



The Relationship between Entrepreneurial Differentiation and Promoting Manufacturing Strategies of Sporting Goods Manufacturers-The Mediating Role of the Fear of Failure

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ABSTRACT

Purpose: Today, with SMEs' development, entrepreneurs' decision-making is unique in promoting the manufacturing strategy. This study investigated the relationship between entrepreneurial differentiation and fear of failure in promoting SMEs' manufacturing strategies of Sporting Goods Manufacturers.

Methodology: Regarding purpose, this study is applied research, and methodologically, it is correlational type. The research population consists of Sporting Goods Manufacturers. According to the statistics, there are 995 companies. Based on Morgan's table, the sample size was 277 firms. The questionnaires used in this study included the differentiation questionnaire developed by Skowron and Friedlander (1998), the fear of failure questionnaire adapted from Cacciotti et al. (2016), and a researcher-made manufacturing strategy questionnaire. Relevant industry experts and professors confirmed the validity of this questionnaire. Structural equation modeling was used for data analysis through SmartPLS software.

Findings: The results showed that internal and external factors affecting entrepreneurs' fear of failure could promote the manufacturing strategy by 59.2% ($R^2 = 0.592$). On the other hand, entrepreneurial differentiation could also affect the promotion of the manufacturing industry by 52% ($R^2 = 0.520$).

Originality: Although much research was done on entrepreneurship and manufacturing strategy, little was done on entrepreneurs' differentiation and fear of failure. Entrepreneurs can be among the primary beneficiaries of this research. Corporate executives and research organizations can also use research findings to plan the manufacturing industry and entrepreneurial initiatives and manage strategy and entrepreneurship.

Keywords

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Economic Development
Manufacturing Strategies
Risk Taking
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1. Introduction

Manufacturing strategy is a sequence of decisions that enables entrepreneurs of small and medium-sized enterprises (SMEs). It makes the right structural and infrastructural choices for business development. Today, with the development of SMEs, entrepreneurial decision-making has a special place in promoting the manufacturing strategy. Studies show that these industries affect economic development through entrepreneurship and innovation. As innovation and sustainable employment actors, SME entrepreneurs' behavior plays a unique role in the future development of economic activities, which requires risk-taking and the courage of an entrepreneur to take advantage of future opportunities (Mohammadi Eliassy & Notash, 2011).

Many small industries' decisions depend on entrepreneurs' personality traits. Fear of failure and differentiation are the behavioral and personality traits of entrepreneurs. Entrepreneurs' fear of failure as a deterrent and negative factor hinders the development of these industries and sometimes leads to loss of competitiveness with others and their failure. To be successful, SME entrepreneurs must always face the risks that sometimes come at a high cost to take these risks. Therefore, there is a fear in entrepreneurs of the unattainability of goals and failure in their work. Entrepreneurial fear of failure is an emotional state that can originate from two main parts, namely internal and external factors. It can be a significant obstacle to promoting manufacturing strategies in SMEs. Differentiation, another behavioral and personality trait of entrepreneurs, enhances an individual's autonomy and responsibility. Differentiation is a continuous process that can be examined in two parts: intra- and interpersonal. In the intrapersonal part, differentiation deals with a person's ability to balance emotions and thoughts. In another (interpersonal) part, differentiation refers to gaining experience without compromising a sense of personal autonomy. Entrepreneurs with higher levels of differentiation are less emotionally reactive, less emotionally fused with others, less likely to engage in the emotional cutoff, and more able to take personal positions than less differentiated entrepreneurs (Bowen, 1978). Recognition is a way of understanding the interdependence of the differentiation concept. People who spend most of their time maintaining relationships with others and making important decisions based on avoiding conflicts and what makes their lives fluctuate have a low level of differentiation (Gibson & Donigian, 1993).

The theoretical and empirical focus on the consequences of adverse entrepreneurial effects requires new research to analyze the antecedents of entrepreneurs' adverse effects beyond business failure and explain how entrepreneurial activities might influence the development of negative affective states (Stroe et al., 2020). The present study seeks to identify this research gap in the literature by responding to calls for research on the negative affective antecedents of entrepreneurship. In this study, researchers are trying to answer the question: What is the relationship between the variables of entrepreneurial differentiation and fear of failure in promoting manufacturing strategies of Sporting Goods Manufacturers? According to previous studies, these variables have not been studied concerning each other. Although much research was done on entrepreneurship and manufacturing strategy, little was done on entrepreneurial differentiation and fear of failure. Less attention was also paid to entrepreneurs' behavioral and personality traits.

2. Theoretical background

According to [Bowen \(1978\)](#), differentiation refers to individuals' ability to differentiate themselves from their family emotionally and logically. Bowen points to the two biological forces of cohabitation and separation. The balance that a person establishes when alone and living together is called differentiation, and the result is a balance between autonomy and constant communication with individuals ([Bowen, 1978](#)). Entrepreneurs with high and low differentiation have some characteristics as follows: Entrepreneurs with low differentiation react emotionally to others' behavior, devoting most of their energy to expression, experience, and emotion, while entrepreneurs with high differentiation may experience intense emotion, but their feeling does not weaken, and their reaction is controlled. When personal experiences or relationships are very stressful, entrepreneurs with little differentiation become emotionally distant from others, while entrepreneurs with little differentiation do not become emotionally detached from others. Such entrepreneurs have a strong identity. Entrepreneurs with little differentiation get confused when communicating with others. Entrepreneurs with little differentiation get confused when communicating with others, while entrepreneurs with high differentiation can maintain their self-definition. Undifferentiated entrepreneurs are emotionally dependent on others and can hardly think and act independently, but highly differentiated entrepreneurs are their leaders, have their own opinions and emotions, and do not challenge others' expectations ([Skowron & Friedlander, 1998](#); [Tuason & Friedlander, 2000](#)).

