THE IMPACT OF BEHAVIORAL COMPLEXITY ON EXPLOITATIVE AND EXPLORATIVE BEHAVIOR AMONG OWNER-MANAGERS OF SMES IN MALAYSIA

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ABSTRACT

In this research we explore the effects of behavioral complexity on the development of exploitative and explorative behaviors. Structured questionnaires were collected among 183 owner-managers of Small and Medium Enterprises (SMEs) in Malaysia. The analysis of data carried out using SmartPLS 3.2.3. The analysis reveals that collaborate and control behavioral role positively predicts exploitative behavior while collaborate, control and create behavioral role positively predicts explorative behaviors. This study contributes by providing a better understanding of how exploitative and explorative behaviors are influenced and developed on the individual level. The research postulates that support of such behaviors would ultimately promote ambidextrous behaviors resulting in long term survival for SMEs in Malaysia.

Keywords: Exploitative Behaviors, Explorative Behaviors, Behavioral Complexity, SMEs, Malaysia.

INTRODUCTION

Worldwide, SMEs has revolutionized business environment and often depicted as the main driver of the economy by creating wealth and providing jobs to the local community that they are situated in. SMEs should be viewed main contributor in stimulating long-term development of economy in many nations as SMEs accounts for more than 90 locally (Hashim, 2005; Tung & Aycan, 2008). Based on 2011 Malaysia economic census, SMEs in Malaysia consist of 97.3% from 662,939 units of total business establishment in the country (Department of Statistic Malaysia, 2017). SMEs in Malaysia recorded a significant double digit growth of 13.6% for 2014 and the share of SMEs to GDP raise significantly from 33.5% in 2014 to 36% for year 2014 (SME Annual Report 2014/2015). However, the contribution rate of SMEs to GDP of in Malaysia is relatively low as compared other nations. SMEs in Korea and Singapore contributes a total of 53% and 49% respectively, meanwhile in Thailand, SMEs contributes a total of 38% to the nation's GDP (SME Annual Report 2009/2010). This indicates that the growth potential among Malaysian SMEs need to be further refine to enable for a larger contribution to the nation.

A growing number of researches highlighted the benefits of being exploitative and explorative both on the organization level and individual level (Junni et al., 2013). Such capabilities are extremely beneficial for SMEs as they often face multiple constraints from both internal and external resources. A shortage of resource forces owner-managers to be ambidextrous in managing challenges faced by the organization. Hence SMEs are more likely to

be both exploitative and explorative (Cao et al., 2009) in order to address and overcome these shortcomings. March (1991) first introduced these two concepts exploitative and explorative behaviors. Exploitative relate behaviors in the refinement of existing competencies while explorative relate behaviors in searching for new knowledge or opportunity (March, 1991). These behaviors are seen as integral to a firm's profitability and long-term sustainable (Cao et al., 2009). These contradictions have been positively linked to firm's performance, innovation, sales growth and firm survival (Junni et al., 2013; O'Reilly & Tushman, 2013). Thus the development of exploitative and explorative behaviors is expected positively contribute to SMEs.

Individual of SMEs need to actively reconfigure available resources and capabilities, through new patterns of integration in producing new value to sustain growth and profit. Such complexity of organizing and managing resources demands owner-managers to be competent and capable in sensing and seizing new opportunities in a dynamic business environment (Teece et al., 2014). However, the reconfiguration of available resources and capabilities remains vague among SMEs, even more so on an individual level. The contradiction between exploitative and explorative behaviors compels owner-managers to behave erratically. These erratic behaviors force the individual to be competent in multiple skills. Therefore, to foster these dynamic behaviors, owner-managers must address the notion of behavioral complexity to inculcate the explorative and exploitative behaviors. In short, the purpose of this paper is to explore the relationship between behavioral complexity with explorative and exploitative behavior.

