Centre for ASEAN Studies

Centre for International Management
and Development Antwerp

ISSN-2031-065X

Success factors of Cambodian SMEs[1]

Sok Seang[2]

CAS Discussion paper No 74

November 2009

[1] The present paper is based on our doctoral disseratation, Seang (2009). We are much indebted to prof. dr. L. Cuyvers for extensive editing and revising.

[2] D.B.A., National University of Management.

1. Introduction

Cambodia has a population of approximately 13.5 million people. Over 80 percent of the population lives in rural areas and agriculture accounts for over 70 percent of employment (National Institute of Statistics, 2004). In Cambodia, economic activity is dominated by small scale to medium enterprises in all sectors.

Despite rapid economic growth over the last decade, GDP per capita remains low at US$308. In terms of the three major sectors-agriculture, industry, and services, the industrial sectors has been the most dynamic. By 2003, the industrial sector had grown in importance to account for 27.7 percent of GDP. This was primarily driven by the growth in the garment industry. The textiles, footwear and garment industry accounts for 12.5% of GDP, and from 1994 to 2002 created over US$579 million investment in fixed assets. The agriculture and services sectors are the largest by GDP and employment. In 2003, agriculture accounted for 36 percent of GDP while the services sector share was over 36.2 percent (ADB, 2006).

The Cambodian economy is generally composed of three main sectors: agriculture, industry and service. Industry and service sectors are strongly supported by exporting garment products to US and EU markets and the growing number of tourists visiting Cambodia, especially Angkor Wat. While the share of agriculture in the economy has been declining, industry and service sectors have been growing in importance. Based on the Key Economic Indicators produced by ADB in 2006, the share of the industrial sector in the Cambodia economy had increased from 17.9% in 1998 to 27.7% in 2004 while the service sector increased slightly from 35.0% to 36.2% during the same period. Small and medium enterprises (including micro) account for 99% of the firms and are responsible for 45% of employment (ADB, 2006).

2. SMEs in Cambodia

Regarding SMEs we follow the definition set out by the Ministry of Industry, Mines and Energy (MIME), Cambodia, as follows. Any firm that employs between 11-50 employees and have fixed assets from $50,000 up to $250,000 would be categorized as “small firm”. Medium firms would have employees range from 51 to 100 and fixed assets from $250,000 to $500,000.

Due to limitations of time and funds, the target population in this research could not cover all SMEs in Cambodia. Moreover, this research was not designed to study all SMEs in Cambodia, but it was only to study the factors influencing SME sales performance with evidence from Cambodia.

Cambodia has four large cities (Phnom Penh, Sihanoukville, Kep City, and Pailin City) and 20 provinces. Phnom Penh is the capital city and the biggest city in Cambodia in term of numbers of SMEs, labour force, industrial outputs, trading and service. Typically, SMEs in Phnom Penh may be viewed as representative of SMEs in the country. Therefore, in this research, SMEs in Phnom Penh were defined as the target population from where the sample was drawn for our research.

In Cambodia, SMEs include many forms of businesses such as state enterprises, private enterprises, limited liability companies (or limited companies), joint stock companies, cooperatives and business

households or family businesses. However, this study examines the impact of personal, business factors and supportive environment on the sales performance of private SMEs.

Four primary criteria had to be met in order for a business to be included in the sample. The business had to be a registered business operating in Phnom Penh, and other provinces. The business had to be classified as a medium sized business (defined by this study) or smaller. This would be a business with no more than 100 employees. In addition, each of the businesses had to be privately owned and located within the selected geographic region.

3. Hypothesis statements

The hypotheses we will test are derived from the assumed relationships between SME's success as measured by sales performance and personal factors, business factors, and the supportive environment.

Personal factors

Based on the findings of Spilling & Berg (2000), Orser & Foster (1992), Heck, Rowe & Owen (1995), Roberts (1994), and Gray & Gray (1989) as reviewed in the literature, SME's success seems likely to be related to gender, age of owner, educational level, total hours worked, dependency on business for income, similarity to previous work, and personal funding, in which Thibault (2001) considered them as personal factors. Thus, the hypotheses in this study are to test the relationship between personal factors and success of SMEs in Cambodia as stated as follows:

3.1 Gender

H1: *A male-owned business generates greater sales revenue than a female-owned business.*

Many of the studies reviewed concluded that male-owned firms generally outperform female-owned firms (Spilling & Berg, 2000, Rowe, Heck & Owen, 1995, Orser & Foster, 1992, Coleman, 2000). Reasons cited in the research for such gender differences include the fact that fewer entrepreneurs are women and, to the extent that they start up their own businesses, they tend to be smaller in comparison to those of their male counterparts (Spilling & Berg, 2000). Also, their contribution to the economic activity of the region is much smaller than their share of business. While their share of the market continues to increase, it still seems reasonable to hypothesize, based on the studies of others, that male-owned businesses will generate greater sales revenue than female owned businesses.

3.2 Age of owner

H2: *The highe the age of the owner, the greater the sales revenue generated by the business.*

From the literature, it is apparent that older business owners generally have more experience whether it is in their own business or similar ones (Heck, Rowe, & Owen, 1995, Orser & Foster, 1992). In many instances, businesses are starting up in the entrepreneur's later years when the entrepreneur has spent a good portion of his/her working years increasing his/her skills under the direction of others. With more years of experience, it seems reasonable to hypothesize that older business owners will be more successful and generate greater sales revenues.

3.3 Education Level

H3: *The more educated the owner, the greater the sales revenue generated by the business.*

Some conclusions from the literature with respect to education of the owner indicate that business owners with higher levels of education set higher growth levels for both themselves and their businesses (Heck, Rowe, & Owen, 1995, Knowles & White, 1995, Wasilczuk, 2000). The education would encourage them to pursue their goals and strive for greater business success. Also, they would be more likely to participate in personal development sessions that could improve their ability to operate their businesses and manage others. Thus, it is reasonable to hypothesize that more highly educated owners will generate greater levels of sales revenue for their businesses than will their less educated counterparts.

3.4 Total hours worked

H4: *The greater the number of hours worked by the owner in the business, the greater the sales revenue generated by the business.*

The literature contends that there is a relationship between the total number of hours worked by the owner in a business and the subsequent returns generated (Orser & Foster, 1992, Soldressen et al., 1998). Therefore, it seems logical to hypothesize that a business owner who works more hours in his/her business will generate greater sales revenues.

3.5 Business dependency

H5: *The more dependent the owner on income from business operations, the greater the sales revenue generated by the business.*

Almost everyone needs some type of employment income in order to maintain his/her lifestyle and meet his/her financial obligations. The literature reviewed suggests that a business owner who is more dependent on his/her business as a sole source of employment income will work hard to ensure its growth and generate greater returns (Roberts, 1994). Obviously, if it is his/her sole source of employment income then more time will be devoted to its operation and potential growth. This infers the hypothesis that business owners who are more dependent on the business as a source of employment income will generate greater sales for the business.

3.6 Previous work experience

H6: *The greater the similarity to previous work experience of the owner, the greater thee sales revenue generated by the business.*

The literature suggests that one of the greatest causes of failure is lack of experience (Gray & Gray, 1989). Past experiences generally prepare the entrepreneur for the task of operating a business. Even if the business is not in the same industry, many of the skills and abilities gained through work experience can be transferred to the new business. Therefore, it seems reasonable to hypothesize that an entrepreneur with a greater degree of similarity in work experience in the business venture will be able to generate greater sales revenue for his/her business than an entrepreneur with no previous experience in the field.

3.7 Personal funding

H7: *The greater the amount of financial investment by the owner in the business, the greater the sales revenue generated by the business.*

When entrepreneurs invest their personal savings in their businesses, it generally increases their vested interest in success. This is not to say that they would not want the businesses to be successful otherwise, but the thought of losing their life savings may increase their level of motivation. This is often the reason that financial service providers such as banks and trust companies look for entrepreneurs to invest some portion of their own savings in the business prior to authorizing any credit. It is reasonable to hypothesize, then, that a business owner who invests more personal savings in his/her business will generate greater sales revenues.