The history of the entrepreneurship concept dates back to two hundred years ago. Richard Cantillon first coined entrepreneurship. According to Joseph Schumpeter, entrepreneurship is a significant driver of economic development and the engine of development. The primary role of the entrepreneur is to realize new combinations or innovations, ensuring economic change. This famous Austrian economist considered the main characteristic of an entrepreneur to be "innovation". He defined an entrepreneur's work as "creative destruction" ([Deljoyshahir, 2009](#)). Criticizing, analyzing, and identifying entrepreneurship failure and success factors are necessary for industries' growth, creativity, and entrepreneurship. These critiques are constructive in preparing potential entrepreneurs with a higher probability of success, preventing an increase in apathy, absurdity, and negative beliefs, and contributing to the greater effectiveness of government support in this area. According to Ginsberg, given the importance and necessity of entrepreneurship, statistics on the failure of entrepreneurs show that only 20% of established businesses have been operating for more than three years. Previous studies have examined the terms "disappearance," "closure", "exit", and "failure". When a business is faced with failure, acquisition by another enterprise, or a merger with another enterprise, it is referred to as disappearance, and disappearance can even be the result of arbitrary closure by business owners ([Cardozo & Borchert, 2004](#)). Entrepreneurial fear of failure has been studied in two dimensions of internal and external factors, known as significant barriers to business development.

Hypothesis 1: There is a significant relationship between entrepreneurial differentiation and fear of failure.

According to Bowen, emotional reactivity (ER), emotional cutoff (EC), fusion with others (FO), and I-position (IP) are the four components of differentiation. A person who is less differentiated or has emotional behavior is reactive and has realized their ability to experience and express emotion. It is difficult for these people to respond to others' feelings calmly. When there is much communication between people, less differentiated entrepreneurs may react with EC. These people differentiate themselves from others through their emotions.

On the other hand, entrepreneurs with high differentiation do not feel the need for EC. Entrepreneurs who are emotionally detached find friendships profoundly threatening and often tend to isolate themselves from others and their emotions. These people deny the importance of the family and show an unnatural view of autonomy (Skowron & Dendy, 2004). According to Bowen's theory, fusion with others is a fundamental problem in one's life, and the way out of this problem is differentiation. It has been observed that entrepreneurs with low differentiation are very involved or fused in their relationships with others (Johnson, 2005). Such entrepreneurs have an exceptional view of controlling emotions and their behavior and separating them from each other. When beliefs and emotions are not isolated, fusion occurs.

Highly differentiated entrepreneurs are well aware of their thoughts and feel self-confident. People who differentiate between their intellect and their emotions when problems arise can defend their rights and not get involved in their emotions. On the other hand, the fusion of thoughts and feelings causes a person to show their false self instead of presenting their true beliefs, i.e., the person pays more attention to the requests of others by losing her identity. Taking I-position is another component of differentiation. Differentiation occurs when a person can take IP. IP refers to an individual's behavior when under pressure from others. Entrepreneurs with low emotional differentiation are less likely to think, act, feel independent, and depend on others. Highly differentiated entrepreneurs take their IP in dealing with others and can pay attention to their thoughts and feelings in addition to meeting others' expectations (Skowron & Dendy, 2004).

In the late 1960s, after Skinner described the manufacturing strategy as a missing link, many definitions of manufacturing strategy were made. Skinner (1969) considers manufacturing strategies to be the effective use of manufacturing strengths resulting from an enterprise's strategic decision-making in the long run to achieve its business goals (Skinner, 1969). Waters (2006) defines a manufacturing strategy as follows: The manufacturing strategy includes all decisions and activities related to an organization's production, resources, long-term goals, policies, plans, and culture (Waters, 2006). Nang Leung (2002) considers manufacturing strategy as structural and infrastructural decisions of manufacturing industries to control long-term competitiveness (Leung, 2002). These definitions show several goals called competitive advantage and some measures to achieve these goals (Pouya, 2010). In general, manufacturing strategy research can be divided into two categories: content-related research and process-related research. Content-related research addresses competitive priorities, including cost, quality, capability and delivery dependency, flexibility, and innovation. Process-related research deals with the process of developing and implementing a manufacturing strategy. In their studies, Liang and Rogers (1997) emphasized the distinction between content and process.

Fahey and Christensen (1986) also distinguished between process and content. "Content focuses on the specifics of what is being decided. On the other hand, the process addresses how to make such decisions in an organizational context. Despite the obvious interaction between the two dimensions in organizational life, such a distinction is useful."

Hypothesis 2: There is a significant relationship between entrepreneurial differentiation and promoting manufacturing strategies of Sporting Goods Manufacturers.

Entrepreneurial fear of failure has been studied in two dimensions of internal and external factors, known as significant barriers to business development. Financial security, finance, and the venture's ability to execute are three components of external entrepreneurial fear of failure. A major anti-motivation factor for entrepreneurs is the financial fear of failure, and the feeling of such fear in entrepreneurs indicates a high-risk business environment for entrepreneurial activities (Audet, 2004). Financing is the most challenging part for entrepreneurs who are starting a business. It should be noted that traditional ventures fund a small percentage of the industries launched each year around the world, and about 9% are funded from private sources. Financing is usually difficult, complicated, and time-consuming (Bagheri, 2013). One of the most significant and often scary tasks an entrepreneur faces is estimating the demand for products and services. Indeed, entrepreneurs can experience success when they can adequately assess their market once entering the industry.