LITERATURE REVIEW

Behavioral Complexity

Denison et al. (1995) define behavior complexity as the ability for someone to "perform the multiple roles and behaviors that circumscribe the requisite variety implied by an organizational or environmental context. The notion of behavioral complexity traces back to Competing Value Framework (CVF). The framework attempts to measure organizational effectiveness. CVF is defined by two competing values: Flexible versus Stable structures and Internal versus external focus. Cameron et al. (2006) simplified the framework to compete, control, create and collaborate for easier adoption on organizational and individual level. The framework is often assumed to be mutually exclusive and neglect the dynamic context of an organization (Lawrence et al., 2009). As the internal and external environment rapidly changes, individuals who are able to manage opposing tensions are likely to retain greater adaptability and capacity (Weick, 2003) to manage multiple competing needs of the organization (Lawrence et al., 2009). Individual's ability to integrate competing needs is best indicated by the performance of each role. Researchers argued that leaders who can balance or diversify their behaviors across the competing values dimensions are likely to have a high degree of behavioral complexity and better suited to different organizational demands (Hooijberg & Quinn, 1992).

Behavioral complexity represents a wide range of behaviors that a leader is capable of performing and these behaviors are summarized into four roles-compete, control, collaborate and create (Lawrence et al., 2009) (Table 1). Compete roles refer to planning, goal setting and productivity, that is characterized by an external focus (e.g., benchmarking to competitor performance and profitability) and structural controls (e.g., goal setting and process monitoring) (Quinn & Rohrbaugh, 1983; Lawrence et al., 2009). Collaborate roles refer to cohesion, morale and training, that is characterized by an internal focus (development of internal capability, specifically, human resource development) and a flexible management approach characterized

by participative decision making, empathic relationships (Quinn & Rohrbaugh, 1983; Lawrence et al., 2009). Control roles refer to information management, stability and control, that is characterized by an internal focus (e.g., establishing routine, buffering against external disruption) and hierarchical control (e.g., having in place clear and immutable lines for reporting, approval and communication) (Quinn & Rohrbaugh, 1983). Create roles refer to adaptation and growth that is characterized by an external focus (e.g., market growth and competition) and flexible organizational structures (e.g., flat hierarchies, cross-functional teams) (Quinn & Rohrbaugh, 1983; Lawrence et al., 2009).

Table 1
BEHVAIOURAL COMPLEXITY
(Lawrence et al., 2009)

		Focus Dimension	
		Internal Structure	**External Structure**
Structure Dimension	**Flexible Structure**	**Collaborate** -Encouraging Participation -Showing Concern -Developing People	**Create** -Initiating Significant Change -Anticipating Customer Needs -Inspiring People to Exceed Expectation
	Stable Structure	**Control** -Expecting Accurate Work -Controlling Projects -Clarifying Policies	**Compete** -Modelling A Hard Work Ethic -Focusing on the Competition -Emphasising Speed

Individuals must be able to engage multiple behavioral roles in addressing the dynamic changes in the business environment (Tsui, 1984). Behavioral complexity demand individuals to be loose and strict, creative and routine and formal and informal at the same time. Smith & Lewis (2011) suggested that managing paradoxical tensions helps individuals, groups and firms to be flexible and resilient, fostering more dynamic decision making. Researchers observe that individuals with balance competing roles have a higher likelihood to be more effective and achieve better performance (Bullis et al., 1992; Denison et al., 1995; Hooijberg, 1996; Hooijberg & Quinn, 1992) however what remains unclear, though, is 'the degree to which behaviors from all quadrants need to be equally available' (Lawrence et al., 2009).

Ambidexterity: Exploitative and Explorative Behaviors

Ambidexterity refers to the ability to explore new opportunities while simultaneously exploiting existing competencies (Kauppila & Tempelaar, 2016; Cao et al., 2009; Tushman & O'Reilly, 1996). The two concepts that embody ambidexterity are exploitation and exploration behaviors. The theory of dynamic capability stresses on the urgency to reconfigure existing competencies and establish new competencies in response to dynamic business environment. Implied in the theory is that owner-managers who form the backbone of the firm must be able to seamlessly carry out both exploitative and explorative behaviors. Both behaviors are not only distinct dimensional behaviors but are also mutually enabling (Farjoun, 2010; Holmqvist, 2004). When an individual explores, he/she simultaneously creates new opportunities to exploit, while when an individual is exploiting, he/she simultaneously refines their knowledge and expertise that contribute to exploration (Kauppila & Tempelaar, 2016).