Business factors

Based on the findings of Bradley (2000), Kotey (1999), Soldressen et al.(1998), Mazzarol (2000), Heck, Rowe & Owen (1995), Orser& Foster (1992), Watson & Everett (1999), Orser & James (1992) success of SMEs is assumed to relate to bank financing, other (non-bank) financing, use of technology, use of a business plan, age of business, business structure, operating location, number of employees, in which Thibault (2001) considered them as business factors. Therefore, the hypotheses in this study are to test the relationship between business factors and success of SMEs in Cambodia as stated as follows.

3.8 Bank financing

H8: *The greater the amount of bank financing obtained by the business, the greater the sales revenue generated by that business.*

The literature suggests that business owners who do not obtain adequate levels of financing to preserve their cash flow would sacrifice their growth potential (Bradley, 2000, Kotey, 1999). Similarly, owners who were more willing to use debt and equity financing are more likely to have greater business growth and productivity (Kotey, 1999). This leads to the hypothesis that the greater the level of financing obtained by a business, the greater the sales revenue generated.

3.9 Other financing

H9: *The greater the amount of other (non-bank) financing obtained by the business, the greater the sales revenue generated by the business.*

Other (non-bank) financing for the purposes of this study includes debt financing provided by both venture capitalists and angels. These types of finance providers have a vested interest in the success of a business because they often have a share in the profits and look for substantial returns on their investment. They do a substantial amount of research on a business or business idea prior to releasing their capital. Therefore, it seems logical to hypothesize that those businesses that managed to obtain a greater amount of other (non-bank) financing would generate greater sales revenues.

3.10 Technology

H10: *Businesses using more technological products will generate greater sales revenue.*

The literature suggests that technology adoption can increase efficiency in areas such as production output, reduce lead time, and increase a businesses' overall profitability (Garsornbke & Garsombke, 1989). It enables a business to reduce the need for human capital and increase the automation of business processes while reducing expenses. Therefore, it is hypothesized that the use of more technological products will enable the business to generate greater sales revenues.

3.11 Business planning

H11: *Businesses that use a written business plan will generate greater sales revenue.*

The literature suggests that businesses that use a written business plan experience higher levels of sales, earnings, and growth than firm that do not have one (Soldressen, et al., 1998, Mazzarol, 2000). Many studies have examined the relationship between business planning and business performance and have shared similar findings as discussed in the literature survey. Therefore, it is hypothesized that businesses that use a business plan will generate greater sales revenues.

3.12 Age of business

H12: *The greater the age of the business, the greater the sales revenue generated by the business.*

The literature suggests that an inverse relationship exists between the years in business and the propensity to fail. Firms that were in business longer tended to earn more on average than others. They became more efficient and were able to reduce their operating expenses (Heck, Rowe & Owen, 1995, Orser & Foster, 1992, Watson & Everett, 1999). Therefore, it seems logical to hypothesize that firms that have been in operation longer will generate greater sales revenues.

3.13 Business structure

H13: *Businesses that are incorporated will generate greater sales revenues than their non- incorporated counterparts.*

Orser & Foster (1992) found that businesses that are incorporated tend to have greater sales levels, growth, and longevity. Consequently, this study has hypothesized that incorporated businesses will generate greater sales revenues than businesses with any other type of structure.

3.14 Operating location

H14: *A business that is office-based will generate greater sales revenue than a home-based business.*

The literature suggests that while home-based businesses can be extremely profitable, they are less profitable than office-based businesses (Heck, Rowe, & Owen, 1995). Therefore, it is hypothesized that office-based businesses will generate greater sales revenues than home-based businesses.

3.15 Number of full-time employees

H15: *The larger the number of full time employees in a business, the greater the sales revenue generated by the business.*

Orser & James (1992) found that the longer a business has been in operation, the larger the workforce associated with it and the greater the annual income generated. The ability of an employee to perform his/her role in a business is critical to the efficiency of a business. As a business grows, more employees

are needed to handle the increased workload and with more employees generally comes greater production. Therefore, it is hypothesized that as the number of employees in the business increases, the greater is the sales revenue generated.

Supportive environment

Based on the exploratory research conducted by Wijewardena and Zoysa (2002), it was found that supportive environment was the fourth most important contributor to the success of manufacturing enterprises. This factor is made up of three major sources of support that are crucial for the success of Sri Lankan manufacturing enterprises. They are the open economic policy of the government, political stability and peaceful environment in the country, and government assistance/tax incentives. Thus, the hypothesis in this study is to test the relationship between supportive environment factors and the success of SMEs in Cambodia as stated as follows:

3.16 Open economic policy of the government

H16: *The more open economic policy of the government, the greater sales revenue generated.*

The literature suggests that if the economic conditions are favorable, then, given the basic human motivation to maximize one's gains, entrepreneurship will emerge and economic growth and development will result. If the economic conditions are not favorable, entrepreneurship will not emerge and the society's economy will stagnate. From this point of view, entrepreneurship is primarily a dependent variable and social and psychological characteristics receive relatively little attention.

3.17 Political stability and peaceful environment in the country

H17: *The more political stability and peaceful environment, the greater the sales revenue generated.*

Athukorala and Rajapathirana (2000) found that the political stability and peaceful environment in the country is a strong supporter for the success of their enterprises. Political stability is also a requirement for a country's sustained entrepreneurial growth.

3.18 Government assistance

H18: *The more government assistance provided, the greater the sales revenue generated.*

The literature suggests that the different forms of government assistance undoubtedly contribute to the development of manufacturing enterprises in the country (Athukorala and Rajapathirana, 2000). It possesses a developed infrastructure and superstructure. In developing countries, governments are expected to create an entrepreneurial environment and develop the necessary infrastructure and superstructure.

4. Variable measurements

Before testing the hypotheses, variables had to be defined and measured clearly. Pedharzur and Schmelkin (1991, p.177) defined a variable as any attribute or property in which organisms (objects, events, people) vary.

A number of the variables were transformed for the purpose of the analysis. Transformations can often improve the analysis and reduce the influence of outliers (Tabachnick & Fidell, 1996). Dummy variable coding was used to convert some of the grouped data into dichotomous variables for analysis. This allows the researcher to mess the effect of each of the newly-created dichotomous components.

4.1 Dependent Variables: Gross Annual Sales

In this study, sales performance of SMEs is measured by gross sales for the last twelve months using interval scale.

The variable *gross sales,* estimating gross annual sales, is measured by nine median values of the categories. The measure for *gross annual sales constructs* is adapted from Thibault's (2001). In his study, the researcher developed nine different median values ranging from $31,000 to $250,000 that were substituted for the range given in the survey due to sales definitions for SMEs in Cambodia set forth by the Ministry of Economics and Finance and through discussing with his supervisor.

4.2 Independent Variables

Gender: The variable *gender* of the entrepreneur was measured with two indicators: (1) male, (2) female adapted from Thibault's (2001). In this study, the entrepreneurs were asked to circle the appropriate answer. The gender represents a factor that would have the influence on sales performance of SMEs, and also would be a success factor of SMEs.

Age of owner: The variable *age of the business owner*, was measured by four new items for the purpose of analysis adapted from Thibault's (2001). This variable was created using the median value of the categorical data. The median value was inserted for each case. It ranged from 18 to 65 years. The three remaining variables were created to examine the relationship with the ranges using dummy variables. The first range reflects those business owners under the age of 34 which could be seen as the younger generation. The second represents those business owners of middle age ranging in age from 35-54 which could be viewed as the young professionals. The final range consists of those aged 55 and older; they represent the older and more mature business owners.

Education level: The variable *education level* of the business owners was measured by two new items to examine the relationships adapted from Thibault's (2001). The first variable represents those business owners without a college diploma or university degree. They would probably have had some type of formal education whether it is a high school diploma or training certificate. The second variable represents those who have attained some type of post-secondary education whether it is a college diploma or university degree. They may also have continued on with their studies and attained a post-graduate degree at the master or doctoral level.