One of the concerns and fears of entrepreneurs in starting a business is identifying customers' specific needs and wants in the target market and how to meet their needs and wants (Dehghan & Peymanfar, 2021; Westerlund & Leminen, 2012). The internal barriers to entrepreneurial fear of failure are the four components of self-esteem, the potential for ideation, opportunity cost analysis capability, and personal abilities. In general, and social esteem in particular, self-esteem is affected by the quality of close relationships with others (Norouzi Seyed Hossini et al., 2022; Van Hiel & Brebels, 2011). Based on the studies, it can be said that the potential for ideation is defined in four issues: (1) believing in the potential of the entrepreneurial idea presented, (2) the belief that the idea presented is based on an opportunity with value creation, (3) believing that the idea taken from this opportunity has a good market, and (4) choosing an idea that is not a significant problem to implement. The combination of these four areas in the potential for ideation can cause entrepreneurship fear of failure. The opportunity cost analysis capability among entrepreneurs refers to the fact that an entrepreneur when implementing their idea, worries that "I will be away from my family when I start. To implement that idea, I have to devote time to it while spending it with my family. Whether the idea I consider is worth the cost of implementing it." Accordingly, an entrepreneur must have the ability to analyze cost and opportunity properly. Otherwise, this makes people afraid of initiating an entrepreneurial activity (Cacciotti et al., 2016). In describing personal ability, based on social psychology and cognitive theories, several perceptions have been presented about some ideas and attitudes in establishing a new business, which confirms the effect of perspective on the intention to start an entrepreneurial business. The more people have a positive attitude towards entrepreneurial initiatives, the more they undoubtedly recognize entrepreneurship as a possible activity. Therefore, it is more likely to have more sustainable entrepreneurial intentions (Drnovsek & Erikson, 2005; Nazari et al., 2022).

Hypothesis 3: There is a significant relationship between entrepreneurial fear of failure and promoting manufacturing strategies of Sporting Goods Manufacturers. A summary of the relevant research literature is described in [Table 1](#).

Table 1. Research literature.

Authors	Subject	Key variables	Findings
Soomro and Shah (2022)	Is procrastination a friend or foe? Building the relationship between fear of failure and entrepreneurs' well-being	Entrepreneurship, economic development, well-being, procrastination, fear of failure	It is revealed that the fear of failure has a significant positive influence on procrastination. Furthermore, procrastination negatively affects subjective well-being. Finally, procrastination has a negative mediating role in the relationship between fear of failure and subjective well-being.
Hashemi et al. (2022)	Causal modeling of failure fears for international entrepreneurs in the tourism industry: a hybrid Delphi-DEMATEL based approach	International entrepreneurship, fear of failure	As pointed out by the results, "fear of the future" is the most influential group of factors that may lead to other fears. This fear seems essential in international entrepreneurial tourism because of future ambiguity.
Stroe et al. (2020)	The dualistic regulatory effect of passion on the relationship between fear of failure and negative affect: Insights from facial expression analysis	Harmonious and obsessive passion, Fear of failure Facial expression analysis, entrepreneurship	The results confirm that dispositional fear of failure may lead to higher adverse effects in failure-relevant situations depending on the dualistic regulatory effect of passion—harmonious passion dampens the influence of fear of failure on negative affect (Studies 1 and 2). In contrast, obsessive passion magnifies this effect in Study 1 but dampens it in Study 2, thus showing mixed evidence.
Anwarul Haq et al. (2014)	Entrepreneurial activity in China and Pakistan: GEM data evidence	Entrepreneurial activity, Fear of failure, Other entrepreneurs' knowledge, Perception of capabilities, Perception of opportunities	Chinese are not significantly impacted by their fear of failure to participate in entrepreneurship. Gender is also not a significant predictor of entrepreneurial activity in China. In Pakistan, opportunity perception does not significantly predict whether to be involved in entrepreneurial activity, while other factors do. Gender is a significant predictor variable of entrepreneurial activity in Pakistan.
Martins et al. (2018)	Self-confidence and fear of failure among university students and their relationship with entrepreneurial orientation: Evidence from Colombia	Entrepreneurship education, Entrepreneurial orientation, Self-confidence, Fear of failure	As pointed out by the results, self-confidence and fear of failure are determinants of the EO of university students. Self-confidence positively affects the three dimensions of EO, whereas fear of failure negatively affects EO.
Dutta and Sobel (2021)	Entrepreneurship, Fear of Failure, and Economic Policy	Entrepreneurship, fear of failure, economic policy, economic Freedom, business climate	The previous literature found that self-reported 'fear of failure' had a significant negative influence on individuals' choice to become entrepreneurs. We hypothesize this effect is decreased in economies with more additional, alternative entrepreneurial opportunities to pursue if a failure occurs. We also test and confirm that fear of failure lessens the entrepreneurial process when higher economic freedom levels. There are more additional chances for failed entrepreneurs to pursue.