Explorative behaviors increases the breadth of knowledge, thus creating prospects for radical changes, while exploitative behaviors increases the depth of knowledge, which typically leads to incremental development and enhanced reliability (Benner & Tushman, 2003). Exploitative and explorative behaviors is often reflected in the decisions and routines made by owner-managers that would ultimately enable the firm to sense and seize new internal or external opportunities through reconfiguring of resources (O'Reilly & Tushman, 2013; Faizah, Hazlina & Osman, 2016). Gupta et al. (2006) acknowledged that at the individual level is the most difficult to attain both exploitative and explorative behaviors due to the contradicting demands faced by the individual (Kauppila & Tempelaar, 2016). Raisch et al. (2009) suggested that performing both explorative and exploitative action are heavily influenced by individual characteristics and ambidextrous individuals must manage contradictions and conflicting goals, engage in paradoxical thinking and fulfill multiple roles.

On an individual level, the person must be able to combine both exploitative and explorative behaviors in daily routines (Bledow et al., 2009; Mom et al., 2009; Kauppila & Tempelaar, 2016). Individual's resources such as time and knowledge will limit (March, 1991) and restrict their pursuant of both exploitative and explorative activities adequately (Ambos et al., 2008; Gupta et al., 2006). Weick (2003) states that if an individual is able to combine both opposing behaviors, that individual would possess greater adaptability to shifting demands according to its environment. Finding the right balance between exploration and exploitation remains vague till these days, concentrating all effort alone on exploitation while neglecting exploration could benefit firms in the short run, while directing all effort on exploration alone could spell disastrous towards the long run survival of many organizations (March, 1991; O'Reilly & Tushman, 2013). There is a need for more empirical research on the development of exploitative and explorative behaviors at the individual level (Mom et al., 2009; Kauppila & Tempelaar, 2016) in the context of developing nations. Thus, in this study addresses this gap by examining the relationship between behavioral complexity (e.g. create, compete, control and collaborate behavioral roles) and exploitative and explorative behaviors which is depicted in Figure 1. The above discussion leads to the following hypotheses.

