

RESEARCH ARTICLE

Determining the influence of personal entrepreneurial competencies on enterprise risk management in the Bhutanese SMEs

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ABSTRACT

The purpose of this research was to empirically investigate the existence of Enterprise Risk Management and to determine the influence of Personal Entrepreneurial Competencies on the Enterprise Risk Management of the Small-medium Enterprises (SMEs). To achieve the objectives of the study, empirical data is collected from 300 production and manufacturing SME owners and managers from the economic region of Bhutan using closed-ended structured questionnaire. The Structural Equation Modelling was employed as the main technique for data analysis to test the proposed model and hypothesis. The findings revealed the relationship between Personal Entrepreneurial Competencies and Enterprise Risk Management to be statistically significant. Furthermore, the study found that the SME owner/managers demonstrated to be in the “Strong” category on four Personal Entrepreneurial Competencies items and in “Moderate” category for the remaining six items, which are vital to understand in a developing nation. The novel contribution of this research focuses on integrating Enterprise Risk Management and strategic planning processes to gain a better understanding of the enterprise’s key risks and opportunities that are relevant to strategic objectives, as well as defining the leadership team’s responsibilities to establish clear risk oversight and accountability.

Keywords: enterprise risk management (ERM); personal entrepreneurial competency (PEC); small-medium enterprises (SME); Bhutan; structural equation model (SEM)

1. Introduction

Small and medium enterprises (SMEs) are, without doubt, the backbone of every economy and their significances known to all. Compared to bigger firms, SMEs are perceived to be more dynamic and faster at responding and adapting to the market force owing to their simpler organisational structure. SMEs, however, have the ability to innovate and be successful or cease to exist if they are unable to compete, and the owners/managers play a vital role in it. Similarly, in this globalized world, the tiny Himalayan Kingdom of Bhutan has no exception. Hence, the government emphasized the development of the production and manufacturing SMEs and saw an impressive growth of 27 percent in a short period of time. Similar to the other countries^[1,2], SMEs in Bhutan are also defined based on the number of employees or initial invest as shown in **Table 1**.

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Table 1. Classification of SMEs in Bhutan^[3].

Scale of Industry	Employment Size (No. of Employees)	Investment asset (in million Nu.)
Cottage	1 to 4	Less than 1 million
Small	5 to 19	Between 1 to 10 million
Medium	20 to 99	Between 10 to 100 million
Large	100+	More than 100 million

The Bhutan Vision 2020 and the Economic Development Policy 2010 identified SMEs as a priority sector to realize the noble vision of achieving Gross National Happiness (GNH)^[3]. The government has initiated many activities to promote entrepreneurship and foster smaller businesses. The Royal Monetary Authority of Bhutan (RMA) has initiated and launched a scheme called Priority Sector Lending (PSL) guidelines with an aim to improve access to finance and increase opportunities for the youth employment^[4]. Most importantly, SMEs along with civil society organisations are entrusted “to ensure a sustainable LDC [least developed countries] graduation for Bhutan”^[5]. Given the importance of the SMEs for the economy of Bhutan and the priority given by the government, it is also equally important to assess their status and the future prospects.

The enterprise risk management (ERM) can be used by any kind of organisations starting from small businesses to Fortune 500 companies. The ERM can be integrated into the daily operations of a business entity and not as an afterthought^[6]. As a result, ERM is “the holistic, systematic and analytic approach” of risk management which thrives on a different mindset as compared to the traditional risk management^[7]. More importantly, ERM, and COSO ERM in particular, has become the de facto worldwide standard for assessing internal controls and its multidimensional format claims the superiority over any of the other enterprise risk management frameworks^[8].

Although there are systematic methods for determining the riskiness or the sustainability of the SMEs, there are no study concerning risk management of the SMEs in Bhutan. Bhutan should not be lagging while the whole world is moving forward. At the empirical level, several researches were also conducted to study importance of risk management and SMEs, for example, Hiebl et al.^[9], Naude and Chiweshe^[10], and Pratono^[11] and such studies are scanty in Bhutan. Besides the important impact of ERM on SMEs, the role of the SMEs is greatly influenced by the managers who manage them, be it by the owner or manager, and researchers tend to agree to the importance of considering owner/manager characteristics in understanding business performances.

