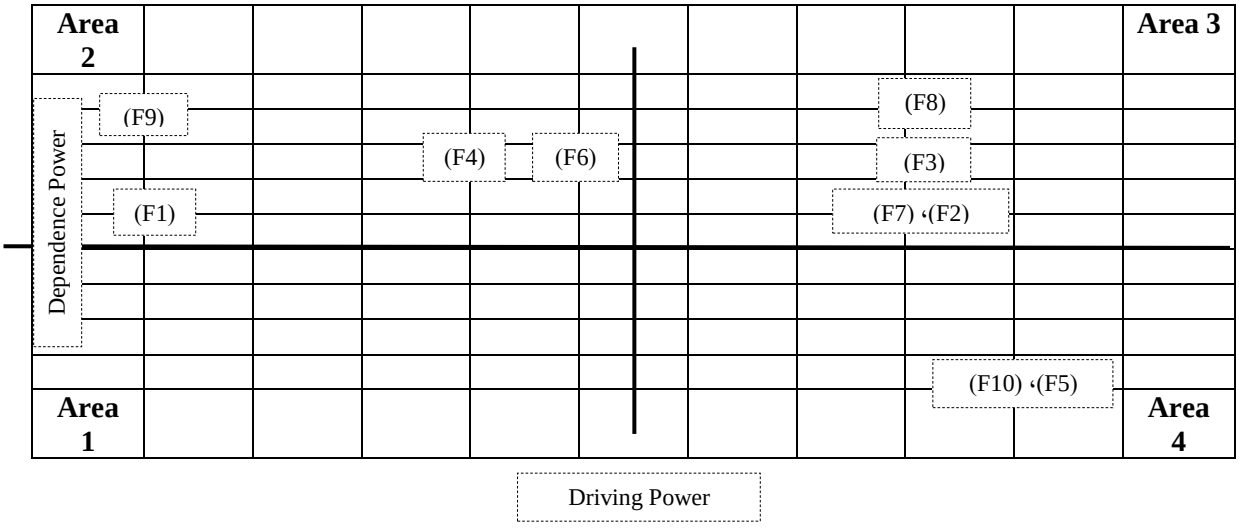

Figure 2. MICMAC Analysis

Step 5: ISM Model

Digraph is converted into an ISM model by replacing nodes of the factors with statements. From the conical form of reachability matrix, the preliminary digraph including transitive links is obtained. It is generated by nodes and lines of edges. After removing the indirect links, a final digraph is developed.

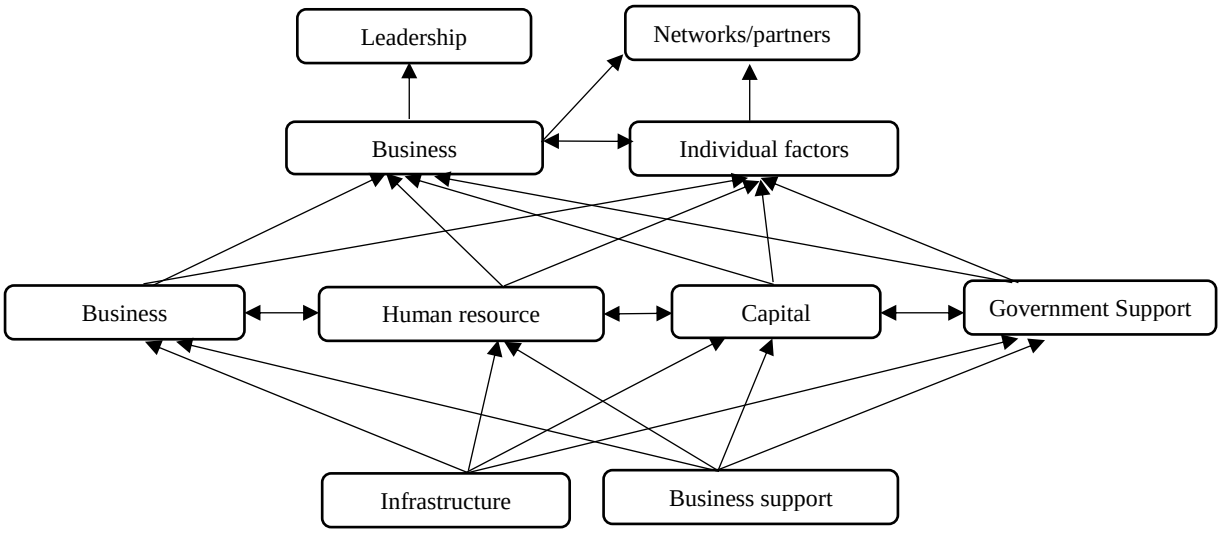

Figure 3. ISM Model

SMEs are an important channel for the flow of knowledge, as well as having the ability to transform new ideas into new Businesses. Therefore, a challenge for them is the implementation of a strategy which ensures the overall increase of their innovation capacity and growth factors, thus ensuring the sustainability of their competitive advantage. In short, the strategy defined by SMEs should include alternative scenarios based on the key success factors of each one, as well as take into account the changes in their environment. Most SME managers measure the success of their companies by business growth and financial performance, and these constructs are the main motivators for business continuity. However, this motivation will weaken in the long run if they do not verify such success. On the other hand, the absence of this success may be associated with poor strategic planning and lack of managerial skills of SME managers. This influence may be more important in SMEs, where the owner-manager has a greater impact on their employees and firm-level decisions.

5. Concluding Remarks

The present study examines the success factors of small and medium enterprises in Iran. For this purpose, based on the information obtained from the theoretical literature of research and interviews with managers and experts of small and medium enterprises, to identify the components affecting the development of small and medium enterprises in Iran and then using the opinion Experts and consultants, 10 main components were selected for these factors. In the next step, using ISM technique, cause-effect relationships were determined. The most important success factors identified were:

1) Business environment
2) Capital availability
3) Business support
4) Leadership and Management
5) Business characteristics
6) Individual factors
7) Government Support
8) Infrastructure
9) Human Resource Management and

10) Networks/Partnerships

It is important to note that in order to provide a model of factors affecting the small and medium enterprises, it is necessary to accurately determine the relationships between variables and their leveling. In this regard, the method of structural-interpretive equations has been used. The results show that Business environment, Leadership, Networks/partnerships and Individual factors are among the dependent variables. Also, Business characteristics, Human resource management, Capital availability and Government Support are among the link variables and finally Infrastructure and Business support are also in the group of penetrating variables. They have high penetration power and weak dependence.

Conflicts of Interest

No potential conflict of interest was reported by the authors.

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