H_1: *Collaborate roles positively influence exploitative behavior.*

H_2: *Collaborate roles positively influence explorative behavior.*

H_3: *Create roles positively influence exploitative behavior.*

H_4: *Create roles positively influence explorative behavior.*

H_5: *Control roles positively influence exploitative behavior.*

H_6: *Control roles positively influence explorative behavior.*

H_7: *Compete roles positively influence exploitative behavior.*

H_8: *Compete roles positively influence explorative behavior.*

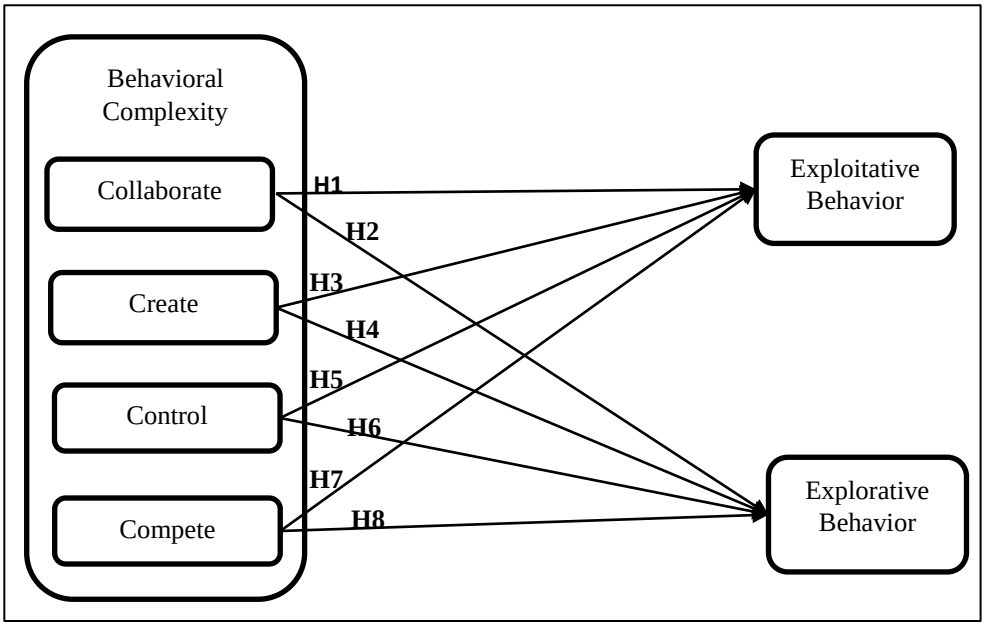

FIGURE 1
RESEARCH FRAMEWORK

METHODOLOGY

This study is cross sectional in nature. The respondents are managers and entrepreneurs of SMEs located in Klang Valley. A structured survey instrument is used to collect the data. This study adopted the 36 items measuring behavioral complexity comprising of four different roles (i.e. create, compete, collaborate and control) developed by Lawrence et al. (2009). The create roles subscale consisted of 9 items (α=0.78), the compete subscale consisted of 9 items (α=0.74), the collaborate subscale consisted of 9 items (α=0.68) and the control subscale consisted of 9 items (α=0.85). As for the explorative and exploitative behavior-14 items were adopted from Mom et al. (2009). The explorative behavior subscale consisted of 7 items (α=0.90) and the exploitative behavior subscale consisted of 7 items (α=0.87). This study adopted statistical procedure by Lubatkin et al. (2009) where an additive index was used to conceptualize exploitative and explorative behaviors.

In determining the sample size, Kline (2005) recommended to estimate the minimum sample size by using G*Power 3.1 program (Faul et al., 2009). Using this software, the estimated sample size would be 98 respondents with the power at 95%, alpha at 0.05 with medium effect size of 0.15. SME Corporation Malaysia provided a list of 11,084 SMEs in Selangor and Kuala Lumpur. The directory provided by SME Corp was scanned to remove companies that have ceased to exist. A simple internet search reveals that a total of 4,623 SMEs have ceased its operation before October 2015. Thus these firms were removed from the directory and would not be considered for sampling. The remaining total of 6,461 firms was then keyed into SPSS v.23. A total of 1,000 randomly select cases were generated from SPSS which constitute the sample of the present study. The administration of this research was done through questionnaire distribution via email and a total of 183 useable responses were collected. Of 1000 owner-managers of SMEs that were invited via email to participate in this study, a total of 220 firms completed the survey which makes a total of 22% of response rate. A total of 37 responses were

removed due to incomplete and non-variance responses. See Table 2 for details of the characteristics of the respondents.

Table 2
SAMPLE CHARACTERISTICS

Profile		Frequency (%)
Gender	Male	118 (64.5)
	Female	65 (35.5)
Age	25 Years old & Below	27 (14.8)
	26-35 Years old	109 (59.6)
	36-45 Years old	31 (16.9)
	46 Years old & Above	16 (8.8)
Ethnicity	Malay	20 (10.9)
	Chinese	144 (78.7)
	Indian	12 (6.6)
	Indigenous	7 (3.8)
Types of Industry	Service	148 (80.9)
	Manufacturing	13 (7.1)
	Others	22 (12)
Position in The Firm	Owner	73 (39.9)
	Manager	110 (60.1)
No. of Fulltime Employees	Less than 50	141 (77)
	51-100	14 (7.7)
	101-150	17 (9.3)
	151-200	11 (6)
Year of Establishment	Less than 5 Years	103 (56.3)
	6-10 Years	29 (15.8)
	11-15 Years	19 (10.4)
	More than 15 Years	32 (17.5)

