

Linking strategic complexity to management decision making in SMEs: Mediation of organizational flexibility

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Abstract: This paper aims to investigate the linkage among strategic complexity and management decision making in SMEs. Additionally, the mediating influence of organizational flexibility was also examined in the above hypothesized linkage. Data was collected through a survey instrument from 976 SMEs owners and managers. Data were analyzed through correlations and regressions analyses following Barron and Kenny's (1986) procedure for establishing mediation. The findings show that strategic complexity and organizational flexibility have a significantly positive linkage with SMEs management decision making. However, the linkages of strategic complexities and management decision making become insignificant in the presence of organizational flexibilities, which affirmed that organizational flexibility has significant and immediate mediating effects in the relationships of strategic complexities and SMEs management decisions making in Pakistan. This study was underpinned to the complexity theory (Monroy, 2003), and have important theoretical and methodological contributions to SMEs research.

Key words: *Strategic complexity; Organizational flexibility; Management decision making; SMEs*

1. Introduction

SMEs constitutes about more than 90 percent businesses all over the world. Furthermore, they provide more than 60 percent of employment (Raza and Majid, 2015). However, Zimmerer, Scarborough and Wilson (2005) reported that most of the businesses particularly SMEs are unsuccessful from the last few years. This demonstrates business failure is an immense issue of SME. Many investigations have proposed that business malfunction is expected to a great extent to a business's inability to decisions making management. As Zimmerer, Scarborough and Wilson (2005) noted that without an obviously characterized system, a business has no practical reason for making and keeping up a focused periphery in the commercial center. This outlook is common in various exact studies that uncover a connection among decision making and businesses achievement (e.g. Schwenk, 1988; Gibson et al, 2002; Rue and Ibrahim, 1998). Management decision making is consequently an imperative research theme for organizational achievement. Research has demonstrated that the higher level malfunction rate of small enterprises, especially of new companies, may be ascribed to the absence of recognized businesses management decision making (Castrogiovanni, 1996). In spite of the important contributions by SME in the Pakistani financial

system, no research has been conducted on SMEs regarding decision making notion.

Decision making referred to the activity or procedure of settling on essential decisions regarding organizations (Papadakis and Barwise, 2012), while management decision making refers to significant actions taken while considering firm resources and precedents sets (Mintzberg, Raisinghani and Theoret, 1976). Humans govern organizations and they are also responsible for organizational decisions, which in turn give actions of organizations. By review necessary literature of SMEs it is revealed that principal decisions makers of SMEs are their owners which also constitute the top level management of the organization in most cases (O' Dwyer, Gilmore and Carson, 2009). On an identical note, Boxer, Perren and Berry (2013) argued that top management team of SMEs with higher job related heterogeneity having higher capability of strategic thinking. When a manager take decisions at top level management in the organizations, sometimes it is considered effective for organization and sometimes it may be criticize. It means that complexities arise, and these complexities have influence on decision making of organizations.

Complexities play an important role in the organizational decisions making. There are different roles which complexity dimensions plays in the stable environment of organization. As observed by Geraldi, Maylor and Williams (2011) the very idea of complexity is related to the internal elements of organizations. This type of complexity is made more

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problematic by the combination of socio political factors while making emotional decisions on the basis of short terms goals. Such a complexity makes the things more troublesome and it is difficult to make decisions which are necessary in unifying the overall organizational structure and interest of the organization. The attitude of the decision makers further aggravate the situation and the aspirations of the organization to make right decisions or dashed to the ground (Iván Tarride and Zuniga (2010). Hence, it was decided to explore the linkages among strategic complexities and SMEs management decisions making in a developing country like Pakistan. Strategic complexity refers to the level of complexity of components of a strategy or the quantity of components of a strategic activity framework (Luhmann, 1985).