Authors	Subject	Key variables	Findings
Cacciotti et al. (2016)	A reconceptualization of fear of failure in entrepreneurship	Fear of failure, Entrepreneurship, Socially-situated cognition	This paper aims to delineate the nature of fear of failure within the entrepreneurial setting. We frame this construct regarding socially situated cognition by adopting an approach to capture a combination of understanding, affect, and action related to the challenging, uncertain, and risk-laden entrepreneurship experience.
Biswas (2016)	Total factor productivity, development, and entrepreneurship in emerging economies	Entrepreneurship, economic growth, emerging economies, entrepreneurship social acceptance, fear of failure factor	This study finds that perceived opportunities, peers' knowledge involved in startups, and media attention to startups, all indicators of entrepreneurship social acceptance, are statistically significant determinants of growth measured by per capita GDP and unemployment reduction. This effect is persistent even after controlling for time effects, despite the liquidity crunch and credit squeeze occurring during the financial crisis starting in 2008. The fear of failure factor did not significantly influence growth, confirming that entrepreneurs in emerging economy environments are mainly prepared to pursue their goals doggedly, even in the face of fewer than 50:50 odds of succeeding.
Games et al. (2020)	Earthquakes, fear of failure, and well-being: An insight from Minangkabau entrepreneurship	Earthquakes, Fear of failure, Entrepreneurs' well-being, entrepreneurship, Organizational resilience	The results showed that the post-earthquake impact was positively and significantly related to fear of failure. In contrast, the relationships between fear of failure, financial performance, and the well-being of SMEs were also established. Moreover, the context of Minangkabau as an entirely Muslim society generated arguments regarding religiosity and organizational resilience. These factors were discovered to have influenced entrepreneurship towards making a significant contribution to the body of knowledge in disaster entrepreneurship studies.
Morgan and Sisak (2016)	Aspiring to succeed: A model of entrepreneurship and fear of failure	Entrepreneurship, Fear of failure, Loss aversion, Aspiration levels	We reveal that when an individual's threshold for success is satisfactorily high, the fear of failure stimulates extra ventures. When the success threshold is equal to the foregone outside option, alternatively, the fear of failure is always demotivating. Finally, irrespective of the success threshold, fear of failure is negatively associated with entry into entrepreneurship.
Kollmann et al. (2017)	Fear of failure as a mediator of the relationship between obstacles and nascent entrepreneurial activity—An experimental approach	Fear of failure, Nascent entrepreneurship, Achievement motivation, Obstacles	We show that the perception of obstacles activates fear of failure, which, in turn, negatively influences opportunity evaluation and exploitation. The mediating effect of fear of failure generalizes across different samples and obstacles (resource-oriented, market-oriented, and social-capital-oriented obstacles). It contributes to entrepreneurship research and practice by explaining individuals' decisions to withdraw from an entrepreneurial endeavor.

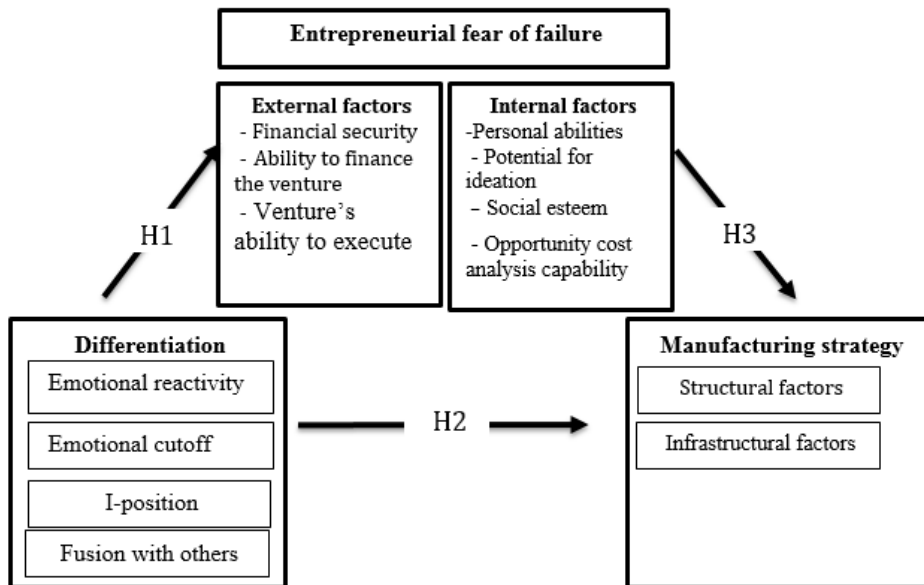


Figure 1. A researcher-made theoretical framework.

In this study, the independent variable is entrepreneurial differentiation, and in structural equation modeling (SEM), it is known as the primary exogenous variable. In SEM, the mediating variable is known as the intermediate endogenous variable, and in this study, it is the internal and external factors of entrepreneurial fear of failure. In SEM, the dependent variable is known as the final endogenous variable, and in the present study, it is the structural and infrastructural decisions of the manufacturing strategy.

3. Methodology

Regarding purpose, this study is applied research and correlational type. According to the statistics, 995 companies manufacture sports goods. Based on Morgan's Table, the sample size was determined to be 277 firms. The study questionnaires included the differentiation questionnaire developed by (Skowron & Friedlander, 1998). It consists of four components and forty-three items; the fear of failure questionnaire adapted from Cacciotti et al. (2016) composed of thirty-two items; and a researcher-made manufacturing strategy questionnaire with thirty-four items. This questionnaire has two dimensions of structural and infrastructural decisions, the validity of which has been confirmed by relevant industry experts and professors. The Shapiro-Wilk and Kolmogorov-Smirnov tests were used to determine whether the distribution of collected data was normalized or non-normalized. According to the conceptual model, the SEM was used to analyze inferential statistics.

3.1. Data Analysis

The descriptive statistics showed that 51% of respondents were aged 31-40, 39% were aged 41-50, and 10% were under 30. Regarding gender, 81 (29%) of the sample were women, and 196 (71%) were men. The frequency of entrepreneurs' education level is as follows: 82 (30%) of entrepreneurs have a diploma and under high school diploma degrees, 57 (21%) have an associate degree, 106 (38%) have a bachelor's degree, and 32 (12%) have a master degree and higher. The distribution of sample members based on entrepreneurs' experience is as follows: 82 (29%) of entrepreneurs have ten or fewer years of experience, 102 (38%) have 11 to 20 years of experience, and 93 (33%) have more than 20 years of experience. Table 2 shows the results of the descriptive analysis, including central tendency and dispersion indices.

Table 2. Descriptive analysis of the “differentiation” as an independent variable.