Data Analysis

The survey questionnaire was filled by key informants of the organizations, which means that there is a potential to have a common method variance (Malhotra & Birks, 2006). Common method bias or Common Method Variance (CMV) refers to the variance traceable to measurement method rather than to the construct or constructs purportedly represented by the measures (Podsakoff et al., 2003). In testing for CMV, Harmans Single factor test was run. The results returned a 14 factor with a total variance explained of 71.87% and the first factor explained 28.09% which indicated that there is no serious common method bias in this research (Podsakoff et al., 2003).

Assessment of Measurement Model

The proposed model was tested using Partial Least Square-Structural Equation Modeling (PLS-SEM) a second generation multivariate technique (Ringle et al., 2015), which evaluates both measurement and structural models to minimize error variance (Hair et al., 2013). The present study adopts second-order reflective-formative constructs for behavioral complexity, hence PLS-SEM is an appropriate tool to estimate the postulate the relationship hypothesized in the theoretical framework. In PLS-SEM model, the estimation follows a two-step approach

which involves measurement and structural model (Henseler et al., 2009; Hair et al., 2016). In evaluating the composite reliability and indicator reliability of the measurement model, the rule of thumb for factor loadings should be above 0.5 (Hair et al., 2016), composite reliability should be above 0.7 (Hair et al., 2016) and Average Variance Extracted (AVE) should be above 0.5 (Henseler et al., 2009; Hair et al., 2016). The results indicated that the item loadings were ranged from 0.669 to 0.922, while composite reliability and AVE values were ranged from 0.831 to 0.922 and 0.596 to 0.798 (See Table 3). As for the second order factor in this analysis, a repeat indicator approach was adopted in modeling the construct (Hair et al., 2016). All items met the minimum cut off value, thus indicating sufficient convergent validity. Both exploitative and explorative behaviors were modeled as a single item construct, thus validity and reliability assessments were not necessary.

Table 3
ITEMS, LOADINGS, AVERAGE VARIANCE EXPLAINED AND COMPOSITE RELIABILITY

First-Order Construct	Items	Loadings	AVE	CR
Exploitative Behaviour	AB_Exploit	SIC	SIC	SIC
Explorative Behaviour	AB_Explore	SIC	SIC	SIC
Encouraging Participation	BC1	0.868	0.769	0.909
	BC2	0.858		
	BC3	0.905		
Developing People	BC4	0.829	0.723	0.886
	BC5	0.881		
	BC6	0.839		
Acknowledging People's Needs	BC7	0.890	0.788	0.918
	BC8	0.882		
	BC9	0.891		
Anticipating Customer's Needs	BC10	0.856	0.683	0.866
	BC11	0.821		
	BC12	0.801		
Initiating Significant Change	BC13	0.798	0.744	0.897
	BC14	0.920		
	BC15	0.865		
Inspiring People to Exceeds Expectations	BC16	0.867	0.699	0.874
	BC17	0.885		
	BC18	0.750		
Clarifying Policies	BC19	0.849	0.798	0.922
	BC20	0.922		
	BC21	0.908		
Expecting Accurate Work	BC22	0.880	0.737	0.894
	BC23	0.847		
	BC24	0.849		
Controlling Projects	BC25	0.669	0.596	0.815
	BC26	0.835		
	BC27	0.802		
Focussing on Competition	BC28	0.885	0.721	0.885
	BC29	0.900		
	BC30	0.755		
Showing a Hard Work Ethic	BC31	0.872	0.737	0.893
	BC32	0.886		
	BC33	0.816		

Emphasizing Speed	BC34	0.838	0.725	0.888
	BC35	0.884		
	BC36	0.831		

Note: SIC=Single Item Construct, AVE=Average Variance Extracted, CR=Composite Reliability.