The literature reveals various dimensions of strategic complexities. However, this study considers four types of strategic complexities considered by Narver and Slater (1990), that is, competitor, product, customer, and macro-environmental orientations. Customer's orientations highlight the significance of intending purchasers, while competitor's orientations concentrate on present and prospective competitor. The customer's and competitors orientations strategies utilized as a part of this investigation in view of studied conducted by Narver and Slater (1990). Product's orientations are inward orientations highlighting qualities and effectiveness of significant worth commitments. Past studies on product's orientations has given emphasis on the exploration and its impact on strategic issues and hierarchical structure, for the most part in the parts of value (Morgan and Piercy, 1998), effectiveness (Piercy, 1998), and product development (Zhou, Yim and Tse, 2005). Macro-environmental orientations is an authoritative exertion on viewing, reacting, as well as benefiting from issues and styles past the association's instant business. Most current investigations have started to examine the connection among a macro-environmental concentration, strategist market activities, with results, generally in the territories of macro-environmental data (Augusto and Coelho, 2009).

In above context, it was decided to shift the focus of decision makers' scholars towards SMEs. While studying decision making in SMEs, the initial necessary review of literature reveals that organizational flexibility is the other variable that may be important antecedent of SMEs management decision making. Hence, this study entitling "linking strategic complexity to management decision making: mediation of organizational flexibility" is devised. Organizational flexibility can be characterized as the association adjusting to size, arrangement, responsiveness and the general population, their information sources and costs required to accomplished authoritative targets and objectives (Golden and Powell, 2000). The ability to adapt and the flexibility of organizations are crucial for their complexity absorption capability and the

performance of the organization. Complexity theory tries to explain how new patterns, structures and behaviors emerge from this interaction and coevolution. It tries to detect order in continuously changing systems where the laws of cause and effect are not applicable due to unpredictability and irregularities. Complexity theory allows differentiated considerations and new perspectives to understand rapid change and to provide for example a basis for dualism of organizational forms, like the simultaneous presence of hierarchy and empowerment (Monroy, 2003).

In literature two important dimensions of organizational flexibilities are discussed, that is, numerical and functional flexibilities. Numerical flexibility is the capacity of the business organization to modify the amount of work to take care of fluctuation in demands, while functional flexibility refers to the capacity of organizations to move employees to diverse commitments or duties within the businesses. Functional flexibility reflects a group ability to fiddle with changing prerequisites and conditions, and is subjective to obstacles, such as, outsourcing, administration, and preparing. The current study anticipates that these two attributes of organizational flexibilities mediate the linkages among strategic complexity and management decision making of SMEs.

2. Objectives

1. To test the direct linkage among strategic complexity, organizational flexibility, and management decision making of SMEs.
2. To test the mediating influence of organizational flexibility between the linkage of strategic complexity and management decision making of SMEs.

3. Hypotheses and conceptual model

The following main and sub hypotheses have been synthesized in the light of the abovementioned objectives. The main hypothesized links are also shown at the SMEs decision management model (Fig. 1).

H1: Strategic complexities have positive as well as direct influences on management decision making of SMEs.

H1a: Competitor orientations have positive as well as direct influences on management decision making of SMEs.

H1b: Product orientations have positive as well as direct influences on management decision making of SMEs.

H1c: Customer orientations have positive as well as direct influences on management decision making of SMEs. H1d: Macro-environmental orientations have positive as well as direct influences on management decision making of SMEs.

H2: Strategic complexities have positive as well as direct influences on organizational flexibility of SMEs.