While the studies on owner/manager characteristics and firm performance is abundant^[12], work that focuses on enterprise risk management (ERM) and owner/manager characteristics is rare. Furthermore, such studies are relatively limited in emerging^[13] and smaller nations. Thus, owing to the importance of SMEs to the economy, this study aims to explore the influence of owner/manager characteristics on the ERM practices in the production and manufacturing SMEs in Bhutan to answer the main research question: Does the personal entrepreneurial competencies influence risk management strategies in the SMEs in Bhutan?

2. Literature review

2.1. Theoretical framework

The current study stems from four theories-Administrative Theory, the Theory of Growth of the Firm, Entrepreneurial Competencies, and Concept of Risk as elaborated hereunder.

The **Administrative Theory** by Henri Fayol gives importance towards the function of the management of the organisation, specifically in improving the efficiency of management and to standardize them^[14,15].

The Administrative Theory propounded five central elements of management^[14,15]-planning, organizing, commanding, coordinating and controlling. Fayol's Administrative Theory is a result of his meticulous observation, recording and collection of his life-long career and "his contribution was a major one and still considered relevant today"^[16]. As a result, Fayol believed that management could be taught and while he had the option to do it, he set forth a number of management principles that could be followed by all formal organisations. For instance, Fayol's scalar chain principle emphasizes the importance of the flow of unbroken line of communication from the top management or the chief executive to the bottom of an organisation^[14].

The **Theory of the Growth of the Firm** put forward by Edith T. Penrose in 1959, which gave birth to the Resource-based View (RBV) in 1984^[17-19], defines a firm as a business unit where "the patterns of economic life, including patterns of consumption as well as of production, are largely shaped by the multitude of individual decisions made by the businessman who guide actions of the business units"^[20]. Nonetheless, a firm is a collection of productive physical and human resources with administrative planning units and interrelated activities coordinated by policies framed in the light of their effect on the enterprise as a whole.

Owing to the flexibility of Penrose's theory of Growth of the Firm, Burvill et al.^[21] developed a conceptual framework to "explain the firm growth process" based on empirical research via the integration of Penrose's theory of the growth of the firm and the resource-based view. Their study identified the factors responsible for a firm growth into three themes or core categories-resources, mediating factors and output factors. The Resources are defined as factors which enable the firm to initially function, without which the business would not be able to develop. The Mediating factors are defined as factors that enable the management of resources and outputs, which enable the transfer of resource to outputs. Outputs are defined as factors which are saleable and ultimately bring in revenue for the firm^[21].

The term **entrepreneurial competencies**, according to Bird^[22], is "defined as underlying characteristics such as generic and specific knowledge, motives, traits, self-images, social roles, and skills which result in venture birth, survival, and/or growth". The constituents of entrepreneurial competencies varies across various sectors^[23]. The authors found that the various aspects of entrepreneurial competencies across various sectors include strategic competencies, conceptual competencies, opportunity competencies, personal competencies, learning competencies, ethical, familism, leadership, marketing, management and relationship competencies.

However, for the purpose of this study, 10 personal entrepreneurial competencies as defined by the UNCTAD^[24] and used by various studies such as Behling and Lenzi^[25] are used to identify the personal entrepreneurial competencies (PEC) of the SME owners/managers. The PEC, according to UNCTAD, is based on the notion that everyone has an inner drive to improve: Opportunity-seeking and initiative; Persistence; Commitment; Demand for efficiency and quality; Taking calculated risk; Goal setting; Information seeking; Systematic planning and monitoring; Persuasion and networking; and Independence and self-confidence. These 10 PECs determined if an individual possessed entrepreneurial competencies to be successful in their business endeavours.

The key concept of ERM is the holistic management of all risk and not just management of individual risk^[26]. Hopkin defines risk management as the set of activities within an organisation undertaken to deliver the most favourable outcome and reduce the volatility or variability of that outcome^[27]. Although, risk management originated in the insurance industry, the development of education and qualifications in risk

management led to the emergence of risk management standards^[27] and hence the importance of its application in the business world.