Variable	Components	Mean	Median	Exponent	SD	Minimum	Maximum
Differentiation	Emotional reactivity	3.584	4	4	1.3747	1	5
	Emotional cutoff	2.327	2	2	1.1187	1	4
	I-position	2.347	2	2	1.2618	1	5
	Fusion with others	3.682	4	4	1.0229	2	5
	Differentiation Total	2.985	3	3	1.1945	1.25	4.75
Fear of failure	Personal abilities	3.412	4	4	1.2850	1	5
	Potential for creativity	2.456	2	2	1.1575	1	5
	Social esteem	3.626	4	4	1.2416	2	5
	Opportunity cost analysis capability	3.643	4	2	1.1657	2	5
	Internal fear of failure factors	3.284	3.5	3	1.5843	1.5	5
	Financial security	3.644	4	4	1.2843	2	5
	Ability to finance the venture	3.693	4	4	1.3080	1	5
	Venture's ability to execute	3.315	4	4	1.4440	1	5
Manufacturing strategy	External fear of failure factors	3.551	4	4	1.0454	1.33	5
	Structural factors	3.427	4	3	0.717	1	5
	Infrastructural factors	3.608	4	4	1.398	2	5

The relationship between research variables (differentiation, fear of failure, and manufacturing strategy) is interpreted by calculating their correlation coefficients. This coefficient is between -1 and +1. The closer this correlation coefficient is to 1, the more seriously the trend of co-directional or opposite variables is examined. After determining

the significance level and the direction of the relationship through testing, it was revealed that there was a significant relationship between differentiation, fear of failure, and manufacturing strategy ($p < 0.01$). Therefore, there is an important negative relationship between IP and the potential for creativity and fear of failure experience. As they increase, entrepreneurs' fear of failure decreases. Alternatively, there is a significant positive relationship between ER, EC, and FO, concern over personal ability, social self-esteem, inability to analyze opportunity cost, concern over financial security, concern over the ability to finance, and concern over the venture's capacity fear of failure. As these components increase, entrepreneurs' fear of failure intensifies. Figure 2 shows the relationships between differentiation, fear of failure, and manufacturing strategy in the main directions of the model.

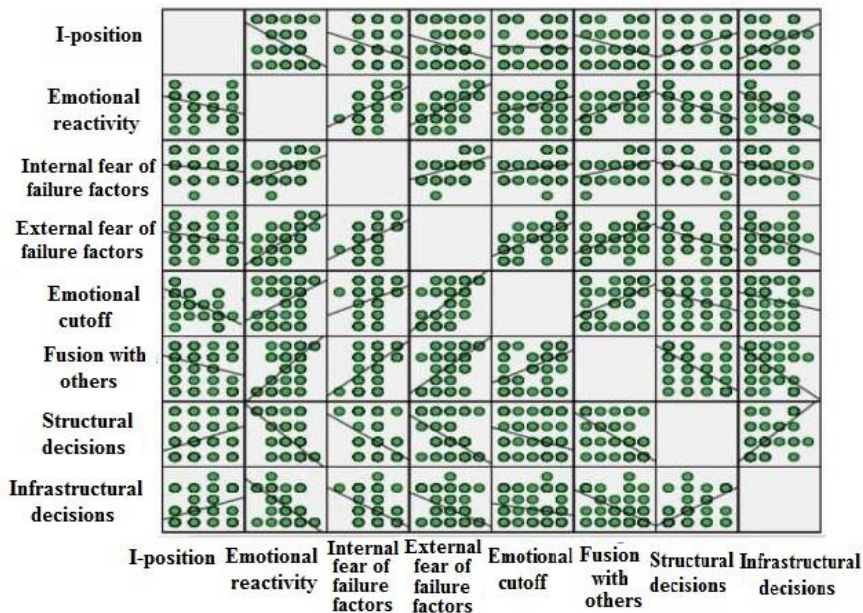


Figure 2. Scatter diagram between variables.

The scatter diagram shows a linear and ascending relationship between differentiation, fear of failure, and manufacturing strategy. Entrepreneurial fear of failure decreases by increasing IP and the potential for ideation. Entrepreneurs' fear of failure is also exacerbated by increasing ER, EC, and FO, concern over personal ability, social esteem, inability to opportunity cost analysis, concern over financial security, concern over the ability to finance, and concern over the venture's capacity. Notably, there is a negative relationship between entrepreneurs' internal and external fear of failure factors and two components of manufacturing strategy: structural and infrastructural decisions. Increasing these components makes entrepreneurs more afraid of failure and missing opportunities. As these components reduce, entrepreneurs make better and more optimal structural and infrastructural decisions.

In this study, the relationships between differentiation, fear of failure, and manufacturing strategy were significantly confirmed through correlation tests. Then, using confirmatory factor analysis (CFA) and path analysis, we examine the effect sizes of variables and model fit and determine the influence of independent and mediation variables on the dependent variable, i.e., manufacturing strategy. The factor loading coefficients and significance level of independent, dependent, and mediation variables in the measurement model are shown in the following Figures:

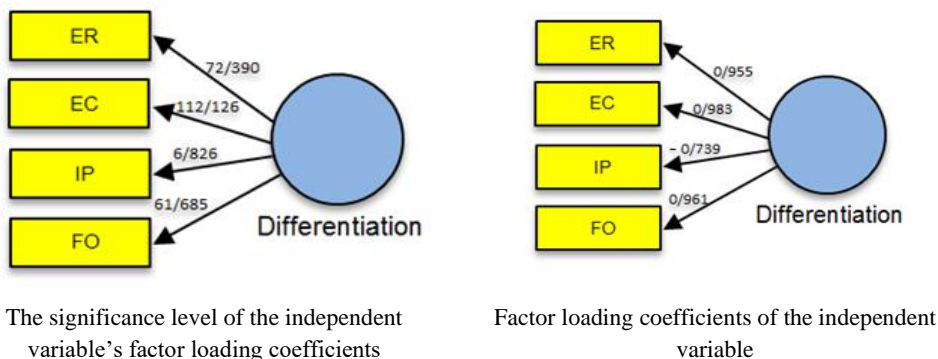


Figure 3. The measurement model of independent variables.