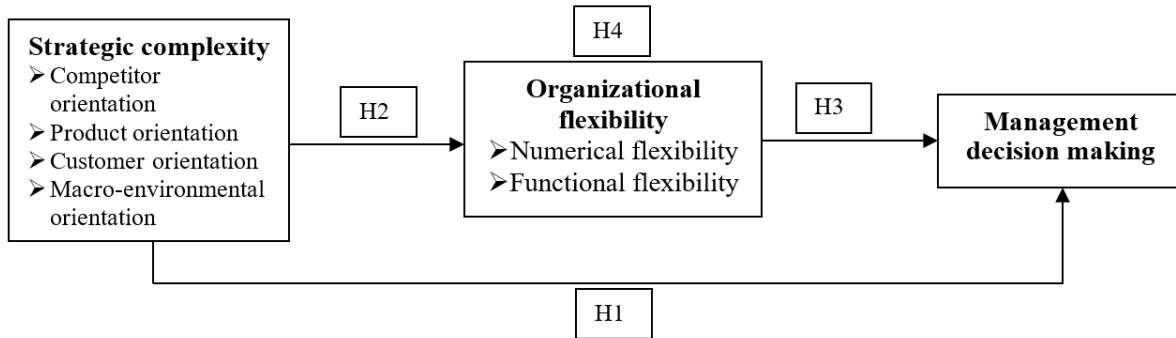


Fig. 1: SMEs management decision model showing hypothesized links

H2a: Competitor orientations have positive as well as direct influences on numerical flexibility of SMEs.

H2b: Product orientations have positive as well as direct influences on numerical flexibility of SMEs.

H2c: Customer orientations have positive as well as direct influences on numerical flexibility of SMEs.

H2d: Macro-environmental orientations have positive as well as direct influences on numerical flexibility of SMEs.

H2e: Competitor orientations have positive as well as direct influences on functional flexibility of SMEs.

H2f: Product orientations have positive as well as direct influences on functional flexibility of SMEs.

H2g: Customer orientations have positive as well as direct influences on functional flexibility of SMEs.

H2h: Macro-environmental orientations have positive as well as direct influences on functional flexibility of SMEs. H3: Strategic complexities have direct and positive influences on management decision making of SMEs.

H3a: Numerical flexibilities have direct and positive influences on SMEs management decision making.

H3b: Functional flexibilities have direct and positive influences on management decision making of SMEs.

H4: organizational flexibility immediately and positively mediates between the linkage of strategic complexity and management decision making of SMEs.

H4a: Numerical flexibility immediately and positively mediates between the linkage of competitor orientation and management decision making of SMEs.

H4b: Numerical flexibility immediately and positively mediates between the linkages of product orientation and management decision making of SMEs.

H4c: Numerical flexibility immediately and positively mediates between the linkages of customer orientation and management decision making of SMEs.

H4d: Numerical flexibility immediately and positively mediates between the linkages of macro-

environmental orientation and management decision making of SMEs.

H4e: Functional flexibility immediately and positively mediates between the linkage of competitor orientation and management decision making of SMEs.

H4f: Functional flexibility immediately and positively mediates between the linkages of product orientation and management decision making of SMEs.

H4g: Functional flexibility immediately and positively mediates between the linkages of customer orientation and management decision making of SMEs.

H4h: Functional flexibility immediately and positively mediates between the linkages of macro-environmental orientation and management decision making of SMEs.

4. Method

An exploratory approach embraced by this investigation and builds up a survey instrument (quantitative research approach) send to Pakistani SMEs from begin of December 2016 to end of April 2017, sending more than 1200 questionnaires to managers and owners of SMEs individuals by visiting in person and sending soft copy through email IDs. Following two months of begin of gathering of information circuitous 245 responses were gotten back. It was seen that accumulation of responses through individual visits have more prominent response rate, at that point the researcher chose that to procure responses through individual visits rather depending on email messages. Every one of these endeavors of conceivable individual visits bear little fruit grown from the ground last reactions came to 976, with response rate of 31.33 percent. Consequently, it was determined to utilize these responses for analyses of the study.

5. Measurements

A survey instrument which was self-administrated in nature was created through a few questions, that is, item of the questionnaire, of

existing measuring instruments and the greater part of things planned from reviewing necessary literature. All of the items of measuring instrument was measurement through 7-points scale of Likert which was varying from 1="strongly-disagreeing" to "7=strongly-agreeing". Points of interest are given underneath.

6. Strategic complexity

The strategic complexity variable was used as an independent variable and four attributes were representing the variable (shown at Fig. 1). All of the four attributers were measured through eighteen items, which were adopted from Neill and Rose (2006) and also used by Cheng and Chang (2010) in their study. The sample items included were: "our company quickly react to competitors activities that undermine us", "our company continually screen our level of sense of duty regarding serving customer's needs", "our company is continually looking for approaches to enhance the conveyance of our services and product", and "in deciding our strategic direction, our company scan for patterns rising outside our industry".