As for reflective-formative second order organizational context, collinearity test on the index indicates minimal collinearity with the Variance Inflation Factor (VIF) below the cut-off value of 5 (Hair et al., 2016). Hence collaborate, create, control and compete does not correlate perfectly and exhibits discriminant validity, which is desirable because high multicollinearity would challenge assessments of component validity (Diamantopoulos & Winklhofer, 2001). Since PLS-SEM does not assume a normal distribution (Hair et al., 2016), the researcher applies bootstrapping routine to determine the level of significance of each indicator weight. The components weights for encouraging participation was 0.454, developing people were 0.463 and acknowledging personal need was 0.300 suggests that each component is an important determinant of collaborate. The components weights for anticipating customer needs was 0.375, initiating significant change was 0.394 and inspiring people to exceed expectations was 0.410 suggests that each component is an important determinant of create. The components weights for clarifying policies was 0.382, expecting accurate work was 0.387 and controlling projects was 0.410 suggests that each component is an important determinant of control. The components weights for focusing on competition was 0.353, showing a hard work ethic was 0.450 and emphasizing speed was 0.560 suggests that each component is an important determinant of compete. As for the significant, all the 12 variables were significant to their respective construct ranging from 8.577 to 19.006. The results were summarized in Table 4.

Subsequently, the discriminant validity was assessed. It was observed that all constructs fulfill Fornell-Larcker criterion, where discriminant validity is established if a latent variable accounts for more variance in its associated indicator variables than it shares with other constructs in the same model (Fornell & Larcker, 1981) (See Table 5). A new and alternative method, Heterotrait-Monotrait (HTMT) was introduced and found to be more suitable as compared to Fornell-Larcker criterion (Henseler et al., 2015). The evaluation for HTMT is to observe whether the ratio approaches 1.0, which if it so, would indicate an issues with discriminant validity (Voorhees et al., 2015). Henseler et al. (2015) suggested a cut off value of 0.85 or 0.90 in determining any issues with discriminant validity. Using a cut off value of 0.85, all constructs were below 0.85 thus fulfilling HTMT criterion (See Table 6).

Table 4
VARIANCE INFLATION FACTOR AND OUTER WEIGHTS FOR SECOND-ORDER CONSTRUCT

Second-Order Construct	First-Order Construct	Weights	T-Value	VIF
Collaborate	Encouraging Participation	0.454	12.823	1.434
	Developing People	0.463	16.554	1.595
	Acknowledging Personal Needs	0.300	10.265	1.565
Create	Anticipating Customer Needs	0.375	15.350	1.588
	Initiating Significant Change	0.394	19.009	2.111
	Inspiring People to Exceed Expectations	0.410	14.479	1.782
Control	Clarifying Policies	0.382	11.585	1.346
	Expecting Accurate Work	0.387	10.757	1.468
	Controlling Projects	0.469	14.486	1.734
Compete	Focussing on Competition	0.353	8.577	1.224

	Showing a Hard Work Ethic	0.450	12.728	1.470
	Emphasizing Speed	0.560	14.051	1.542

Table 5
FORNELL-LARKCER CRITERION

	1	2	3	4	5	6
1. Collaborate	**0.738**					
2. Compete	0.464	**0.673**				
3. Control	0.465	0.640	**0.690**			
4. Create	0.631	0.608	0.554	**0.676**		
5. Exploitative Behaviour	0.405	0.465	0.529	0.372	**1.000**	
6. Explorative Behaviour	0.612	0.376	0.278	0.641	0.416	**1.000**

Table 6
HTMT OUTPUT

	1	2	3	4	5	6
1. Collaborate						
2. Compete	0.527					
3. Control	0.528	0.767				
4. Create	0.711	0.705	0.625			
5. Exploitative Behavior	0.425	0.505	0.567	0.401		
6. Explorative Behavior	0.646	0.398	0.291	0.687	0.416	-

Assessment of Structural Model

To evaluate the structural model, the path analysis was conducted to test the ten hypotheses outlined in this study. R^2 indicates the amount of variance explained by the exogenous variable. The R^2 for explorative behavior was 0.448 which indicates that 44.8% of the variance is explained by behavioral complexity, whereas for exploitative behavior, the R^2 value was 0.262 which indicates 26.2%. Using bootstrapping techniques of 5000, the path estimates and t-statistics were then examined the hypothesized in this study.