Hours worked: The variable *hours worked,* number of hours worked for the business in a normal business week, was measured by three new variables for various forms of analysis adapted from Thibault's (2001). The three variables are dummy variables for hours which subdivide the number of hours worked by the business owner for his/her business. The first group represents those business

owners who worked 29 hours or less in a normal week on their business. This group would be seen as working less than an average number of hours. The second variable represents those business owners who worked between 30 and 59 hours in their business. This would be characterized as the normal or average work schedule, whereas the final group would be considered to be working above average number of hours for their business. This group would be working in excess of 60 hours per week in their business.

Dependency on business for income: The variable *dependency on business for income* of the entrepreneur was measured by two dummy variables to examine the effect of sales performance adapted from Thibault's (2001). The first dummy variable represents additional sources of employment income other than his/her business, and the second dummy represents additional sources of employment income from his/her business.

Similarity to previous work: The variable *similarity to previous work* was measured by five variables for the purpose of analysis. This variable was created using the median value of the categorical data adapted from Thibault's (2001). The median values range from less than 1 year, 1-4 years, 5-9 years, 10-14 years, and more than 15 years.

Personal savings: The variable *personal savings level* was measured by the median values of the categories so that a raw value for personal savings levels could be analyzed adapted from Thibault's (2001). In this study, there were six median values ranging from 0 to $500,000.

Bank financing: The variable *bank financing* was measured by the median values of the categories so that a raw value for bank financing levels could be analyzed adapted from Thibault (2001). In this study, there were nine median values ranging from 0 to $325,000.

Other financing: The variable *other financing,* private lender support for business (venture capitalists, angels), was measured by two new variables adapted from Thibault (2001). The two variables assessed whether there was any kind of private lender contribution to the business.

Use of technology: The variable *use of technology,* the use of information and communication technology for the business was measured by an interval scale using a composite variable with value 0 to 13 for the use of 13 appliances adapted from Thibault (2001). The 13 appliances are: business telephone lines, computer, photocopier, fax machine, notebook computer, cellular phone, business web-site, E-mail, voicemail, pager, Internet access, and others.

Use of business plan: The variable *use of business plan* was measured by two dummy variables to examine the effect of sales performance adapted from Thibault (2001). The first dummy variable represents those business owners with formal business plans before opening their businesses, and the second dummy variable represents those business owners without formal business plans before opening their businesses.

Age of business: The variable *age of business*, was measured by six variables for the purpose of analysis adapted from Thibault (2001). This variable was created using the median value of the

categorical data. In this study, the researcher uses only five median values of the categorical data. The median values were ranged from less than 5 years, 5-9 years, 10-14 years, 15-20 years, and over 20 years. These values were developed for this study because Cambodian SMEs started in 1989.

Business structure: The variable *structure,* forma1 structure of the business, was measured by three dummy variables, separating the three types of structures for examination adapted from Thibault (2001). The first variable represents those businesses that are sole proprietorships or owned solely by one owner. The second represents businesses that are operating under partnership. A partnership has a least two business owners, not necessarily equally split among the partners. The third variable represents those businesses that were incorporated under the principles of incorporation in Cambodia.

Operating location: The variable *operating location* was measured by two dummy variables to examine whether the business is home based or not adapted from Thibault (2001). The first variable represents a home-based business whereas the second represents a non home-based business or office-based business.

Number of employees: The variable *number of employees* was measured by using interval scale for the purpose of analysis adapted from Stanger (1998). In this study, this variable was created using the median value of the categorical data. The median values were ranged from 10-19 employees, 20-29 employees, 30-39 employees, 40-49 employees, 50-69 employees, 70-79 employees, 80-89 employees, and 90-99 employees. These values were developed for this study due to the definition of SMEs in Cambodia.

Supportive environment: The variable *supportive environment* (Cronbach's alpha = .72) was measured with three items using a five-point Likert scale anchored with *Not important* = 1 and *Extremely important* = 5. This variable was used to measure its influence on firm success through the following indicators: open economic policy of the government, political stability and peaceful environment in the country, and government assistance.

Table 1: Description of Variables

Description of Variables	Variable Labels	Variable Measurement Scales
Dependent Variables		
1. Gross sales for the last 12 months	Rawsale	Interval
Explanatory Variables		
1. Gender	Gender	Dummy
2. Age of Owner	Ageof	Interval
3. Education Level	School	Interval
4. Total Hours Worked	Hours	Interval
5. Previous Work Experience	Extwork	Dummy
6. Business Dependency	Addinc	Dummy
7. Personal Funding	Perloan	Interval
8. Bank Financing	Bnkfin	Interval
9. Other (non-bank) Financing	Lendloan	Interval
10. Use of Technology	Techprod	Interval (composite variable with value 0 to 13 for use of 13 appliances)
11. Business Plan	Busplan	Dummy
12. Age of Business	Year	Interval
13. Business Structure	Oppstat	Dummy
14. Operating Location	Hbbbus	Dummy
15. Number of Full Time Employees	Emp	Interval
16. Open economic policy of the Government	Eco	Scale
17. Political stability and peaceful Environment	Politic	Scale
18. Government assistance	Assist	Scale

In this study we constructed a survey in order the collect the data. The survey was standardized with the same survey being distributed to the entire sample. It also used structured close-ended questions to limit the response choice for the respondent. The questions in the survey related to the dependent variable and the various explanatory variables, are as follows:

Personal Factors	Survey Questions
1. Gender	Q24
2. Age of Owner	Q25
3. Education Level	Q26
4. Total Hours Worked	Q11
5. Previous Work Experience	Q10
6. Business Dependency	Q9
7. Personal Funding	Q22

Business-Related Factors	Survey Questions
8. Bank Financing	Q21
9. Other Financing	Q22
10. Use of Technological Products	Q20
11. Use of a Business Plan	Q12
12. Age of Business	Q4
13. Business Structure	Q3
14. Operating Location	Q5
15. Number of Employees	Q7
Supportive Environment	**Survey Question**
16. Open economic policy of the government including market opportunities, a deregulated business environment, sound investment policy.	
17. Political stability and peaceful environment	Q27
18. Government assistance such as such as tax incentives, infrastructure facilities, and loan facilities through state banks particularly for SMEs, small business owner training.	

The research questionnaire was piloted on two research professionals and ten business owners. The pilot study was completed throughout January 2008. The survey itself was administered via interview from the period of February 2008 through May 2008. The response rates varied throughout the sample. 403 surveys were distributed and all were returned. Among 423 surveys returned, 362 are usable, which brings the response rate of the study to 85% compared to the sample size.

5. Data Analysis

5.1 Steps in the data analysis

A regression analysis was chosen because it allowed the researcher to assess the relationship between the dependent variable, gross annual sales, and several independent variables represented in the hypotheses. A standard multiple regression was used and all independent variables entered simultaneously to assess their relationship with the dependent variable.

As a secondary form of analysis, a discriminant function analysis was done using the variables selected from the final regression equation to validate their predictive ability. The independent variables from the

final regression equation were used as predictor variables to classify businesses into groups with varying degrees of sales levels.

The analysis for this study involved five steps. Initially, the hypotheses were separated into business-related factors, personal factors, and supportive environment factors. They were then examined as separated regression equations. Therefore, the first, second, and third analysis steps involved running each of the factor sets individually. Each of the variables was tested and those with significant values demonstrating some support for the hypotheses were further examined, while those with no support were removed from further analysis. The fourth step in the analysis involved generating an integrated model combining each of the significant variables from each of the respective factor runs. The total number of variables was reduced at this point so the ratio of cases to independent variables were no longer a concern. The integrated model was finalized with all significant variables being included.

Step 1: Personal factor run

SUC = $b0$ + $b1$(Gender) + $b2$(Age of Owner) + $b3$(Education Level)
+ $b4$(Hours Worked) + $b5$(Extent to Similar Work)
+ $b6$(Business Dependency) + $b7$(Persona1 Financing) + ε

The personal factor run included a greater number of independent variables at the onset that were reduced based on the significance value of each of the variables. After the initial run of the regression, the regression output was examined to determine if its parameters were likely different from zero. Hence, variables with significance levels greater than 0.05 (rounded to two decimal places) were immediately removed with the remaining variables being more closely examined. Therefore, this initial regression run was able to examine the seven hypotheses presented in the literature and reduce them to the contributing factors that will be more closely examined in the fourth stage including further regression and statistical analysis.

