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Effect of Strategic Complexity on Management Decision Making of Small and Medium-Size Enterprises in Pakistan

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Abstract: Strategic complexity displays an institution's ability to produce a unique and challenging approach by combining a variety of facts and skills. It has a significant impact on a business. The purpose of the study was to explore the effect of strategic complexity on the management decision-making process of small and medium-sized enterprises in Pakistan. It was a causal-comparative survey study. The population of the study comprised employees working in Small and Medium Enterprises in Pakistan. Data were collected from randomly selected 490 workers of SMEs. The researcher collected data by using an adapted questionnaire from selected enterprises from sampled individuals. The regression was applied for observing the effect of strategic complexity on the management decision-making process in SMEs. It was found that strategic complexity played a vital role in improving SMEs' managerial decisions. The management should prefer strategic complexity during decision-making. However, the administration may make risky decisions to support the employees in the organization.

Keywords: Strategic complexity, management decision making, customer, Pakistan

1. Introduction

In an enterprise, strategic complexity is critical. The different levels of strategic intricacy, expressed as decision-making rules, affect an organization. The need to accept strategic complexity has some surprising productivity consequences. If an organization can adapt to the system's complexity, it can improve product quality. Complexity has an impact on the decisions made by decision-makers at all levels of an organization. It has several consequences. Most important is that it leads to a situation in which using rational decision-making models is no longer practical, and it does not result in improved decisions. The choices are made in a variety of settings.The environment has an impact on the decision-making process (Florence, 2004).

Literature Review

Strategic Complexity

The concept of strategic complexity is central to the theory of bounded rationality, which demonstrates that people prefer' simpler plans. However, it is unclear which methods players use to reveal less complicated strategies. Similarly, strategic complexity describes strategy, describing whether firms are motivated by a specific plan or use a variety of approaches to interact with a dynamic environment (Ashmos et al., 2000). Inside an institution's designed assembly, strategic complexity refers to the "scope

and concentration of apprehensions and operations" (Miller et al., 2002, p. 863). Strategic complexity demonstrates an organization's capacity to use a wide range of facts and capabilities to create a valuable and difficult-to-copy approach (Wernerfelt, 1989; Rivkin, 2000).

Higher levels of strategic complication are usually associated with higher levels of performance and more stability. One of the most basic prerequisites for a company to maintain tactical thinking is a thorough understanding of managerial skills (Neill & Rose, 2006; Miller, 1999). Strategic complexity can affect the strategic decision maker's policy management associations, as well as other aspects such as the decision environment. Decision-makers in fewer contexts who use tabular graphics are effectively able to consider the appropriate aspects in the judgment process. Throughout collective monitoring, the complexities and non-routineness of a judgmental environment are generally synced with the complexity and non-routineness of a team to perform effectively. Whenever a workgroup is confronted with a complicated and non-routine learning environment, having different opinions to analyze and critically evaluate to find appropriate answers can be beneficial.

Dimensions of Strategic Complexity

It's founded on the idea that a company's clientele, competitors, revenues, and macro-environment are all important to them. The logical topologies for decision-making are these traits. A consumer affinity focuses on the advantages of an objective consumer, whereas a competitor alignment focuses on current and potential competitors. Naryer and Slater's research studies (1990)laid the groundwork for the market and competition orientation methodologies.

Customer Orientation

The market needs division notification, acquiring proclivities, skills, work traits, value, marketplace boom (Cooper, 1983), challengers, and traders are all considerations that the term "market" encompasses (Porter, 1985). Customer preference is defined by Deshpande and Webster (1989) as the thoughts upon which person places the most value on his interest. As a result of this imaginative strategy, a consumer-oriented company is defined as one that has the capability and drive to identify, investigate, understand, and meet consumer needs.

Competitive Orientation

The ability to recognize, investigate, and respond to opponents' activities is described as a performer's orientation. It entails identifying and producing competitive advantages in terms of excellence or precise services, as well as enabling the firm to effectively reach a position of creative refined products. These dispositions enable a business to recognize that now the current developments and competitors also have medium strengths and weaknesses to which it may successfully respond (Naryer & Slater, 1990).

When challenged by competitive developments, competitors do not remain passive. However, they react to maintain their current roles. Furthermore, as a property of competitive market qualities, the most productive and innovative firms select specific types of new items. According to the findings of previous research in this field, successful businesses avoid remarkably competitive industry contests and prefer business hubs where they can obtain and prevent their corporate interests, such as those with a large market potential, rapid development, no going to lead competitor, and a massive number of users (Cooper, 1983). As a result, competitor orientation becomes a requirement to profit from testing.

Product Orientation

A product orientation is a focus on developing creative products, identifying essentially unique products, improving the performance of existing products, and persuading customers that new products and services are for the better. Product-oriented authors reacted angrily to the marketing perspective of consumer-oriented. Customer preference is a concern with customers compromising: focusing on enhancing goods by changing to what the customer wants generally, and more specifically, whatever the customer wishes of certain segments.