7. Organizational flexibility

The organizational flexibility variable was used as a mediator variable and two attributes were representing the variable (shown at Figure1). All of the two attributers were measured through sixteen items, which were adopted from Boso, Story and Cadogan (2013), MacDuffie (1995) and also used by Worren, Moore and Cardona (2002) in their study. The sample items included were: "our company is fit for modifying the quantity of workers to the need of our business", and "our company alters the substance of work of a person as per organizational needs with regards to the meaning of working assignment by evolving systematization".

8. Management decision making

The management decision making variable was used as a dependent variable and two (shown at Figure1). This variable was measured through seven items, which were adopted from Carmeli, Sheaffer and Yitzack Halevi (2009) and also used by Amason, (1996) in his study. The sample items included were: "to make effective decision our company owners and managers collect required information efficiently and effectively in the accurate amount at precise instance", and "to make effective decisions our company owners and managers has an obvious awareness of the work troubles as well as requirements of their colleagues on the team".

9. Data analyses methods

Prior to examining hypotheses, the fundamentally examination was a reliability test

called Cronbach's alpha, which revealed whether the questions of the survey instrument measured what they anticipated that would. So as to test the hypotheses, applicable tests were used. For instance, correlation test were utilized to gauge the level of relationship between the factors. Baron and Kenny (1986) proposed four stages technique for building up mediation was utilized for testing hypotheses for the present investigation. As per this method, in initial step a significant connection between independent (strategic complexities and attributes) and dependent factors (management decision making) is required. In second step a significant connection between independent and mediating factors (organizational flexibility and attributes) is required. In third step a significant connection is required between mediating and dependent factors. Finally, at fourth step the impact of independent variable (strategic complexities and attributes) on dependent variable (management decision making) ought to be insignificant or diminish the criticalness level significantly within the sight of mediating variable (organizational flexibility). The fourth step will affirms mediation of the mediating variable among the proposed linkages.

10. Results

The values of descriptive and reliability analyses of various variable are revealed at Table 1. Table1 outlines values of the control variables, that is, gender and business size, mean, standard deviation (SD), and values of Cronbach's alpha reliabilities of the each constructs. The Cronbach's alpha reliabilities values reveal that all the constructs were reliable since all the statistics were above the verge value of .70 (Nunnally, 1978). Table 1 also outlines the correlations analyses. This analysis was performed in order to examine any particular pattern and relation among each tested variables. The results reveal that all the examined variable were significantly correlation with one another.

In order to analyze H1of the study, it was further divided into four sub-hypothesis, that is, from H1a to H1d. The beta values (path coefficients) and results of these hypotheses are shown at Table 2.

Accordingly the influence of competitor orientation on management decision making of SMEs is significantly positive ($\beta=0.27$, $p<0.01$). As a result, H1a is accepted. The competitor orientation has significantly positive influence on management decision making of SMEs ($\beta=0.33$, $p<0.01$). As a result, H1b is accepted. The competitor orientation has significantly positive influence on management decision making of SMEs ($\beta=0.25$, $p<0.01$). As a result, H1c is accepted. The competitor orientation has significantly positive influence on management decision making of SMEs ($\beta=0.22$, $p<0.01$). As a result, H1d is accepted. As all the sub- hypothesis from H1a to H1d is accept, hence H1 overall is also accepted. Therefore, Baron and Kenny procedure first requirement is fulfilled regarding SMEs management decision making model shown at Fig. 1.

In order to analyze H2 of the study, it was further divided into eight sub-hypothesis, that is, from H2a

to H2h. The beta values (path coefficients) and results of these hypotheses are shown at Table 3.