According to the measurement model, the factor loading coefficients related to the independent variable construct, differentiation, in each of its observed items, have a factor loading greater than 0.4, indicating the acceptability of the variable's construct. In the construct measurement model, the significant coefficients are higher than 1.96, which suggests the significance of the differentiation factor loadings.

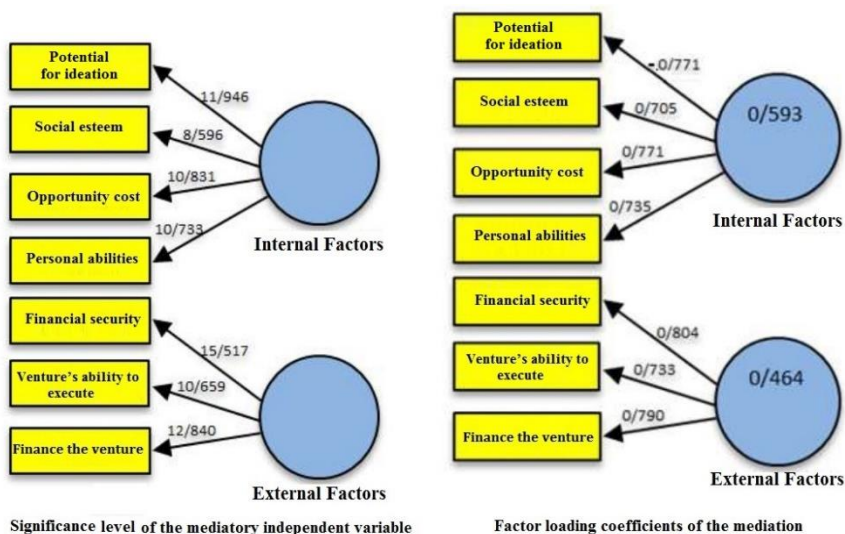


Figure 4. The mediation measurement model.

As shown in Figure 4, in CFA, the factor loadings of the mediation construct, i.e., fear of failure, are higher than the standard value (0.4). Their significance level is higher than the standard value (1.96), indicating the acceptable significance of factor loadings and that the research model has a good fit.

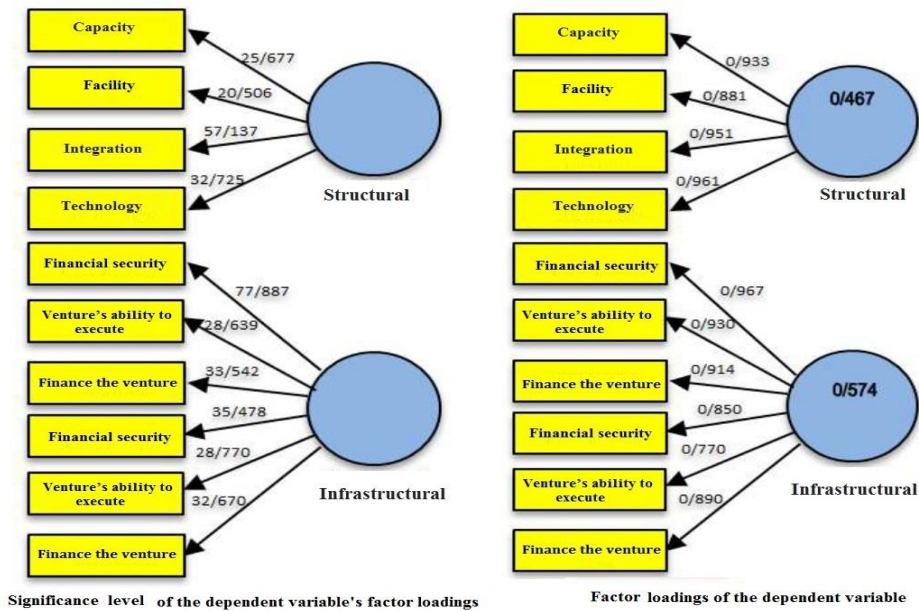


Figure 5. The dependent variable measurement model.

According to Figure 5, all factor loading values in the dependent variable, manufacturing strategy, are higher than the standard value, i.e., 0.4. It implies that the measurement model of the dependent variable, manufacturing strategy, has a good fit. The significance coefficients of this model are confirmed because they are higher than the standard value, i.e., 1.96. The dependent variable model, manufacturing strategy, also has a good fit. Then, we will examine the structural model and path analysis to examine the coefficients of determination and path coefficients. Based on Fig.6, the regression effect coefficients of the relationship between the research variables are investigated in the path analysis model.



Figure 6. Path analysis of the conceptual model.

The regression coefficients of the main paths of the conceptual model are higher than the standard value, i.e., 0.4, which indicates that the variables are affected by each other. In this path analysis, the infrastructural decisions of the manufacturing strategy show a coefficient lower than 0.3, which is not statistically acceptable. The significant figures model is used to determine the significance of regression coefficients. If the significant figures are lower than the standard value (1.96), the model path will not be confirmed, and the hypothesis of this path will be rejected. Figure 7 shows the results of the significant figures model of research variables.