Macro Environment Orientation

A macro-environmental element can be divided into five categories: sociocultural surroundings, organizational resources, and goals, modern-day business conditions, and financial, political, and legal environment. Extraneous characteristics have been shown in different studies to affect inequalities in enterprises and organizational structures. Employment settings, level of competition, client behavior, the dynamic of technology, worldwide climate, social environments, and cultural and historical setting are examples of external factors. In an institution, macro-environmental elements like social, administrative, legal, and economic situations play a major role. Uncertainty in these domains seems to have the ability to reduce a company's ability to plan and execute tactical decisions. In numerous commercial enterprises, terms like globalization and internationalization are more frequent. Each industrial company, such as locomotive, technology, communication, apparel, and food, can be observed.

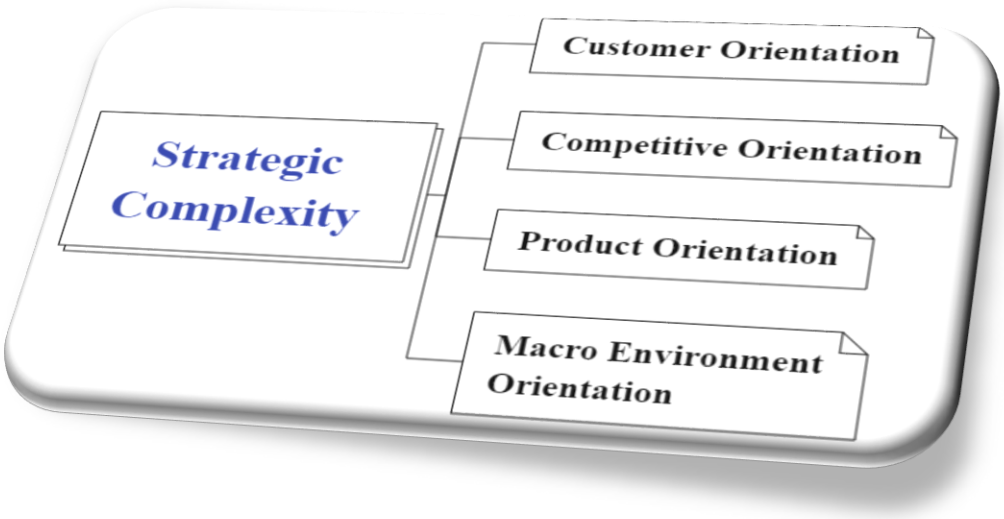

Figure 1: **Factors of strategic complexity**

Management Decision Making

Administrators' work revolves around making decisions (Hickson et al., 1989, Michel, 2007, Stewart, 2006). One of the essential qualities that managers must possess and develop to lead their businesses in the market region is the capacity to draw judgments. Porter (1985) claims that a company's success or failure is largely determined by its ability to make decisions in a competitive environment. Because of the fast-paced and uncertain nature of today's business world, executives must make quick decisions if they want their businesses to stay competitive (Ahmed et al., 2012).

Management Decision-Making Process

Managerial decision making is stated in a multi-step system including a large number of segments or roles (Hall & Hofer, 1993, Harrison & Horne, 1999, Langley et al., 1995), in which substitutes are distinguished to achieve the optimal result in a given situation (Keast& Michael, 2009). The primary steps of decision-making are to look for possibilities in terms of deciding; to look for possible options, and to choose best from the options". Similarly, Mintzberg et al. (1976, p.246) defined the entire decision-making process as a collection of actions and static factors that begin with the awareness of an impulse for action and end with a specific duty to fulfill.Justification of the issue, recognition of doctrines, selecting the most important standards, source of replacements, analysis of each option based on a criterion, and ultimately estimation and selection of the most valued alternative are all stages that should be taken into consideration during the decision-making process (Bazerman, 2006).

Strategic Complexity and Management Decision Making

A few environmental zones are represented by deliberately complex relationships. The strategic planning process that is governed by sole perspectives is weak. However dynamically diverse orientation should advance strategic planning (Weick, 1995). For instance, some experts have said that putting too much attention on competition may lead to constrained, coercive actions and under-performance (Roger, 2010). This study investigates the relationship between an organization's strategic difficulty, the likelihood of specific perspectives in its judgment, and its ability to properly settle on results and achieve higher implementation by examining the business tactic processes and implementation of organizations that vary in their importance of strategic complexity. The core principle is that the cognitive framework in which practices are organized and outcomes are addressed determines the strategic complexity of an organization.