The overall process of risk management, as recommended by Frame^[28], Moeller^[8], and the international agencies like the COSO, the IRM Institute, and the ISO31000 boils down to the following: Internal environment; Objective setting; Risk identification; Risk assessment; Risk response; Control activities; Information and communication; and Monitoring. The processes or phases of risk management are given as hereunder:

Internal Environment. Refers to the supportive internal environment which is a fundamental requirement for a successful ERM^[29]. The internal environment sets the stage for risk appetite (how much risk the entity can take). Thus, the internal environment represents the attitude and awareness of the management and how the management considers the importance of the ERM within the business entity.

Objective Setting. According to Hopkin^[30], objectives must exist before management can identify potential risks that can affect their achievements. Having clear objectives signify the importance of strategic-planning process and serves as a basis for identifying, assessing and responding to risk. A clearly defined objective is imperative for risk management because a clear and concise objective or objectives determines the success of the business entity^[31].

Risk Identification. The third step in ERM is the identification of risks. The risks are categorized under four categories for this study-strategic risks, financial risks, operational risks and hazard risks. As proposed by Moeller^[8], strategic risks can occur due to external factors such as competitor^[32,33], legal and regulatory changes^[34], customer demands, industry and the overall economy. Operational risks are the type of risks that disrupt the normal everyday activities^[27]. Operational risk factors such as human resource^[35-37], IT systems, supply chain^[12] and human resource development are internal to a business entity while the regulation changes^[32,34] and customer satisfaction^[37] are external factors that would hinder the daily activities of the business.

Risk Assessments. Once the probable significant risks impacting or would be impacting the business entity are identified, the next step is to assess them for their likelihood of happening and their magnitude of harming the business^[8]. According to Vaughan^[38], there are two reasons why the potential severity of risks should be measured. The first reason is that “some notion of severity is necessary” to determine whether a particular risk is ultimately classed as critical, important, or unimportant/negligible depends on the severity of impact. The second reason is to devise various forms of mitigation techniques.

Risk Response. An old Bhutanese adage says, “A fire should be extinguished when it is small. Enemies should be subdued when they are young”. Similar analogy can be applied in terms of risk management. A small risk, if not treated on time, may become catastrophic. And more importantly, SMEs need to adopt risk management strategies since they lack the resources to respond to the different types of risks, thus endangering their entire existence^[8,9,27].

Control Activities. Control activities encompass the policies and procedures established by the management to ensure that the ERM, especially risk responses are efficiently and effectively executed. A strict implementation of the control activities would lead to a better performance, according to Karunaratne^[29].

Information and Communication. Information is key at all levels of a business entity in order to identify, assess and respond to risk. An effective information and communication channel within the entity is

a must to reap the benefits of ERM. There should be a clear chain and means of information and communication so that all the stakeholders within the organization are abreast of the recent developments, especially pertaining to risk management.

Monitoring. The risk management process does not end after the risk is countered. It is equally important to monitor the “entirety of enterprise risk management”^[9]. In fact, monitoring, reviewing and a continuous improvement process would ensure the organization’s success^[31] Furthermore, Hopkin^[9] also mentions that systematic processes such as policies and procedures should be developed and implemented to ensure that the risk responses are effectively carried out.

2.2. Relationship between PEC and ERM

A study by Maliranta and Numi^[36], using secondary data, concluded that the competency of the owner is vital for the success of a SME. Thus, entrepreneurial competencies are observable behaviours and can influence firm performance since they are more tied to performance than other entrepreneurial characteristics such as personality traits and intentions^[22]. A study by Sánchez^[39] confirmed that there is a positive relationship between entrepreneurial competence and firm performance. Similarly, several other studies have found that entrepreneurial competencies lead to better firm performances^[23,25,40-42]. However, there is no direct relationships proven between personal entrepreneurial competencies and enterprise risk management.