Step 2: Business factor run

SUC = $b0$ + $b1$(Bank Financing) + $b2$(Private Financing)
+ $b3$(Technological Product Use) + $b4$(Business Plan Use)
+ $b5$(Operating Location) + $b6$(Age of Business)
+ $b7$(Business Structure) + $b8$(Number of Employees) + ε

Similar to the personal factor run, this allowed for an adequate level of sampled business to independent variable ratio. Any of the variables that had significance levels exceeding 0.05 (rounded to two decimal places) were removed from future analysis. Similar to the personal factors, a number of independent variables may emerge as providing the most explained variance.

Step 3: Supportive environment run

SUC = $b0$ + $b1$(Open economic policy of the government) + $b2$(Political stability & peaceful environment) + $b3$(Government assistance) + ε

After the run of the regression, the regression output was examined to determine if its parameters were likely different from zero. Hence, variables with significance levels greater than 0.05 (rounded to two

decimal places) were immediately removed with the remaining variables being more closely examined. Therefore, this set of supportive environment will be more closely examined in further statistical analysis in the fourth stage.

Step 4: Combined factors run

The regression output of each of the factor set runs, business, personal factors and supportive environment, were examined. A number of variables were removed from the analysis based solely on their insignificant contribution to each regression equation. The regression was run and the output was examined. Those producing the largest beta coefficients or greatest importance in the explanation of the dependent variable were ranged in order of importance. Finally, the variables not contributing to the regression equation with significance levels of greater than 0.05 were removed and the regression equation was completed.

Step 5: Discriminant analysis

The objective of discriminant analysis is to predict group membership based on a combination of predictor (independent) variables. It can also provide insight into the relationship between group membership and the variables used to predict group membership. As one of the common applications cited for discriminant analysis is credit risk assessment, whether it would be the firm or the individual him/herself (Kanetkar, 2001), it seems reasonable that current or future business owners, based solely upon their personal, business factors and supportive environment, could be assessed and assigned to group membership.

5.2 Descriptive Findings of the Research Study

5.2.1 Business Sector

Table 2 reports the distribution of the sample of responding firms in terms of type of industry. The sectors of the businesses sampled were also quite diverse but, not surprisingly, 38.4% of businesses in the study sample were operating service-related businesses. The second greatest industry type represented is retail business (29.8%), followed by restaurant/hospitality (11.3%), manufacturing (10.8%), wholesale (5%) and construction (3%) of respondents.

Table 2 : Business Sectors in the Sample

Business Sector

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Retail	108	29.8	29.8	29.8
	Wholesale	18	5.0	5.0	34.8
	Construction	11	3.0	3.0	37.8
	Manufacturing	39	10.8	10.8	48.6
	Service	139	38.4	38.4	87.0
	Restaurant/Hospitality	41	11.3	11.3	98.3
	Other	6	1.7	1.7	100.0
	Total	362	100.0	100.0	

Gross Sales

Table 3 provides the number and percentage of gross annual sales of the last 12 months of each SME in the sample. Sales levels fluctuated amongst the businesses sampled. However, 41.2% of businesses sampled indicated a gross sales level of less than $31 thousand. A total of 17.1% of businesses sampled indicated a gross sales level of between $31,000 and $50,000. A total of 6.6% of the sample indicated gross sales in between $50,000 and $62,000 annually. A total of 5.5% of businesses sampled indicated a gross sales level of between $62,000 and $80,000. 5.5% is between $80,000 and $100,000. The last is 2.5% between $100,000 and $125,000.

Table 3 : Gross annual sales in the sample

Gross Annual Sales

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than $31,000	149	41.2	41.2	41.2
	$31,000 - $50,000	98	27.1	27.1	68.2
	$50,000 - $62,000	62	17.1	17.1	85.4
	$62,000 - $80,000	24	6.6	6.6	92.0
	$80,000 - $100,000	20	5.5	5.5	97.5
	$100,000 - $125,000	9	2.5	2.5	100.0
	Total	362	100.0	100.0	

5.2.2 Personal Factors

Eight questions that related to personal factors: gender, age of owner, education level, total hours worked, previous work experience, business dependency, personal funding, and supportive spouse, were presented to participants. This subsection presents descriptive findings of personal factors of the sample of 362 SMEs.

Gender

Table 4 provides the number and percentage of gender of small business owners in the sample. Those surveyed were predominantly male (93.1% of the sample), whereas females accounted for only 6.9% of respondents.

Table 4 : Gender in the sample

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	337	93.1	93.1	93.1
	Female	25	6.9	6.9	100.0
	Total	362	100.0	100.0	

Age of owner

Table 5 reports the number and percentage of the age distribution of small business owners in the sample. There was a wide range in the ages of the respondents from 25 to over 65 years. The greatest number of respondents (41.4%) fell within the 35-44 age category, followed closely by the 45-54 age

category with 39.8% of the sample. Those under the age of *35* accounted for only 15.2% of the sample, and the lowest number of respondents (3.6%) fell within the 56-64 age categories.

Table 5 : Age of owner in the sample

Age of Owner

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25-34 years	55	15.2	15.2	15.2
	35-44 years	150	41.4	41.4	56.6
	45-54 years	144	39.8	39.8	96.4
	55-64 years	13	3.6	3.6	100.0
	Total	362	100.0	100.0	

Hours worked

Table 6 provides the number and percentage distribution of hours worked of small business owners in the sample. There was a large range in the hours worked of the respondents from below 29 to over 60 hours. The greatest number of respondents (49.4%) fell within the over 60-hour category, followed closely by the 30-59 hours category with 45.3% of the sample. The lowest number of respondents (5.2%) fell within the below 29-hour category.

Table 6 : Hours worked in the sample

Hours Worked

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 29 hours	19	5.2	5.2	5.2
	30-59 hours	164	45.3	45.3	50.6
	Over 60 hours	179	49.4	49.4	100.0
	Total	362	100.0	100.0	

Years of experience

Table 7 shows the number and percentage distribution of similar work of small business owners in the sample. The greatest number of respondents (42.5%) fell within the 5-9 years category, followed by the 1-4 years category with 26.8% of the sample. The lowest number of respondents (3%) fell within the over 15 year's category.

Table 7 : Similar work in the sample

Similar Work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 1 year	56	15.5	15.5	15.5
	1-4 years	97	26.8	26.8	42.3
	5-9 years	154	42.5	42.5	84.8
	10-14 years	44	12.2	12.2	97.0
	Over 15 years	11	3.0	3.0	100.0
	Total	362	100.0	100.0	

Education Level

Table 8 provides the number and percentage distribution of education of small business owners in the sample. There were diverse distributions for respondents such as never attended school (18.2%), a training certificate (5.8 %), some high school (41.4%), a high school diploma (10.8%), some university (14.9%), a bachelor degree (6.9%), and a master degree (1.9%).

Table 8 : Education in the sample

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never Attended School	66	18.2	18.2	18.2
	Training Certificate	21	5.8	5.8	24.0
	Some High School	150	41.4	41.4	65.5
	High School Diploma	39	10.8	10.8	76.2
	Some Unversity	54	14.9	14.9	91.2
	Bachelor Degree	25	6.9	6.9	98.1
	Master Degree	7	1.9	1.9	100.0
	Total	362	100.0	100.0	

Business dependency

Table 9 shows the number and percentage distribution of business dependency of small business owners in the sample. Those surveyed were 62.7% of the sample with additional sources of employment income other than their business, whereas no additional sources of employment income other than the business accounted for 37.3% of respondents.

Table 9 : Business dependency in the sample

Business Dependency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	227	62.7	62.7	62.7
	No	135	37.3	37.3	100.0
	Total	362	100.0	100.0	

Personal Savings

Table 10 reports the number and percentage distribution of personal savings of small business owners in the sample. The greatest number of respondents (52.5%) fell within the less than $50,000 category, followed by the $50,000-$99,999 category with 31.8% of the sample. The lowest number of respondents (1.4%) fell within the over $500,000 category.