SMEs Sectors of Pakistan

Small and medium-sized enterprises (SMEs) play an important part in a country's economic, industrial, and sociological growth. Several industrialized countries recognize the importance of microenterprises in their fiscal planning. SMEs have a unique role in development since they have historically been a source of job creation and revenue growth. Increasing people’s income, assist a state’s success in maintaining the average life expectancy. SMEs have a crucial role in the economy's progress and attraction. These enterprises are one of the most essential pillars for poverty reduction through the expansion of the domestic economy. This can serve as a basis for participation and progress in the community. Pakistan's economy, like that of many other emerging regions, is based on the SME sector.

Significance of the Study

The role of strategic complexity in SMEs' managerial decisions is examined in this study. As a consequence of this study, SMEs stakeholders may be able to develop a balance in the decision-making phase in a dynamic system or program. This research also assists SMEs in developing a comprehensive decision-making mechanism in a challenging environment using Chaos and Complexity theory. The study's findings are expected to aid future research by offering crucial insights into the conceptual and analytical background of strategic diversity and managerial decision-making.

Objectives and Hypotheses

The objectives of the study were to explore the correlation between strategic complexity and management decision-making and to examine the effect of strategic complexity on the management decision-making process in SMEs in Pakistan.

There are the following research hypotheses based on the objectives.

H_1: The strategic complexity of SMEs is significantly correlated with decision-making in SMEs.

H_2: The strategic complexity of SMEs has significant and positive influences on decision-making in SMEs.

2. Method

Research Design

It was a causal-comparative study. This study used cross-sectional research for two reasons: it is a quantitative study with a deductive method, which suggests that a cross-sectional study is more plausible.

Population and Sample

The population of the study comprised employees working in Small and Medium Enterprises in the Khyber Pakhtunkhwa Province Pakistan. SMEs are defined by the SBP (State Bank of Pakistan) as enterprises with less than 250 employees or revenue of fewer than 30 million rupees (Raza& Majid, 2015). A union of SMEs was formed to achieve the greatest number of SMEs possible. This union agreed to distribute the questionnaire to their members, allowing us to obtain a bigger sample of small businesses.

Scholars have frequently used the SMEs listed in online business dictionaries, chambers of commerce, and SMEDA to select samples and populations. SMEs from Pakistan's Khyber Pakhtunkhwa province made up the study's population. From the aforementioned datasets of SMEs, a combined list of 10,000 SMEs was compiled. Only those SMEs were included as part of the investigation's population who had access to their whole database of postal addresses, phone numbers, and email addresses. Print media reported thirty-two million SMEs in Pakistan that were registered while 15000 were functional despite they were not getting help from the government. This list is also available in the SMEDA. To ensure that the sample was representative of the population, the minimum parameters for SMEs amount by branch and segment of the movement were also established.

Measurements

A survey instrument was used which was adapted in form of a questionnaire. The field experts validated the questionnaire. The reliability of survey instrument items was explored by Cronbach's alpha statistics. All of the items of the measuring instrument were measured through a Likert scale of seven-point starting from 1=strongly disagree" to "7=strongly agree". Miller (1999) claimed that the human mind has a span of absolute judgment that can distinguish about seven distinct categories, a span of immediate memory for about seven items, and a span of attention that can encompass about six objects at a time, implying that expanding the number of response categories beyond six or seven might be futile.

Strategic Complexity

The independent variable was strategic complexity, and it was represented by four factors. Eighteen questions were developed under four dimensions, which were adapted from Neill and Rose (2006) and also used by Cheng and Chang (2010) in their research.

Management Decision Making

As a dependent variable, the decision-making variable was used. This variable was assessed using seven questions developed by Carmeli et al. (2009).

Table 1

Frequencies and Reliability Values of Factors

Sr.	Variables	M	*SD*	Minimum	Maximum	Reliability (α)
1	Gender	0.59	.40	0.00	1.00	--
2	Business size	2.17	.67	1.00	3.00	--
3	Comp.Orient.	5.51	.62	1.00	6.75	.84
4	Cust.Orient.	5.57	.62	1.00	6.67	.83
5	Prod.Orient.	5.53	.75	1.00	6.67	.85
6	M.En.Orient.	5.46	.65	1.00	6.80	.84
7	MDM	5.27	.63	1.00	6.57	.87

The above table is presenting the frequencies and reliability values of subfactors and factors. All values are highly statistically significant and acceptable sub-dimensions. Similarly, the overall reliability of strategic complexity and management decision-making was .87. Thus, items of variables are statistically significant and highly contented.

Data Collection and Analysis

The researcher collected data from selected enterprises from sampled individuals. She visited the organizations personally and met managers and leading personnel of the industry. The whole process was carried out by following ethics. After completing the data collection it were analyzed by applying various relevant statistics. The mean and frequencies were also explored. The Pearson r was used for confirming the correlation between variables and factors. The regression was also applied for observing the effect of strategic complexity on the management decision-making of SMEs.