2.3. Research gap

The review of extant literature revealed that there exists a relationship between PEC and firm performance as well as ERM and firm performance in both big and small industries. Thus, the present study endeavours to fill the research gap by determining a relationship between PEC and ERM. Furthermore, the study seeks to extend the extant literature in the context of SMEs in Bhutan as almost all published studies are based on developed and bigger economies. Being in the world’s business environment, the international best practices must be followed irrespective of the geographical location and size of economy.

2.4. Research hypothesis

As aforementioned, the relationship between PEC and firm performances are widely studied. For example, a study by Sánchez^[39] confirmed a positive relationship between entrepreneurial competencies and firm performance, while several studies^[23,25,40-42] concluded that entrepreneurial competencies led to better firm performances. On the other hand, Jonnsen^[43] found no significant relationship between owner/manager characteristics and financial performance of firms in Australia. However, there are no published research on personal competencies and risk management. Nonetheless, it is common knowledge that managing risk would directly translate to performance. Therefore, the varied findings and empirical evidence regarding the relationship between the risk management processes and firm performance as well as scanty information on PEC and ERM warranted the following hypothesis:

H_a: The personal entrepreneurial competency (PEC) of the owner/manager has significant effect on the ERM in the SMEs.

3. Research methodology

This is a cross-sectional empirical study wherein the researchers collected quantitative primary data, using close-ended questionnaires, from 300 owners/managers of the production and manufacturing SMEs in the economic regions of Bhutan. After identifying some key participants, snowballing sampling method is employed to collect data in person using questionnaires as it was difficult to locate all the functioning SMEs. Although there are over 2000 registered SMEs in the production and manufacturing sector, many of the

SMEs are found to be defunct or non-existent, thus rendering simple random sampling ineffective. A sample size of 300 is determined based on the 10 cases per variable rule of thumb^[44]. Following a deductive approach, the researchers developed a relationship between concepts with the help of theories and prior studies^[45] to hypothesize the relationship between PEC and ERM and test using structural equation modelling (SEM). Both the independent and dependent variables are measured by five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) with 3 as Neutral. However, the final value used for the independent variable (PEC) are computed as per the UNCTAD^[24] guidelines as explained in the following section.

The instrument developed by UNCTAD is more holistic, and thus, used for this study. According to the PECs, the highest corrected score is 25 per PECs item and the closer the score is to 25, the stronger the particular individual is to that particular PECs item. Similar to the study of Kyguoliene and Syipas^[46], a PECs item score of 19 and above indicates “Strong”, while a score of 16-18 would mean “Moderate” and a score of 15 and below indicates “Weak” PEC level. The highest score that can be obtained is 25 in each PECs item wherein there are 10 of them. The variable is labeled Personal Competency.

The dependent variable, ERM, was used by several studies, such as those by Hiebl et al.^[9] and Sadeghi^[47] and also several other studies which used partial components of the ERM process. Thus, combining and adapting the instruments used in various studies, the Enterprise Risk variable is constituted by the eight ERM processes measured using 5-point Likert scale.

4. Results

4.1. Respondents and SME demographic Profile

A total of 300 SME owners/managers were enumerated and subjected to statistical analysis using RStudio version 4.0.2 and IBM SPSS AMOS version 21. Out of the total respondents, the majority (66 percent) were male and the remaining 34 percent were female. While over 60 percent of the respondents were owners or managers, two staff members from two SMEs were enumerated as the owners/CEOs were out of the country during the data collection period. With regard to respondent age group, most (about 70 percent) of the respondents were between the age of 30 to 50 years while there were also few above 60 years as well as below 20 years of age.

Regarding the personal entrepreneurial competencies (PECs), four out of the 10 PECs items fall in the “Strong” category, which means the SME owners/managers were strong in Opportunity Seeking, Persistence, Commitment to Work Contract, and Demand for Quality & Efficiency. The remaining PECs items are in the “Moderate” category. However, there are no great variations in both the categories as evidenced in **Table** .

The sample collected consists of micro (50 percent), small (46 percent) and medium (five percent) enterprises, where the value in the parentheses are the relative percentage of enterprises by size in the sample. The average number of employees that the SMEs started with is about 5.09 with the highest being 30 employees. The average number of current employees went up to 6.45 with SMEs employing as high as 100 employees. Furthermore, out of the total SMEs, most of them have been in business over 10 years while about 19 percent have been in the business recently (less than two years).