Table 1: Descriptive, correlation, and reliability analyses

Variables	Mean	SD	1	2	3	4	5	6	7	8	9
1 Gender	.59	.49	1								
2 Business Size	2.17	.67	.01	1							
3 Comp. O	5.51	.62	.02	.06	(.84)						
4 PO	5.53	.74	-.01	.03	.25**	(.83)					
5 Cust. O	5.57	.62	-.04	-.01	.33**	.33**	(.81)				
6 MEO	5.46	.64	-.01	-.05	.30**	.27**	.41**	(.86)			
7 NF	5.39	.60	-.05	-.04	.33**	.38**	.34**	.35**	(.83)		
8 FF	5.36	.53	-.01	.11*	.36**	.37**	.46**	.30**	.45**	(.85)	
9 MDM	5.27	.63	.02	-.11*	.28**	.27**	.26**	.27**	.28**	.45**	(.88)

Note: *Correlation is significant at the 0.05 level (2-tailed); **Correlation is significant at the 0.01 level (2-tailed); n=976; reliability statistics are show at parentheses

Table 2: Direct influences of strategic complexity on management decision making of SMEs

Hypotheses	Beta (β)	Std. Error	t	Sig.
H1a: Competitor orientation → management decision making	.27**	.05	6.13	.000
H1b: Product orientation → management decision making	.23**	.04	6.18	.000
H1c: Customer orientation → management decision making	.25**	.04	5.60	.000
H1d: Macro-environmental orientation → management decision making	.22**	.04	5.14	.000

*p < 0.05, **p < 0.01; n=976

Table 3: Direct influences of strategic complexity on organizational flexibility of SMEs (H2)

Hypothesis	Beta (β)	Std. Error	t	Sig.
H2a: Competitor orientation → Numerical flexibility	.32**	.04	7.67	.000
H2b: Competitor orientation → Functional flexibility	.27**	.04	7.35	.000
H2c: Product orientation → Numerical flexibility	.28**	.04	8.19	.000
H2d: Product orientation → Functional flexibility	.27**	.03	8.86	.000
H2e: Customer orientation → Numerical flexibility	.32**	.04	7.81	.000
H2f: Customer orientation → Functional flexibility	.35**	.04	9.78	.000
H2g: Macro-environmental orientation → Numerical flexibility	.33**	.04	8.24	.000
H2h: Macro-environmental orientation → Functional flexibility	.26**	.04	7.10	.000

*p < 0.05, **p < 0.01; n=976

Accordingly the influence of competitor orientation on numerical flexibility is significantly positive ($\beta=0.32$, $p<0.01$). As a result, H2a is accepted. The competitor orientation has significantly positive influence on functional flexibility of SMEs ($\beta=0.27$, $p<0.01$). As a result, H2b is accepted. The product orientation has significantly positive influence on numerical flexibility of SMEs ($\beta=0.28$, $p<0.01$). As a result, H2c is accepted. The product orientation has significantly positive influence on functional flexibility of SMEs ($\beta=0.27$, $p<0.01$). Therefore, H2d cannot be rejected. Accordingly the influence of customer orientation on numerical flexibility is significantly positive ($\beta=0.32$, $p<0.01$). As a result, H2e is accepted. The customer orientation has significantly positive influence on functional flexibility of SMEs ($\beta=0.35$, $p<0.01$). As a result, H2f is accepted. The macro-environmental orientation has significantly positive influence on numerical flexibility of SMEs ($\beta=0.33$, $p<0.01$). As a result, H2g is accepted. The macro-environmental orientation has significantly positive influence on functional flexibility of SMEs ($\beta=0.26$, $p<0.01$). As a result, H2h is accepted. As all the sub-hypothesis from H2a to H2h is accept, hence H2 is also accepted.

Therefore, Baron and Kenny procedure second requirement is fulfilled regarding sub-model A.

In order to analyze H3 of the study, it was further divided into two sub-hypothesis, that is, from H3a and H3b. The beta values (path coefficients) and results of these hypotheses are shown at Table 4.

The results of Table 4.show that the influence of numerical flexibility on management decision making of SMEs is significantly positive ($\beta=0.30$, $p<0.01$). As a result, H3a is accepted. The numerical flexibility has significantly positive influence on management decision making of SMEs ($\beta=0.54$, $p<0.01$). As a result, H3b is accepted. As all the sub-hypothesis H3a and H3b is accept, hence H3 overall is also accepted. Therefore, Baron and Kenny procedure second requirement is fulfilled regarding sub-model C.

In order to analyze H4, it was further divided into eight sub-hypotheses, that is, from H4a to H4h. The results of mediation analyses are shown at Table 5.