3. Findings and Results

The following detailed results and findings were drawn after data analysis.

Table 2

Normality of Data and Multi-Collinearity

Variable	Tolerance	VIF
Strategic complexity	.749	1.336
Management decision making	.561	1.783

This study has a rather big sample (490 SMEs), the Central Limit Theorem could be used, and the data's normality was not questioned. In this study, two major methodologies were used to determine the presence of multicollinearity in the independent variable. Both the Tolerance Test and the Variance Inflation Factor (VIF) were calculated as part of these approaches.

Table 3

Correlation between Strategic Complexity and Management Decision Making

Variables	*r value*	*Sig.*
Strategic Complexity and Management Decision Making	.43	.01

Table 3 shows the relationship between two variables in the management field. There was a moderate significant association between strategic complexity and Management Decision Making of SMEs. It is concluded that both factors are correlated with each other.

Table 4

Correlation among Sub-Factors of Strategic Complexity and Management Decision Making

Sr.	Factors	*MDM*
1	Comp.Orient.	.27**
2	Cust.Orient.	.25**
3	Prod.Orient.	.27**
4	M.En.Orient.	.23**

All of the variables have a substantial positive correlation with customer attention. Product orientation (r=.27, p.01) and macro-environmental orientation (r =.23, p.01) have substantial correlation. The product orientation has been significantly positively correlated with MDM. It is concluded that sub-factors of strategic complexity and management decision-making are interrelated.

Table 5

Effect of Strategic Complexity on Management Decision Making Of SMEs

Factors	*Beta (β)*	*Std. Error*	*T*	*Sig.*
Comp.Orient.→ MDM	.27**	.05	6.13	.00
Prod.Orient. → MDM	.33**	.04	6.18	.00
Cust.Orient.→ MDM	.25**	.04	5.60	.00
M.En.Orient.→ MDM	.22**	.04	5.14	.00

** $p < 0.01$; n=490

As a result, competition orientation has a favorable and significant impact on SMEs' managerial decision-making (=.27, .01). As an outcome, the hypothesis is considered valid. Product orientation influences SMEs' management decisions positively and substantially (=.33, .01). As a result, another H is approved. Customer orientation has a favorable and significant impact on SMEs' management decisions

(=.25, .01). Environmental attitude has a favorable and significant impact on SMEs' management decisions (=.22, .01). As a result, statistically, hypotheses are accepted.

4. Discussion, Conclusions, and Recommendations

The purpose of this study was to look into the correlation between strategic complexity and decision-making in SMEs, as well as to look into the impact of strategic complexities on managerial decision-making in Pakistani SMEs. For this study, research hypotheses were developed. The findings reveal that all of the anticipated strategic complexity attribute linkages have a significant positive impact on SME management decision-making. As a result, all of the sub-hypotheses were accepted. Strategic complexity and its features were found to be significant determinants of SME managerial decision-making.

Moreover, in big and SMEs-focused studies, no previous work on strategic complexity's impact on managerial decision-making in SMEs was reported. As a result, this study's discovery is unique in the area and should be acknowledged. The results of the survey of strategic complexity and managerial decision-making in SMEs support complexity theory (Fabac, 2008) and chaos theory, according to one of the study's primary theoretical findings (Hayward & Preston, 1998). These theories are offered to help people have a better grasp of the complex phenomenon. The effect of strategic complexity in managerial decision-making in Pakistani SMEs is examined in this research. As a result of chaos and complexity theory, this research was able to determine the effect of strategic complexity in managerial decision-making in Pakistani SMEs.

The study found a somewhat significant relationship between strategic complexity and SMEs' managerial decision. Furthermore, the goal of this research was to contribute to the literature and improve knowledge of the role of strategic complexity in managerial decision-making in Pakistani SMEs. While proving the importance of strategic complexity in management making decisions, it was discovered that its dimensions play an important part in improving SMEs' managerial decisions. Indeed the corporation plays a role in the relationship between strategic complexity and managerial decision-making. These findings offer new opportunities for policymakers and researchers working with SMEs to develop confirmed strategies that will help them make better management decisions. In future studies, the researchers may prefer to employ a mixed technique with SEM to analyze data. Decision-makers and SMEs policymakers are usually interested in the results.

The product is the most preferable concern of any organization. To enhance the level of product, management should take decisions market-oriented and focus on the strategy development process for achieving goals. Strategic complexity should be customer-oriented in the industry. The reason is that if the customer is satisfied then the demand for the product is increased definitely. It is only possible by taking managerial decisions.The organizational environment is vital in all aspects. It is the source of drastic and positive changes in the industry. The management should provide a healthy and friendly environment for employees and customers. If management take decision for employees then they may do work with commitment and sincerity. However, the administration may make risky decisions to support the employees in the organization.The management should bring innovation to compete in the market. It is only possible with innovative thoughts and strategic development.

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