Table 10 : Personal savings in the sample

Personal Saving

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than $50,000	190	52.5	52.5	52.5
	$50,000-$99,999	115	31.8	31.8	84.3
	$100,000-$249,999	37	10.2	10.2	94.5
	$250,000-$499,999	15	4.1	4.1	98.6
	Over $500,000	5	1.4	1.4	100.0
	Total	362	100.0	100.0	

5.2.3 Business Factors

Nine questions related to business factors: bank financing, other financing, use of technological products, use of a business plan, age of business, geographic location, business structure, operating location, and number of employees. This subsection presents descriptive findings of the business factors of the sample of 362 SMEs.

Bank Financing

Table 11 provides the number and percentage distribution of bank financing of small business owners in the sample. The highest number of respondents (61%) fell within the none category, followed by the $5,000-$9,999 category with 11.6% of the sample. The lowest number of respondents (0.3%) fell within the $100,000-$324,999 category.

Table 11 : Bank financing in the sample

Bank Financing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	221	61.0	61.0	61.0
	Less than $5,000	23	6.4	6.4	67.4
	$5,000-$9,999	42	11.6	11.6	79.0
	$10,000-$19,000	22	6.1	6.1	85.1
	$20,000-$29,000	32	8.8	8.8	93.9
	$30,000-$49,000	15	4.1	4.1	98.1
	$50,000-$99,999	6	1.7	1.7	99.7
	$100,000-$324,999	1	.3	.3	100.0
	Total	362	100.0	100.0	

Private Loan

Table 12 demonstrates the number and percentage distribution of private loans of small business owners in the sample. There was a large range in the private loans (such as family, friends) of the respondents. The greatest number of respondents (59.1%) fell within the none category, followed by the less than $50,000 category with 30.1% of the sample, and 9.7% with the $50,000-$99,999 category. The lowest number of respondents (1.1%) fell within the $100,000-$249,999 category.

Table 12 : Private loans in the sample

Private Loan

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	214	59.1	59.1	59.1
	Less than $50,000	109	30.1	30.1	89.2
	$50,000-$99,999	35	9.7	9.7	98.9
	$100,000-$249,999	4	1.1	1.1	100.0
	Total	362	100.0	100.0	

Private lenders

Table 13 provides the number and percentage distribution of private lenders of small business owners in the sample. There was a large range in the private lenders (such as venture capitalists, business angels) of the respondents. The greatest number of respondents (85.4%) fell within the none category, followed by the less than $50,000 category with 12.7% of the sample, and 1.9% with the $50,000-$99,999 category.

Table 13 : Private lender in the sample

Private Lender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	309	85.4	85.4	85.4
	Less than $50,000	46	12.7	12.7	98.1
	$50,000-$99,999	7	1.9	1.9	100.0
	Total	362	100.0	100.0	

Use of technology

Table 14 reveals the number and percentage distribution of the use of technology of small business owners in the sample. The highest number of respondents (34.8%) fell within the 3 products category, followed by the 2 products category with 26.5% of the sample. The lowest number of respondents (1.4%) fell within the 7 products category. Among the 12 technical products: business telephone line**,** cellular phone, computer, photocopier, notebook computer, fax machine, internet access, voicemail**,** E-mail, business web-site, and pager, seven products such as hand phone, business telephone line, computer, email, business website, fax machine, and photocopier were found to be common use by small and medium owners in the specified sample.

Table 14 : Use of technology in the sample

Use of Technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2 Products	96	26.5	26.5	26.5
	3 Products	126	34.8	34.8	61.3
	4 Products	87	24.0	24.0	85.4
	5 Products	39	10.8	10.8	96.1
	6 Products	9	2.5	2.5	98.6
	7 Products	5	1.4	1.4	100.0
	Total	362	100.0	100.0	

Use of a business plan

Table 15 reports the number and percentage of the use of a business plan by small business owners in the sample. Those surveyed were 10.2% of the sample using a business plan for their business whereas small and medium business owners with no business plan accounting for 89.8% of respondents.

Table 15 : Use of business plan in the sample

Business Plan

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	37	10.2	10.2	10.2
	No	325	89.8	89.8	100.0
	Total	362	100.0	100.0	

Age of business

Table 16 provides the number and percentage distribution of the age of small and medium businesses in the sample. The businesses included in the sample have been in business for various lengths of time. The greatest number of businesses in the sample (47%) had been established for less than 5 years. The second largest category (46.1%) is the businesses in operation for between 5 and 9 years. The third category (46.1%) is the businesses in operation for between 10 and 14 years.

Table 16 : Age of business in the sample

Age of Business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 5 years	170	47.0	47.0	47.0
	5-9 years	167	46.1	46.1	93.1
	10-14 years	25	6.9	6.9	100.0
	Total	362	100.0	100.0	

Business structure

Table 17 provides the number and percentage distribution of the business structure of small and medium businesses in the sample. The greatest number of respondents (91.4%) fell within the sole proprietorship

category, and followed closely by the private limited company category with 5.5% of the sample. The lowest number of respondents (3%) fell within the partnership category.

Table 17 : Business structure in the sample

Business Structure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sole Proprietorship	331	91.4	91.4	91.4
	Partnership	11	3.0	3.0	94.5
	Private Limited Company	20	5.5	5.5	100.0
	Total	362	100.0	100.0	

Operation location

Table 18 shows the number and percentage distribution of the operation location of small and medium businesses in the sample. Those surveyed were 59.4% of the sample having home-based business whereas non-home-based businesses accounted for 40.6% of respondents.

Table 18 : Operation location in the sample

Operating Location

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Home-based business	215	59.4	59.4	59.4
	Non-home-based business	147	40.6	40.6	100.0
	Total	362	100.0	100.0	

Number of employees

Table 19 provides the number and percentage distribution of the number of employees of small business owners in the sample. The greatest number of respondents (72.1%) fell within the 10-19 employee category, followed by the 20-29 employee category with 19.6% of the sample. The lowest number of respondents (0.3%) fell within the 50-59 employee category.

Table 19 : Number of employees in the sample

Number of Employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10-19 employees	261	72.1	72.1	72.1
	20-29 employees	71	19.6	19.6	91.7
	30-39 employees	26	7.2	7.2	98.9
	40-49 employees	3	.8	.8	99.7
	50-59 employees	1	.3	.3	100.0
	Total	362	100.0	100.0	

5.2.4 Supportive environment

Question 27 presented respondents with three items. This question includes political stability and peaceful environment, government assistance such as tax incentives, infrastructure facilities and industrial zones, and loan facilities through state banks particularly for SMEs, and open economic policy of the government. This subsection presents descriptive findings of supportive environment of the sample of 362 SMEs.

The business owner of each firm was asked to indicate his/her perceptions on each of these factors listed in the questionnaire according to a five-point Likert scale. The scale for each variable ranged from 1 = Not important to 5 = Extremely important. A total of 362 business owners responded to the questionnaire. Three variables were included in this factor. They were open economic policy of the government, political stability and peaceful environment in the country, and government assistance and tax incentives. These factors were also considered satisfactory according to the reliability test of Cronbach's alpha (0.78) with a value greater than 0.75.

Political Stability and Peaceful Environment

Table 20 provides the number and percentage distribution of the political stability and peaceful environment perceived by small business owners in the sample. It reveals that 50 percent of respondents perceived this factor as "Extremely important"; 31.5 percent as "Very important"; and 18.5 percent as "Moderately important."

Table 20 : Political stability and peaceful environment in the sample

Political Stability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately important	67	18.5	18.5	18.5
	Very important	114	31.5	31.5	50.0
	Extremely important	181	50.0	50.0	100.0
	Total	362	100.0	100.0	

Government Assistance

Table 21 provides the number and percentage distribution of government assistance such as tax incentives, infrastructure facilities and industrial zones, and loan facilities through state banks particularly for SMEs perceived by small business owners in the sample. It shows that 39.8 percent of respondents perceived this factor as "Extremely important"; 30.7 percent as "Very important"; 22.1 percent as "Moderately important"; and 7.5 percent as "Slightly important."