Table 2. Personal entrepreneurial competencies (PECs) score.

Code	PECs	Mean	Std. Dev.	Interpretation
1	Opportunity Seeking	19.01	1.81	Strong
2	Persistence	19.16	1.86	Strong

3	Commitment to Work Contract	19.36	1.66	Strong
4	Demand for Quality & Efficiency	19.12	1.85	Strong
5	Risk Taking	18.09	2.20	Moderate
6	Goal Setting	18.66	1.96	Moderate
7	Information Seeking	18.79	1.79	Moderate
8	Systematic Planning & Monitoring	18.37	1.93	Moderate
9	Persuasion and Networking	18.26	2.05	Moderate
10	Independence and Self-Confidence	18.29	1.93	Moderate

4.2. The structural equation model

As detailed by Fornell and Larcker^[48], it is must to demonstrate that the “measurement model has a satisfactory level of validity and reliability” before testing for a significant relationship in the structural model.

4.3. Reliability test, validity test and common method bias

One of the widely used measures to test reliability is the Cronbach’s Alpha wherein the value of alpha above 0.70 indicated a tight connection between the items in the scale showing higher reliability^[49]. All the measurement scales are found to be reliable with Cronbach’s Alpha of 0.80 or higher (Refer **Table**) indicating that the measurement scales in this study are internally consistent.

Table 3. Cronbach's alpha of the scale items.

Sl. No.	Theme	Std alpha
Part C	Risk Management Process	
1	Internal Environment	0.82
2	Objective Setting	0.90
3	Risk Identification	0.78
4	Risk Assessment	0.75
5	Risk Response	0.85
6	Control Activities	0.80
7	Information and Communication	0.87
8	Monitoring	0.82
Part D	Personal Entrepreneurial Competency	0.81

Factor analysis confirmed the construct validity with all the factor loadings over 50 percent. Furthermore, the AVE for Enterprise Risk and Performance are greater than the minimum threshold of 0.5, however, the AVE for Personal Competency is less than 0.5. Nevertheless, according to Malhotra and Dash^[50], “AVE is a more conservative measure than CR” and thus, convergent validity of the construct can be based on the CR alone. Regarding the discriminant validity, all the MSV values are less than AVE (MSV < AVE) and the square root of AVE (diagonal elements) are greater than inter-construct correlations. Hence, discriminant validity is sufficed.

As recommended by Jordan and Troth^[51], the current study used two different types of anchors for scales, “strongly agree to strongly disagree” and “always to never” for the independent variables and “very satisfied to very dissatisfied” for the dependent variables as procedural measure. With regard to the statistical measure, the single factor accounted for only 36 percent (Proportion var =.36 < .50) of the variance explained, indicating that the effect of common method bias is acceptable since it is within the recommended threshold^[52].

4.4. The structural model

The structural model makes use of regression analysis to relate the factors to one another but instead of observed variables, latent variables are used^[53]. The general structural equation model can be written as: $\eta = B\gamma + \zeta$; where, η = endogenous (dependent) latent variable, γ = exogenous (independent) latent variable, B = coefficient of the two latent variables, and ζ = random error (assumed to be normal distribution with mean of 0 and variance of 1).

As hypothesized in earlier, the existing theories and empirical researches indicate that the firms' performance depended on the risk management strategies that they employ which in turn is determined by the personal attributes of the owners or managers that managed the business. In other words, it is hypothesized that financial performance (Performance) of a firm is a function of the enterprise risk management (Enterprise Risk), and the enterprise risk management, in turn, are dependent on the personal entrepreneurial competencies (Personal Competency) of the owners or manager. However, for this particular paper, only the structural relationship between Personal Competency and Enterprise Risk are considered. Thus, the structural model is constructed based on the theoretical model by following the parameter adjustment suggestions of AMOS. The relevant and logical error terms and control variables are allowed to covary based on modification indices suggested by AMOS.