Table 7 shows a summary of structural modal analysis. From the analysis, it was found that collaborate (β=0.190, $p<0.05$) and control (β=0.354, $p<0.05$) were positively related to exploitative behavior, while collaborate (β=0.377, $p<0.01$), control (β=-0.182, $p<0.05$) and create (β=0.494, $p<0.01$) were positively related to explorative behavior. Effect size in the present study was examined based on Cohen (1988) guideline which states that f^2 is small effect ranging from 0.02-0.14, medium effect ranging from 0.15-0.34 and large effect ranging from more than 0.35 on the exogenous variable to endogenous variable. The findings are summarized in Table 7. As for the predictive relevance (Q^2), which is assessed through blindfolding procedure? This procedure is relevant for endogenous model with reflective items and single item construct, which examine the capabilities of the exogenous variables in predictive relevance of the endogenous variable (Hair et al., 2016). The findings indicated that the predictive validity for all exogenous variables were ranged between 0.262 to 0.448 with all the predictive values of exogenous variables are greater than zero. Therefore, the model is considered to have predictive validity (Hair et al., 2016).

Table 7
STD. BETA, STD. ERROR, T-VALUE, EFFECT SIZE, VARIANCE EXPLAINED AND PREDICTIVE RELEVANCE

	β	Std Error	T-Value	Decisions	f^2	Effect	R^2	Q^2
Collaborate -> Exploitative Behaviour	0.190	0.090	2.109*	H_1 Supported	0.031	Small	0.329	0.262
Collaborate -> Explorative Behaviour	0.377	0.063	5.952**	H_2 Supported	0.167	Medium	0.504	0.448
Compete -> Exploitative Behaviour	0.185	0.108	1.720	H_3 Not Supported				
Compete -> Explorative Behaviour	0.017	0.082	0.207	H_4 Not Supported				
Control -> Exploitative Behaviour	0.354	0.112	3.167*	H_5 Supported	0.100	Small		
Control -> Explorative Behaviour	-0.182	0.073	2.491*	H_6 Supported	0.036	Small		
Create -> Exploitative Behaviour	-0.057	0.114	0.496	H_7 Not Supported				
Create -> Explorative Behaviour	0.494	0.084	5.907**	H_8 Supported	0.226	Medium		

**p<0.01, *p<0.05, f^2=Effect Size, R^2=Variance Explained, Q^2=Stone-Geisser Predictive Relevance (Bootstrapping=5000, Omission Distance, D=7).

DISCUSSIONS

The main objective of this study is to examine the relationship between behavioral complexity (e.g. create, compete, control and collaborate roles) with exploitative and explorative behaviors. Surprisingly, the study reveals that compete and create roles had no significant impact on exploitative behaviors. Collaborate and control roles were found to be significant on exploitative behaviors. Compete roles had no significant impact on explorative behaviors. However, collaborate, control and create roles have significant impact on explorative behaviors.

The data indicates no significant relationship between both competes and creates roles and exploitative behavior. A plausible explanation is that an existing organization's routines and process would have already been established even as owner-managers exploit them. Create roles seem unnecessary to be carried out in achieving exploitative behavior where the process of accomplishing mundane day to day tasks would have been established in the firm. These activities can be run without any guidance or input from anyone. Notably, exploitative behaviors focus on efficiency of task and utilizing existing resources. If changes were to occur, individuals in the firm would need to adapt and adjust to the changes thus, reducing their overall efficiency. As for compete roles, competing with fellow members in the firms are often times counter-productive for SMEs. Teamwork is more evident among SMEs due to their lacking of manpower and resources. Collaborate and control roles are closely aligned with the concept of exploitative behaviors. Developing members in the organization, insisting on work to be done correctly and focusing on speed are the hallmarks of improving efficiency in an organization. Thus, performing both collaborate and control roles are vital in cultivating exploitative behaviors