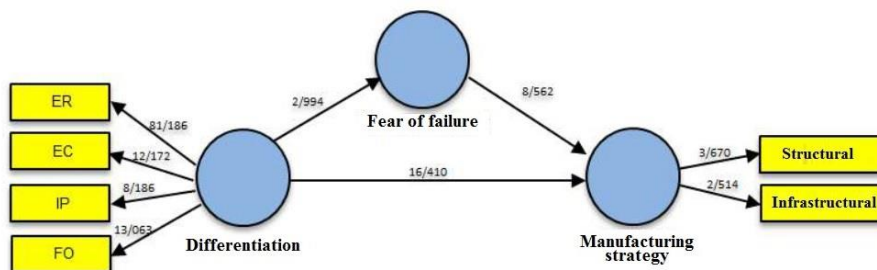


Figure 7. Research model with significance coefficients (t-value).

As shown in Figure 7, the significance of the path regression coefficient of the manufacturing strategy variables is confirmed because it is greater than the criterion value (1.96), indicating that the model variables are affected by each other. Then, through the variance accounted for (VAF) test, the variables' direct and indirect effects are examined. According to Fig.7, the internal and external factors affect entrepreneurs' fear of failure and explain the promotion of manufacturing strategy by 59.2% ($R^2 = 0.592$). On the other hand, differentiation can also explain the manufacturing strategy by 52% ($R^2 = 0.520$). For determining the indirect effect size through the mediation, fear of failure, the VAF statistic is used, which takes a value between 0 and 1. The proximity of this effect size to the number 1 indicates the strength of the influence of the mediation variable. In the same way, the indirect effect size on the total effect is also calculated. The VAF value is calculated by Equation (1):

$$(1) \quad VAF = \frac{a \times b}{(a \times b) + c}$$

The assumptions of this formula are:

- **a**: Path coefficient between the independent variable (differentiation) and mediation (fear of failure)
- **b**: Path coefficient between mediation (fear of failure) and dependent variable (manufacturing strategy)
- **c**: Path coefficient between the independent variable (differentiation) and dependent variable (manufacturing strategy)

The indirect effect of differentiation (mediation variable is fear of failure)

$$VAF = \frac{0.391 \times 0.753}{(0.391 \times 0.753) + 0.750} = 0.604$$

Findings confirm that the fear of failure factors play a favorable mediating role ($VAF > 0.5$) in the relationship between differentiation and manufacturing strategy. In other words, the indirect effect size of the differentiation and manufacturing strategy is higher than its direct path.

6. Discussion and conclusion

It is necessary for entrepreneurs' successful control over different situations, to reinforce their differentiation to make better decisions in promoting manufacturing strategies. Also, the more remarkable ability of entrepreneurs to gain "I" positions concerning others, along with emotional reactivity, indicates a high level of successful control and ensures the promotion of manufacturing strategies. Differentiation helps entrepreneurs find their way without waiting for guidance and direction from others. Thus, highly differentiated entrepreneurs have social skills, strengthen their competencies through practice, and successfully promote manufacturing strategies. They also have positive interactions with their peers and show acceptable behavioral responses. Entrepreneurs who know the social rules and have a sound and robust relationship with their colleagues and competitors are likelier to promote manufacturing strategies. This study also confirmed a significant relationship between entrepreneurial fear of failure and promoting manufacturing strategies. Cacciotti et al. (2016) also confirmed it and stated that the internal and external factors affecting the fear of failure could be examined. Therefore, entrepreneurs select and implement different strategies. According to Mohammadi Eliassy and Notash (2011), the reasons for most entrepreneurs' failure are the same and predictable factors that need to be identified to prevent loss. Identifying the SMEs' success factors will help entrepreneurs promote their manufacturing strategies (Mohammadi Eliassy & Notash, 2011). It is crucial to consider the structural and infrastructural factors of the manufacturing strategy. In the face of fear of failure, entrepreneurs adopt different strategies that can be examined in two areas of structural and infrastructural decisions. There is also a negative relationship between entrepreneurial fear of failure and the promotion of manufacturing strategies.

The first hypothesis was a significant relationship between entrepreneurs' differentiation and fear of failure. According to the findings of this study, it was found that differentiation affected entrepreneurial fear of failure. Accordingly, differentiation negatively affected entrepreneurs' fear of failure. The differentiation had a mitigating effect on entrepreneurs' fear of failure. It is worth noting that the entrepreneurial fear of failure is a function of personal inabilities, lack of potential for ideation, lack of social esteem, and inability to analyze opportunity cost. Differentiation involves highly differentiated entrepreneurs who are risk-takers and highly inclined to take exciting action. These entrepreneurs are more inclined to succeed because it is enjoyable for them to succeed because of its difficulty. It reduces their fear of failure level and increases their desire for success.

The second hypothesis examined the relationship between entrepreneurial differentiation and promoting manufacturing strategies. Findings showed a significant relationship between entrepreneurs' differentiation and promoting manufacturing strategies of Sporting Goods Manufacturers. In other words, the greater the entrepreneurial differentiation, the more it can play a significant role in promoting manufacturing strategies. To illustrate this finding, we argue that highly differentiated entrepreneurs have well-defined behaviors, take a specific path, maintain control in sensitive situations, and make rational decisions. On the other hand, undifferentiated entrepreneurs do not have well-defined behaviors. They often face problems emotionally and are anxious when communicating with others. Highly differentiated entrepreneurs have strong egos that can handle situations well, act on existing realities, and control emotion efficiently. These entrepreneurs have well-defined goals, deal with their thoughts and beliefs independently, and efficiently respond to emotions through reasoning and logic. Highly differentiated entrepreneurs generally have high overall performance, mental health, and a sense of responsibility and autonomy, affecting individual and interpersonal relationships. A sense of responsibility in individual relationships leads to the importance of values, progress, and making the right decisions.