Table 21 : Government assistance in the sample

Government Assistance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Slightly important	27	7.5	7.5	7.5
	Moderately important	80	22.1	22.1	29.6
	Very important	111	30.7	30.7	60.2
	Extremely important	144	39.8	39.8	100.0
	Total	362	100.0	100.0	

Open Economic Policy

Table 22 provides the number and percentage distribution of open economic policy of the government as perceived by small business owners in the sample. It demonstrates that 48.6 percent of respondents perceived this factor as "Very important"; 37.3 percent as "Extremely important"; and 14.1 percent as "Moderately important."

Table 22 : Open economic policy in the sample

Open Economic Policy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately important	51	14.1	14.1	14.1
	Very important	176	48.6	48.6	62.7
	Extremely important	135	37.3	37.3	100.0
	Total	362	100.0	100.0	

5.3 Multiple Regression Analysis and Findings

5.3.1 Personal Factor Run

A multiple linear regression analysis was conducted to examine the relationship between the Personal Factors – gender, age of owner, education, hours worked per week by the owner, similarity to previous work, business dependency, amount of personal funding invested by the owner – and Gross Annual Sales. Any of the variables that had significance levels exceeding 0.05 were removed from future analysis. It is the goal of regression to select the fewest independent variables necessary to provide a good prediction of the dependent variable where each independent variable predicts a substantial and independent segment of the variability in the dependent variable.

A total of seven independent variables were included in the initial run producing R^2 = 0.538 with approximately 53% of the variance in the dependent variable explained at a significant level of p = 0.0001. However, none of the variables in the run exceeded the variance inflation factor of ten, so issues related to collinearity were not a concern (Kanetkar, 2001).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.733[a]	.538	.529	17.16

a. Predictors: (Constant), Personal Saving, Education Level, Gender, Business Dependency, Age of Owner, Hours Worked, Similar Work

The table below reports the summary ANOVA (analysis of variance) table and F statistic, which reveals the value of F (58.837), is significant at the 0.0001 level. The value of F is large enough to conclude that the set of independent variables (gender, personal funding, education level, business dependency, age of owner, hours worked, and similar work) as a whole was contributing to the variance in the SMEs success.

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	121310.3	7	17330.047	58.837	.000[a]
	Residual	104268.3	354	294.543		
	Total	225578.7	361			

a. Predictors: (Constant), Personal Saving, Education Level, Gender, Business Dependency, Age of Owner, Hours Worked, Similar Work

b. Dependent Variable: Gross Annual Sales

The regression output was examined to determine if its parameters were likely different from zero. Hence, variables with significance levels greater than 0.05 (rounded to two decimal places) were immediately removed (gender, education level, and business dependency). Four variables emerged as the most likely predictors from the initial seven hypotheses. These variables included age of owner, hours worked, similar work, and personal funding in business. Therefore, this set of personal factors will be more closely examined in further statistical analysis. The list of variables, their beta coefficients, and statistical significance levels are presented in the table 23.

Table 23 : Output of personal factor run

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-50.870	5.669		-8.973	.000		
	Gender	4.536	3.582	.046	1.226	.206	.986	1.014
	Age of Owner	5.192	1.230	.160	4.221	.000	.908	1.102
	Education Level	-.226	2.194	-.004	-.103	.918	.933	1.072
	Hours Worked	11.183	1.698	.266	6.587	.000	.803	1.246
	Similar Work	11.864	1.025	.469	11.572	.000	.795	1.258
	Business Dependency	.815	1.928	.016	.423	.672	.936	1.069
	Personal Saving	5.329	1.015	.194	5.249	.000	.953	1.049

a. Dependent Variable: Gross Annual Sales

As shown in Table 23, the data supported four of the proposed hypotheses concerning the relationships between Personal Factors and Gross Annual Sales – *H2, H4, H6,* and *H7*, whilst the other three: *H1, H3,*and *H5* were not supported.

Table 24 : Supported and unsupported hypotheses concerning relationship between the Personal Factors and Gross Annual Sales

Unsupported Hypotheses	Supported Hypotheses
H1: A male-owned business generates greater sales revenue than a female-owned business. **H3:** The more educated the owner, the greater the sales revenue generated. **H5:** The more dependent the owner on income from business operations, the greater the sales revenue generated.	**H2:** The greater the age of the owner, the greater the sales revenue generated. **H4:** The greater the number of hours worked by the owner in the business, the greater the sales revenue generated. **H6:** The greater the similarity to previous work experience of the owner, the greater the sales revenue generated. **H7:** The greater the amount of financial investment by the owner in the business, the greater the sales revenue generated.

Each of the variables had varying effects on the dependent variable, with similar work providing the greatest contribution followed by hours worked, personal saving, and age of owner. This can be observed from the beta coefficients which indicate the importance level of the independent variables. Therefore, this initial regression run was able to examine the seven hypotheses presented in the literature and reduce them to four that will be more closely examined in the third stage including further regression and statistical analysis.

5.3.2 Business Factor Run

A multiple linear regression analysis was conducted to examine the relationship between the Business-Related Factors – level of financing (both bank and other), use of technology, use of a business plan, age of business, operating location, business structure, number of full-time employees – and Gross Annual Sales.

Similar to the Personal Factor run, the set of business-related factors included eight independent variables and produced $R^2 = 0.516$ with approximately 51% of the variance in the dependent variable, gross annual sales, being explained at a significant level of $p = 0.0001$. A number of the variables included in the initial run were insignificant to the regression equation and decisions as to their inclusion in the equation had to be made. This is significantly lower than that of the personal factors which indicates that the business variables are less likely to explain the variance in the dependent variable, gross annual sales, as opposed to the personal factors. However, none of the variables in the run exceeded the variance inflation factor of ten, so issues related to collinearity were not a concern (Kanetkar, 2001).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.719[a]	.516	.505	17.58

a. Predictors: (Constant), Number of Employees, Use of Technology , Operating Location, Other (non-bank) Financing, Business Plan, Business Structure, Bank Financing, Age of Business

In addition, the table below reports the summary ANOVA table and F statistic, which reveals that the F value (47.127), is significant at the 0.0001 level. The value of *F* is large enough to conclude that the set of independent variables (operation location, other financing, business plan, use of technology, bank financing, and number of employees) as a whole was contributing to the variance of "Gross Annual Sales."

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	116499.8	8	14562.480	47.127	.000[a]
	Residual	109078.8	353	309.005		
	Total	225578.7	361			

a. Predictors: (Constant), Number of Employees, Use of Technology , Operating Location, Other (non-bank) Financing, Business Plan, Business Structure, Bank Financing, Age of Business

b. Dependent Variable: Gross Annual Sales

The regression output was examined to determine if its parameters were likely different from zero. Based on the initial regression analysis, several variables were removed from the subsequent analysis such as other financing, use of a business plan, business structure, and operating location, for being not significant according to normal standards. Four variables emerged as the most likely predictors from the initial eight hypotheses. These variables included bank financing, use of technology, age of business, and number of employees. Therefore, this set of business factors will be more closely examined in further statistical analysis. The list of variables, their beta coefficients, and statistical significance levels are presented in the table 25.

Table 25 : Output of Business Factor Run

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-23.486	5.662		-4.148	.000		
	Bank Financing	4.421	.563	.302	7.853	.000	.923	1.083
	Other (non-bank) Financing	-.627	1.868	-.012	-.336	.737	.992	1.009
	Use of Technology	3.145	.820	.142	3.836	.000	.993	1.007
	Business Plan	.625	3.078	.008	.203	.839	.982	1.018
	Age of Business	20.232	1.601	.498	12.638	.000	.881	1.136
	Business Structure	1.247	1.931	.025	.660	.510	.988	1.012
	Operating Location	.826	1.901	.016	.435	.664	.979	1.021
	Number of Employees	6.167	1.405	.168	4.388	.000	.938	1.067

a. Dependent Variable: Gross Annual Sales

As shown in Table 25, the data supported four of the proposed hypotheses concerning the relationships between Business-Related Factors and Gross Annual Sales – *H8, H10, H12,* and *H15*, whilst the other four: *H9, H11, H13,* and *H14* were not supported.