The results of Table 5 reveals that the linkages of four types of strategic complexities and SMEs management decision making in presence of numerical and functional flexibility are insignificant. While before numerical and functional flexibility introduction into their linkages were significantly

positive. Hence, it is proved according to Baron and Kenny third and fourth steps, those numerical and functional flexibilities (organizational flexibility) prove to be significant mediators in the linkages of

competitor, product, customer, and macro-environmental orientations (strategic complexity) and management decision making of SMEs.

Table 4: Direct influences of organizational flexibility on management decision making of SMEs (H3)

	Hypothesis	Beta (β)	Std. Error	t	Sig.
H3a:	Numerical flexibility → management decision making	.30**	.05	6.51	.000
H3b:	Functional flexibility → management decision making	.54**	.05	11.22	.000

*p < 0.05, **p < 0.01; n=976

Table 5: Mediation influences of organization flexibility (strategic complexity – management decision making) (H4)

	Hypothesis	Beta (β)	Std. Error	t	Sig.	R	R ²	F
H4a:	Compt.O (via NF) → MDM					.34	.11	31.33
	Compt.O	.07	.04	1.33	.111			
H4b:	NF	.30**	.06	4.83	.000			
	PO (via NF) → MDM					.33	.10	44.21
H4c:	PO	.06.	.03	0.25	.127			
	NF	.24**	.05	2.88	.000			
H4d:	Cust.O (via NF) → MDM					.50	.25	79.35
	Cust O	.08	.03	3.12	.101			
H4e:	NF	.46**	.05	9.55	.000			
	MEO (via NF) → MDM					.39	.15	43.39
H4f:	MEO	.04	.03	0.40	.461			
	NF	.23**	.04	5.18	.000			
H4g:	Compt.O (via FF) → MDM					.44	.20	57.36
	Compt O	.05	.03	0.46	.198			
H4h:	FF	.29**	.05	5.83	.000			
	PO (via FF) → MDM					.54	.19	84.14
H4i:	PO	.04	.03	0.69	.277			
	FF	.33**	.05	7.88	.000			
H4j:	Cust.O (via FF) → MDM					.63	.12	66.53
	Cust O	.06	.03	1.32	1.21			
H4k:	FF	.41**	.04	8.44	.000			
	MEO (via FF) → MDM					.55	.22	49.91
H4l:	MEO	.07	.02	0.98	.615			
	FF	.53**	.06	9.67	.000			

*p < 0.05, **p < 0.01; n=976

11. Discussion

The main findings of this dissertation are underpinned to the aims of this paper. The first aim of this paper was “to test the direct linkage among strategic complexity, organizational flexibility, and management decision making of SMEs”. In order to examine empirically the first aim of the paper three main hypotheses were stated from H1 to H3 (Fig. 1). H1 of the study was about the strategic complexity influence on management decision making of SMEs. This H1 was further divided into four sub-hypotheses from H1a to H1d. The results of H1 reveal that all of four sub-hypotheses were accepted and consequently H1 also accepted. These findings reveal that strategic complexity and its attributes were significantly predictors of management decision making of SMEs. Furthermore, to scholar’s knowledge to-date no previous study was found on strategic complexity influence on management decision making of SMEs in both large and SMEs focused literature. Therefore, it is a novel finding of this study, which should be interesting to be noted by scholars. These findings also fulfilled Baron and

Kenny’s procedure first requirement for establishing mediation.

H2 of the study was about the strategic complexity influence on organizational flexibility of SMEs. This H2 was further divided into eight sub-hypotheses from H2a to H2h. The results of H2 reveal that all of eight sub-hypotheses were accepted and consequently H2 also accepted. These findings reveal that strategic complexity and its attributes was significantly predictor’s of SMEs organizational flexibility. Furthermore, to scholar’s knowledge to-date no previous study was found on strategic complexity influence on organizational flexibility of SMEs in both large and SMEs focused literature. Therefore, it is a novel finding of this study, which should be interesting to be noted by scholars. These findings also fulfilled Baron and Kenny’s procedure second requirement for establishing mediation. H3 of the study was about the organizational flexibility influence on SMEs management decision making. This H3 was further divided into two sub-hypotheses, that is, H3a and H3b. The results of H2 reveal that all of two sub-hypotheses were accepted and consequently H3 also accepted. These findings