4.4.1. Step 1: Measurement model analysis

For this research, the latent variables are the Enterprise Risk and Personal Competency where the dependent variable is Enterprise Risk. The latent variable Enterprise Risk is represented by the eight risk management process indicators. Similarly, the Personal Competency latent variable is measured by its 10 indicators.

The CFA results indicated the existence of convergent validity between the manifest and latent constructs of personal competency and enterprise risk management with appropriate model fit indices with CMIN/DF of 1.67, which is less than the recommended threshold (<3); Goodness of Fit Index (GFI) of 0.92 above the recommended 0.90; Incremental Fit Index (IFI), Comparative Fit Index (CFI), and Tucker Lewis Index (TLI) of 0.96 above the threshold of 0.90; and Root Mean Square Error of Approximation (RMSEA) and Standardized Root Mean Square Residual (SRMR) of 0.05 below the recommended threshold of 0.08. The factor loadings also indicated that the correlations of the variables with the factors are moderately high (0.3 to 0.6) to high (0.6 and above)^[54]. Since there are no factors with loadings below 0.3, the factors are not adjusted. Thus, the CFA (measurement model) fits to proceed to the structural mode.

4.4.2. Step 2: The structural model analysis

Since there are only two variables of interest, Personal Competency and Enterprise Risk, only one structural model is tested. The model is defined according to the structural relationship between Personal Competency and Enterprise Risk as theorized above. Then the model fit is tested using the SPSS AMOS. Overall, the model parameters indicated that the model fits the data with CMIN/DF of 1.67, which is less than the recommended threshold (<3); IFI, CFI&TLI>0.90; and RMSEA&SRMR<0.08. Thus, the model parameters confirmed that the model fits the data and the model can be used to test the research hypotheses.

4.5. Hypothesis testing

The model fit indices indicated that that the model fit the data with the relationship between Personal Competency and Enterprise Risk being statistically significant ($\beta=0.351$, $p = 0.001 < 0.05$). Thus, the findings support the research hypothesis-the personal entrepreneurial competency of the owner/manager has significant effect on the enterprise risk management in the SMEs (H_a). A further analysis (linear regression)

of the relationship between PEC and ERM showed that the 10 domains of the PEC correlated with the ERM at a significant level with p-value < 0.05. However, only two domains of the Personal Competency (Info Seeking f with p-value = 0.037 < 0.05 and Plan Monitor f with p-value = 0.029 < 0.05) were unique predictors of ERM as shown in **Table 4**.

Table 4. The correlation between 10 PEC domains and ERM.

Model	Coefficients ^a			t	Sig.
	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta		
(Constant)	1.118	0.506		2.207	0.028
Opp_Seek_f	0.014	0.021	0.048	0.672	0.502
Persistence_f	0.023	0.021	0.079	1.110	0.268
Work_Commit_f	0.013	0.020	0.041	0.658	0.511
Qual_Effi_f	0.009	0.019	0.032	0.476	0.635
Risk_Taking_f	-0.024	0.016	-0.099	-1.551	0.122
Goal_Setting_f	0.015	0.018	0.053	0.831	0.407
Info_Seeking_f	0.038	0.018	0.125	2.095	0.037*
Plan_Monitor_f	0.042	0.019	0.152	2.197	0.029*
Per_Networking_f	0.023	0.017	0.087	1.349	0.178
Self_Confidence_f	-0.013	0.017	-0.048	-0.783	0.434

a. Dependent Variable: ER

*p < 0.05

5. Discussion and conclusion

This study investigated the personal entrepreneurial competency of the SME owners/managers in Bhutan and its impact on the enterprise risk management. A SEM approach is used to establish the relationship between PEC and ERM. The study found that the SME owners/managers are “strong” in the first four domains and “moderate” in the remaining six domains indicating that their personal entrepreneurial competencies (PEC) are commendable as entrepreneurs. The findings of the survey corroborated with the Administrative Theory and the Theory of the Growth of Firms since the findings indicated the owners/managers to be ‘Opportunity Seeking’, ‘Persistent’, ‘Committed to Work Contract’, and ‘Demanding for Quality and Efficiency’. These are the strong indications that that the owners/managers are proactive entrepreneurs.