Interestingly, the data indicates no significant relationship between compete roles and explorative behaviors. Compete roles includes focusing on competition, showing a hard work ethic and emphasizing on speed, which are not concurrent with explorative behaviors. Emphasizing on speed in exploring for new opportunities outside the organization and competing among owner-managers would be counterproductive. It might be years for an organization to explore and develop new opportunities domestically or abroad. Owner-managers are more likely to take decision cautiously in order to minimize chance for failure. Emphasis on teamwork in SMEs would result in more positive results. When focusing on exploration, behaviors like mimicking your competitors, completing the task as quick as possible or heavily emphasizing on work ethics are not suitable as seeking external opportunities as it requires time to develop,

flourish and often this cannot be rush (Teece et al., 2014). Thus, performing collaborate, control and create are vital in cultivating explorative behaviors.

The ability to balance and be skilled in all four quadrants is more likely to exhibit a wide array of role strengths and may lead to an improvement of performance as the situations demands (Lawrence et al., 2009). Managers must have an internal balancing mechanism to switch from one role to the next depending on whether the task at hand requires exploitative or explorative behaviors. Owner-managers' ability to perform and regulate these behaviors is fundamental as the business environment changes rapidly for SMEs. Findings from this study provide evidence to attest that owner-managers' behavioral complexity significantly impacts on exploitative and explorative behaviors. Embarking in exploitative and explorative behaviors simultaneously, will result in securing both short and long term competitive advantages. This concerted effort will ultimately bring more profit into the firm. Firms will benefit through exploiting of existing resources in the short run while in the long run, exploration will benefit the firm by ploughing and developing new and upcoming trends for the consumers.

Limitations and Future Research

This research is not without its limitations which some of it, suggest avenues for future study. Firstly, further studies would need to be carried out to understand how these complexity and contradiction changes over time. While a cross-sectional research is useful, a more dynamic perspective in a mixed method study would provide deeper insight. Collecting interviews of respective owner-managers in combination with a longitudinal research would enable researchers to better appreciate the context of these complexity and contradictions. Secondly, since the sample of this study focused on owner-managers of firms located in Selangor and Kuala Lumpur, Malaysia, the generalizability of the result somewhat limited. Thus, there is a need for this study to be repeated in other developed and developing nations to more systematically investigate how behavioral complexity impacts exploitative and explorative behaviors.

This study is limited as it only investigates the dimension of behavioral complexity and exploitative and explorative behaviors. Hence, this paper provides an incomplete perspective on roles affecting exploitative and explorative behaviors. Therefore, more studies that look into additional aspects such as leadership, cultures and firm's performance management systems and their impact on ambidextrous behaviors would provide a more holistic picture in shaping individual behaviors. Furthermore, the data regarding the extent to which individual exploitative and explorative behaviors were self-reported. Future research should combine both managers and direct report employees in evaluation of exploitative and explorative behaviors. As these contradictions often times do not affect owner-managers only, a more integrated approach would need to be adopted to provide a more comprehensive picture.

Conclusion

The results indicated that Malaysian SMEs owner-managers are not generating sufficient returns due to their current competitive capabilities. SMEs need to sense, seize and reconfigure their assets to maintain their competitive capabilities that would ultimately enable them to compete both locally and internationally. Capabilities such as exploitative and explorative behaviors would, in the long run, bolster the growth and performance of SMEs.

SMEs are constantly challenged with limited resources coupled with a hostile dynamic environment. These challenges further emphasize and motivate firms to establish dynamic

capability with minimal impact on their resources. Based on the study, behavioral complexity has significant impact on exploitative and explorative behaviors, which leads to the establishment of ambidextrous behaviors. Hence it is important for the entire firm as a whole in formulating and cultivating different behavioral roles as a method of establishing exploitative and explorative behaviors to increase the chances for long term survival among SMEs.

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