On the other hand, a sense of responsibility in interpersonal relationships creates security and trust and ultimately facilitates interpersonal relationships. These entrepreneurs are not automatically subject to emotions. It means that even in interpersonal and social situations with high excitement levels, they ponder the problem, act on argument-based estimation, and make sound decisions, not just react to events. Differentiation in their thinking and behavior clarifies how much they can or may not enter when interacting. This feature prevents many problems and even facilitates the promotion of manufacturing strategies.

The third hypothesis implied that internal factors causing an entrepreneur's fear of failure affect the manufacturing strategies of Sporting Goods Manufacturers. Therefore, according to the results, this hypothesis was confirmed. This finding is also consistent with [Cacciotti et al. \(2016\)](#). Entrepreneurs with higher personal disabilities, lack of potential for ideation, social esteem, and inability to analyze opportunity costs express a higher fear of failure. According to [Cacciotti et al. \(2016\)](#), the fear of failure internally factors is caused by an entrepreneur's internal cognitive evaluations. The ability to control external factors affects entrepreneurial fear of failure. Fear of financial failure is the main anti-motivational factor in business and entrepreneurial activities. [Kianpour \(2013\)](#) considers entrepreneurs' worries about losing capital and their need to maintain personal assets and family support as one of their anti-motivational and critical factors. The most important reasons for such crises are seen in traditional management structures. Entrepreneurs' creativity has been eroded by establishing favorable business and economic conditions and complying with laws ([Kianpour, 2013](#)). [Cacciotti et al. \(2016\)](#) also believe that an entrepreneur's ability to control external factors can affect the fear of failure ([Cacciotti et al., 2016](#)). According to the findings, the research suggestions are:

- The study revealed that high differentiation was helpful for entrepreneurs, and on the other hand, low differentiation is undesirable for entrepreneurial fear of failure. Accordingly, improving differentiation among entrepreneurs, especially

in SMEs, makes more rational decisions. Capable SME entrepreneurs have the opportunity to make accurate and correct decisions in the face of risks at work by improving their self-confidence. In other words, by improving differentiation, they do not assume that the existing risks are too significant and impossible. With a realistic view, they examine the situation and make decisions accordingly. Thus, strengthening the level of differentiation for entrepreneurs leads to risk-taking with an objective analysis of the current situation.

- We found that the internal factors of entrepreneurs' fear of failure are considerable in the amount of fear they express. SME entrepreneurs should pay more attention to their capabilities and knowledge. They need to be aware that disbelief in their inner strengths increases their fear of failure. As a result, they do not show excellent behavioral responses and miss opportunities.
- Entrepreneurs need to be aware of their inability to understand the potential for ideation, the concern over personal ability, inadequate social esteem, and the inability to analyze opportunity costs. Specifically, studies show that the inability to analyze opportunity cost leads to inappropriate behavioral responses, meaning that SME entrepreneurs cannot make the right decisions about opportunities ahead. Therefore, it is recommended that entrepreneurs implement their findings in such situations in consultation with SME experts or managers.

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رابطه بین تمایز کار آفرینی و ترویج استراتژی‌های تولید تولیدکنندگان کالاهای ورزشی - نقش واسطه‌ای ترس از شکست

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کلیدواژه

استراتژی‌های ساخت
بنگاه‌های خرد و متوسط
تصمیم‌گیری
توسعه اقتصادی
خطرپذیری

نوع مقاله

پژوهشی اصیل

چکیده

هدف: امروزه با توسعه شرکت‌های کوچک و متوسط، نقش تصمیم‌گیری کارآفرینان جایگاه ویژه‌ای در ارتقای استراتژی تولید دارد. این مطالعه به بررسی رابطه بین تمایز کارآفرینی و ترس از شکست در ارتقای استراتژی‌های تولید شرکت‌های کوچک و متوسط در تولیدکنندگان کالاهای ورزشی پرداخت.

روش: این پژوهش از نظر هدف کاربردی و از نظر روش‌شناسی از نوع همبستگی است. جامعه پژوهش را تولیدکنندگان لوازم ورزشی تشکیل می‌دهند. طبق آمار ۹۹۵ شرکت وجود دارد. حجم نمونه بر اساس جدول مورگان ۲۷۷ شرکت بود. در این مطالعه از پرسشنامه‌های تمایز ایجاد شده توسط اسکورون و فریدلندر (۱۹۹۸)، پرسشنامه ترس از شکست اقتباس شده از کاپیوتی و همکاران (۲۰۱۶) و نیز از یک پرسشنامه محقق ساخته برای استراتژی تولید، استفاده شد. روایی پرسشنامه محقق ساخته توسط کارشناسان و اساتید صنعت مربوطه تایید شد. برای تجزیه و تحلیل داده‌ها از مدل‌سازی معادلات ساختاری و نرم افزار SmartPLS استفاده شد.

یافته‌ها: نتایج نشان داد که عوامل درونی و بیرونی مؤثر بر ترس کارآفرینان از شکست می‌تواند استراتژی تولید را تا ۵۹.۲ درصد ارتقا دهد ($R^2 = 0.592$). از سوی دیگر، تمایز کارآفرینی نیز می‌تواند بر ارتقای صنعت تولید تا ۵۲ درصد تأثیر گذارد ($R^2 = 0.520$).

اصالت و ابتکار مقاله: اگرچه تحقیقات زیادی در زمینه کارآفرینی و استراتژی تولید انجام شده است، اما تحقیقات کمی در مورد تمایز کارآفرینان و ترس از شکست انجام شده است. کارآفرینان می‌توانند از ذینفعان اولیه این تحقیق باشند. مدیران شرکت‌ها و سازمان‌های تحقیقاتی نیز می‌توانند از یافته‌های تحقیقاتی برای برنامه‌ریزی صنعت تولید و ابتکارات کارآفرینی و مدیریت استراتژی و کارآفرینی استفاده نمایند.

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