Most importantly, the regression between PEC and ERM established a positive linear relationship, which is statistically significant with the p-value < 0.05 at 95% confidence level. The structural model also satisfied all the prerequisites and confirmed that the model fit the data. Thus, the result confirmed the research hypothesis: The personal entrepreneurial competency of the owner/manager has significant effect on the enterprise risk management in the SMEs (**H_a**). The nearest study to support this finding is the study of Andika and Puspita^[40] where they found that the entrepreneurial competence significantly influenced organisational capability and competitive scope. However, neither the entrepreneurial competence was composed of the ten domains of the PEC nor the ERM measurements were used. Other than the theoretical link between the PEC and ERM, there are no empirical studies connecting the relationship. For example, the study by Tehseen et al.^[23] directly looked at the relationship between some aspects of PEC and SMEs’ growth and was unable to establish a direct effect of strategic and ethical competencies on SME’s growth. Thus, similar studies are required to further validate the relationship between PEC and ERM as found in this study.

5.1. Theoretical contribution and practical implications

Considering the significance of SMEs in the social and economic development of a country, substantial research studies are available on SMEs but are limited to developed economies and bigger nations. One of the core outcomes of this study is a conceptual research model that allows a better understanding and representation of the factors that affect the firm performance in the SMEs in Bhutan, mainly with regard to owner/manager characteristics and ERM. There are scanty studies being carried on the impact of owner/manager characteristics on risk management in general and ERM in particular and no such studies are being published about Bhutan. The relationship proved to be statistically significant between the PEC and ERM indicating that the risk management or implementation of risk management is determined by the personnel characteristics.

The extant literature reviews proved that the implementation of enterprise risk management (ERM) positively impacts the firm performance in other parts of the world, be it SMEs or bigger companies. Despite the impact on performance as well as enabling all the various functions of businesses to work together, the Bhutanese SMEs are found to be not adopting such international best practices. Although not necessary, basic risk management practices such as objective setting, risk identification, risk response and financial management are vital for success. However, instead of implementing such risk management practices, even the basic bookkeeping or financial management were not observed in the Bhutanese SMEs. These are evident from the lack of knowledge about accounting terminologies such as revenue, income, investment and assets used in the questionnaire as well as observed during the course of the interview, especially with the cottage and small SMEs. In order to assess performance and set future goals, keeping proper records is vital.

5.2. Limitations and scope for future research

First of all, it is worth noting that the study samples included only the existing and operational SMEs while it is deemed logical to include the failed SMEs as well for a comprehensive finding. Secondly, the study used snowball sampling, which is a convenient sampling design, and has its own limitations. Thirdly, the study included only the owner/managers of the SMEs and hence, respondent bias could have impacted the findings of the study. Therefore, to make the study holistically robust and inferable, future study may overcome the aforementioned limitations of the study. Furthermore, the findings of the study, that is the established statistically relationship between personal entrepreneurial competencies and enterprise risk management may be used as a foundation for future studies.

5.3. Conclusion

This study provided an insight into the relationship between personal entrepreneurial competencies and ERM and found statistically significant relationship using a structural equation model. Although the direction of relationship or the nature of impact is inconclusive, this study concluded the fact that the personal entrepreneurial competencies and ERM are related. The findings also implied that the funding agencies and the government need to be cognizant of the importance of individual characteristics and traits while funding and licensing new ventures and entrepreneurial activities. As the findings vividly indicated the relationship, the government and the funding agencies may employ the use of personal competency tests to ensure the sustainability and existence of the SMEs as SMEs are found to have the highest failure rates. However, the findings of the study are limited to the number of samples, sampling design and sample concentration and overcoming such limitations may provide better and robust results for similar future studies.

Author contributions

Conceptualization, TT, VR and KY; methodology, TT; software, TT; validation, VR, KY and TT; formal analysis, TT; investigation, TT; resources, VR and KY; data curation, TT; writing—original draft preparation, TT; writing—review and editing, TT; visualization, TT; supervision, VR and KY; project administration, TT; funding acquisition, NA. All authors have read and agreed to the published version of the manuscript.

Conflict of interest

The authors declare no conflict of interest.

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