Table 26 : Supported and unsupported hypotheses concerning relationship between the Business Factors and Gross Annual Sales

Unsupported Hypotheses	Supported Hypotheses
H9: The greater the amount of other (non-bank) financing obtained by the business, the greater the sales revenue generated. **H11:** Businesses that use a written business plan will generate greater sales revenue. **H13:** Businesses that are incorporated will generate greater sales revenues than their non-incorporated counterparts. **H14:** A business that is office-based will generate greater sales revenue than a home-based business.	**H8:** The greater the amount of bank financing obtained by the business, the greater the sales revenue generated. **H10:** Businesses using more technological products will generate greater sales revenue. **H12:** The greater the age of the business, the greater the sales revenue generated. **H15:** The larger the number of full time employees in a business, the greater the sales revenue generated.

Each of the variables had varying effects on the dependent variable, with the age of business providing the greatest contribution followed by bank financing, number of employees, and use of technology. This can be observed from the beta coefficients which indicate the importance level of the independent variables. Therefore, this initial regression run was able to examine the eight hypotheses presented in the

literature and reduce them to four hypotheses that will be more closely examined in the third stage including further regression and statistical analysis.

5.3.3 Supportive Environment Factor Run

A single multiple linear regression analysis was conducted to examine the relationship between the Supportive Environment – open economic policy of the government, political stability and peaceful environment in the country, and government assistance and tax incentives – and the SME Success as measured by "Gross Annual Sales."

A total of three independent variables were included in the initial run producing R^2 = 0.170 with approximately 17% of the variance in the dependent variable explained at a significant level of p = 0.0001. This is significantly lower than that of the business factors and personal factors which indicates that the personal variables are more likely to explain the variance in the dependent variable, gross annual sales, as opposed to the business factors and supportive environment factors. However, none of the variables in the run exceeded the variance inflation factor of ten, so issues related to collinearity were not a concern (Kanetkar, 2001).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.413[a]	.170	.163	22.87

a. Predictors: (Constant), Open Economic Policy, Political Stability, Government Assistance

The table below reports the summary ANOVA table and *F* statistic, which reveals the *F* value (24.481) is significant at the 0.0001 level. The value of *F* is large enough to conclude that the set of independent variables (political stability, government assistance and open economic policy) as a whole was contributing to the variance in SME success.

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38399.820	3	12799.940	24.481	.000[a]
	Residual	187178.9	358	522.846		
	Total	225578.7	361			

a. Predictors: (Constant), Open Economic Policy, Political Stability, Government Assistance

b. Dependent Variable: Gross Annual Sales

The regression output was examined to determine if its parameters were likely different from zero. The list of variables, their beta coefficients, and statistical significance levels are presented in the table 27.

Table 27 : Output of Supportive Environment Run

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-36.514	9.225		-3.958	.000		
	Political Stability	10.178	1.663	.312	6.119	.000	.891	1.122
	Government Assistance	.858	1.435	.033	.598	.550	.765	1.307
	Open Economic Policy	6.747	1.978	.183	3.411	.001	.802	1.246

a. Dependent Variable: Gross Annual Sales

As shown in Table 27, the data supported *H16,* in that the open economic policy of the government influence gross annual sales, and *H17,* in that political stability and peaceful environment influence gross annual sales, but failed to support *H18*.

Table 28 : Supported and unsupported hypotheses concerning relationship between the Supportive Environment and Gross Annual Sales

Unsupported Hypothesis	Supported Hypothesis
H18: The more government assistance, the greater the sales revenue generated.	***H16:*** The more open economic policy of the government, the greater sales revenue generated. ***H17:*** The more political stability & peaceful environment, the greater the sales revenue generated.

Two variables emerged as the most likely predictors from the initial three hypotheses. These variables included political stability and open economic policy. Therefore, this set of supportive environment factors will be more closely examined in further statistical analysis.

5.3.4 Combined Factors Run

A multiple linear regression analysis was conducted to examine the relationship between the Personal Factors, Business-Related Factors, and Supportive Environment – and the SME success measured by "Gross Annual Sales".

It was decided that, by combining the three independent equations, a stronger variance could be explained. Therefore, the variables that had significance levels of 0.05 or less (rounded to two decimal places) in their respective factor runs were loaded into a combined regression equation as independent variables while the dependent variable, gross annual sales, remained unchanged.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.802[a]	.644	.634	15.13

a. Predictors: (Constant), Open Economic Policy, Personal Saving, Use of Technology , Number of Employees, Age of Owner, Bank Financing, Political Stability, Age of Business , Hours Worked, Similar Work

The table below reports the summary ANOVA table and F statistic, which reveals the value of *F*(63.423) is significant at the 0.0001 level. The value of *F* is large enough to conclude that the set of independent variables as a whole was contributing to the variance in SME success as measured by sales performance.

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	145213.5	10	14521.350	63.423	.000[a]
	Residual	80365.172	351	228.961		
	Total	225578.7	361			

a. Predictors: (Constant), Open Economic Policy, Personal Saving, Use of Technology , Number of Employees, Age of Owner, Bank Financing, Political Stability, Age of Business , Hours Worked, Similar Work

b. Dependent Variable: Gross Annual Sales

With the inclusion of personal factors, business factors, and supportive environment, a total of ten independent variables was loaded into the new regression equation. Of the ten independent variables loaded into the equation, nine were statistically significant after the regression was run with a significant level lower than 0.05. They produced R^2 = 0.664, indicating that 66% of the variance was explained by this set of independent variables at a significant level of p = 0.0001.

However, none of the variables in the run exceeded the variance inflation factor of ten, so issues related to collinearity were not a concern (Kanetkar, 2001). Those producing the largest beta coefficients or greatest importance in the explanation of the dependent variable were (in order of importance) age of business, similar work, bank financing, personal saving, hours worked, number of employees, age of the business owner, use of technology, and political stability (See table 29).

Table 29 : Output of Combined Factors Run

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-66.320	7.154		-9.271	.000		
	Age of Owner	3.409	1.083	.105	3.148	.002	.910	1.098
	Hours Worked	6.570	1.573	.156	4.175	.000	.727	1.376
	Similar Work	6.239	1.160	.247	5.380	.000	.483	2.071
	Personal Saving	4.640	.898	.169	5.168	.000	.947	1.056
	Bank Financing	2.940	.502	.201	5.854	.000	.860	1.163
	Use of Technology	2.038	.717	.092	2.842	.005	.962	1.040
	Age of Business	9.526	1.829	.235	5.207	.000	.500	2.001
	Number of Employees	4.633	1.216	.126	3.809	.000	.928	1.078
	Political Stability	2.814	1.137	.086	2.476	.014	.836	1.197
	Open Economic Policy	.644	1.269	.017	.507	.612	.854	1.171

a. Dependent Variable: Gross Annual Sales

Therefore, this combined factor regression run was able to examine the ten hypotheses presented in the literature and reduce them to nine that will be more closely examined in the final stage. Because open economic policy was not related to SME success, it should be removed from the multiple regression equation to improve the accuracy of the model. After removing this and rerunning, the results of the multiple regression analysis are shown in final regression.

5.3.5 Final Regression Analysis

A multiple linear regression analysis was conducted to examine the relationship between the Personal Factors, Business-Related Factors, and Supportive Environment – and the SME Success as measured by "Gross Annual Sales".

As previously stated, it is the goal of this regression to select the fewest independent variables necessary to provide a good prediction of the dependent variable where each independent variable predicts a substantial and independent segment of the variability in the dependent variable. With this goal in mind, the regression analysis has enabled the researcher to examine the eighteen hypotheses and their subsequent relationship to SME success, the dependent variable in the equation. Through careful examination including successive runs, support has been found to accept nine of the proposed hypotheses.