reveal that organizational flexibility and its attributes was significantly predictor's of SMEs management decision making. Furthermore, to scholar's knowledge to-date no previous study was found on organizational flexibility influence on management decision making of SMEs in both large and SMEs focused literature. Therefore, it is a novel finding of this study, which should be interesting to be noted by scholars. As a result of these findings and analyses all the sub-objective of the objective 1 of the paper was fulfilled.

The second aim of this paper was "to test the mediating influences of organizational flexibilities between the linkage of strategic complexity and management decision making of SMEs". With the aim of to examine empirically the second aim of the paper, one main hypothesis were stated, that is, H4 (Fig. 1). This H4 was further divided into eight sub-hypotheses from H4a to H4h. The results of H4 reveal that all of eight sub-hypotheses were accepted and consequently H4 also accepted. Which means that organizational flexibility have a immediately significant mediating influence in the link of strategic complexities of SMEs and management decision making of SMEs. Moreover, to scholar's knowledge to-date no previous study was found on strategic complexity influence on management decision making of SMEs in both large and SMEs focused literature. Therefore, it is a novel finding of this study, which should be interesting to be noted by scholars.

This study contributions regarding theoretical perspective is consisted of the conclusions that strategic complexity, and organizational flexibility attributes have influences on management decision making of SMEs. In addition, the mediating influence of organizational flexibility was also examined. These relationships were proven by conducting correlation, and regression analyses. Hence, it was revealed that there are relationships among strategic complexity, organizational flexibility, and management decision making of SMEs underpinning to the Complexity theory (Williams, 1997). Hence, it is estimated that the findings of this paper have significantly contributed to the complexity theory.

This study has contributed two major contributions on methodological perspectives: first, this study formulates a SMEs management decision making model which were examined through various tests; second, this study tested a novel model for direct linkages among strategic complexity, organizational flexibility, and management decision making of SMEs, more, this relationship were consisted of mediated links, which were examined through data collected through survey instrument.

The first contribution regarding methodological perspectives was a result of the explorative nature of this study. The analyses showed that strategic complexity consists of four different attributes, which have influences on organizational complexity and its two attributes, which in turn determine SMEs management decision making. These attributes can also be considered while considering future research

work. The variable of organizational flexibility considered in this study show a pattern on how SMEs recognize strategic complexity and how strategic complexity recognize management decision making. Alternatively, it can be concluded that SMEs can see management decision making concept as more significant, something worth mentioning that can be consider in future.

Management decision making is a fairly novel research notion in SMEs, and hence also lacking established measurement instruments. Nevertheless, based on literature and previous established instruments present on each individual variable, this study borrows some items from them and developed a novel instrument that has been validated in measuring strategic complexity organizational flexibility, and management decision making in SMEs for the first the time ever. This instrument can also be employed for future SMEs studies as well.

12. Limitation and future direction

The findings of this dissertation advocates how to measure SMEs management decision making how different determinants like strategic complexity, organizational flexibility, and their attributes contributes to SMEs management decision making model. Quantitative approach was used and the data was gathered with a time limitation. Hence longitudinal studies with qualitative approach are recommended for future research to be conducted. The findings of such type of approach applied could be interesting and will also present rationales behind present results and findings. Qualitative approaches will presents more in-depth understanding to the knowledge regarding linking strategic complexity in SMEs management decisions making. The findings also reveals that most of the links are examine for the first time in developing country context of SMEs. However, developed countries context is also required on the same links. A relative research of developed and emerging countries on the same model will also be read with curiosity. A sample from large enterprises would also be considered a valuable addition to the relevant knowledge.

Addition and subtraction of other variables in the hypothesized model of this model would also be another important contribution. At last, it is also suggested for upcoming research work to think about cultural as well as socioeconomic context effects in management decision making model. An identical study in another developing country other than Pakistan might produce unusual findings.

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