In the final model, gross annual sales is used as the dependent variable while the list of independent variables include age of business, similar work, bank financing, personal saving, hours worked, number of employees, age of the business owner, use of technology, and political stability. Table 30 reports the results of testing the model.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.802[a]	.643	.634	15.12

a. Predictors: (Constant), Political Stability , Use of Technology , Personal Saving, Number of Employees, Age of Owner, Bank Financing, Age of Business , Hours Worked, Similar Work

The table above reports the model summary representing the impact of personal and business factors, and supportive environment, on SME success as measured by sales performance with the coefficient of determination R^2 = 0.643 at a significant level of p = 0.0001. The coefficient of determination indicated that the set of combined variables forming the final regression equation explains 64% of the variance in the dependent variable, gross annual sales. None of the variables in the run exceeded the variance inflation factor of ten, so issues related to collinearity were not a concern (Kanetkar, 2001).

In addition, the below table reveals the value of F = 70.590 is significant at the 0.0001 level. The value of F is large enough to conclude that the set of independent variables as a whole was contributing to the variance in SME success and the model is useful. The next step is to evaluate the significance of the correlation coefficients of the independent variables.

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	145154.5	9	16128.281	70.590	.000[a]
	Residual	80424.140	352	228.478		
	Total	225578.7	361			

a. Predictors: (Constant), Political Stability , Use of Technology , Personal Saving, Number of Employees, Age of Owner, Bank Financing, Age of Business , Hours Worked, Similar Work

b. Dependent Variable: Gross Annual Sales

The Coefficients table below reports the Beta values for all variables along with Standard Error, t statistics, and significance (p) values. The Beta for the constant is -64.489 with standard Error of 6.171, t value of -10.451, and significance level at .0001. It means that the constant is significant and a negative contributor to the model.

Table 30 : Output of Final Regression Equation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-64.489	6.171		-10.451	.000		
	Age of Owner	3.430	1.081	.106	3.173	.002	.912	1.097
	Hours Worked	6.712	1.547	.159	4.339	.000	.750	1.333
	Similar Work	6.305	1.151	.249	5.477	.000	.489	2.045
	Personal Saving	4.612	.895	.168	5.152	.000	.951	1.051
	Bank Financing	2.939	.502	.201	5.858	.000	.860	1.163
	Use of Technology	2.046	.716	.093	2.856	.005	.962	1.039
	Age of Business	9.544	1.827	.235	5.223	.000	.500	2.001
	Number of Employees	4.654	1.214	.127	3.833	.000	.929	1.077
	Political Stability	2.885	1.127	0.88	2.560	.011	.848	1.179

a. Dependent Variable: Gross Annual Sales

It can be seen that the variables Similar Work, Age of Business, Bank Financing, Personal Saving, Hours Worked, and Number of Employees are positively related to SME success as measured by sales performance at a significance level of 0.0001 and with the standardized correlation coefficient of .249, .235, .201, .168, and .127 respectively. In addition, they are found to be more important than other factors, for they are an almost perfect predictor of success for a small or medium sized business.

The variables Age of the Business Owner, Use of Technology, and Political Stability are positively related to SME sales performance at a significance level of 0.002, 0.005, and 0.011 respectively and with the standardized correlation coefficient of 0.106, 0.093, and 0.088 respectively. These variables show a positive relationship with the dependent variable gross annual sales.

5.3.6 Discriminant Analysis

The above regression analysis was useful in determining which of the independent variables from the sets was best at predicting variance in the dependent variable measure of gross annual sales. Nine independent variables emerged as statistically significant with varying magnitudes of contribution to the regression equation. As a secondary measure of analysis, the nine independent variables from the final regression equation were used as predictors in a discriminant function analysis.

The objective of discriminant analysis is to predict group membership based on a combination of predictor (independent) variables. It can also provide insight into the relationship between group membership and the variables used to predict group membership.

With the independent variables from the regression equation used as the predictor variables for the discriminant function, the analysis was using two distinct categories of gross annual sales as membership groups (Table 31). It was hoped that the predictor variables would be capable of predicting membership into one of two distinct groups with varying levels of gross sales for their businesses. Classification (see

table 31) would be made based upon those businesses with gross sales less than $62,500, those businesses with gross annual sales exceeding $62,500 (MEF, 2006). Therefore, insight could be gained into what set of variables is best at predicting membership in the two distinct membership groups.

Table 31 : Defined Categories for Business Size for the Supply of Services

Business Size	Defined Category
Small	Less than $62,500 in sales
Medium	$62,500 in sales and greater

The variables to be used as predictors were drawn from the final regression equation (see section Final Regression Equation) and include the use of technology, similar work, age of business, age of business owner, personal saving, hours worked, bank financing, political stability, and number of employees. If the predictor (independent) variables are able to increase the likelihood of prediction for classifying groups, then it would support the conclusion from the regression analysis that these variables are, in fact, capable of explaining the variance and contributing to the regression equation.

Eigenvalues

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.435[a]	100.0	100.0	.551

a. First 1 canonical discriminant functions were used in the analysis.

We used the DISCRIMINANT CLASSIFY feature of SPSS. One discriminant function emerged with the function explaining 100% of the variance. A significant predictive relationship was found, $\Lambda = 0.697$ $\chi^2 = 129.226$, $p < .0005$.

Wilks' Lambda

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.697	129.226	5	.000

As Table 32 shows, nine items: Age of owner, $F(1,360) = 13.352$, $p < .0005$; Hours worked, $F(1,360) = 37.117$, $p < .0005$; Similar work, $F(1,360) = 76.821$, $p < .0005$; Personal Saving, $F(1,360) = 34.990$, $p < .0005$; Bank Financing, $F(1,360) = 47.174$, $p < .0005$; Use of technology, $F(1,360) = 12.419$, $p < .0005$; Age of business, $F(1,360) = 66.479$, $p < .0005$; Number of Employees, $F(1,360) = 21.495$, $p < .0005$; and Political stability, $F(1,360) = 14.207$, $p < .0005$ contributed uniquely to the discrimination.

Table 32 : Tests of Equality of Group Means for the Effects of Personal Factors, Business Factors, and Supportive Environment on discriminating between small and medium enterprises within Cambodia

Tests of Equality of Group Means

	Wilks' Lambda	F	df 1	df 2	Sig.
Age of Owner	.964	13.352	1	360	.000
Hours Worked	.907	37.117	1	360	.000
Similar Work	.824	76.821	1	360	.000
Personal Saving	.921	30.961	1	360	.000
Bank Financing	.884	47.174	1	360	.000
Use of Technology	.967	12.419	1	360	.000
Age of Business	.844	66.479	1	360	.000
Number of Employees	.944	21.495	1	360	.000
Political Stability	.962	14.207	1	360	.000

Based on the above table, Age of the respondent explained 3.6% of the total variability explained, Λ = 0.964, p < .0005. A respondent's hours worked explained 9.3% of the total variability explained, Λ = 0.907, p < .0005. A respondent's similar work explained 17.6% of the total variability explained, Λ= 0.824, p < .0005. A respondent's personal saving explained 8.9% of the total variability explained, Λ = 0.911, p < .0005. A respondent's bank financing explained 11.6% of the total variability explained, Λ = 0.884, p < .0005. A respondent's use of technology explained 3.3% of the total variability explained, Λ = 0.967, p < .0005. A respondent's age of business explained 15.6% of the total variability explained, Λ = 0.844, p < .0005. A respondent's number of employees explained 5.6% of the total variability explained, Λ = 0.944, p < .0005. Political stability explained 3.8% of the total variability explained, Λ = 0.962, p < .0005.

The data support the notions that the greater the age of the owner, the greater the sales revenue generated (H2); the greater the number of hours worked by the owner in the business, the greater the sales revenue generated (H4); the greater the similarity to previous work experience of the owner, the greater the sales revenue generated (H6); the greater the amount of financial investment by the owner in the business, the greater the sales revenue generated (H7); the greater the amount of bank financing obtained by the business, the greater the sales revenue generated (H8); businesses using more technological products will generate greater sales revenue (H10); the greater the age of business, the greater the sales revenue generated (H12); the larger the number of full time employees in a business, the greater the sales revenue generated (H15); and the more political stability & peaceful environment, the greater the sales revenue generated (H17).

Therefore, the independent variables from the regression equation were used as predictor variables in the discriminant analysis to determine if they could increase the results for group membership. Collectively, they more than doubled the classification results by correctly classifying the businesses by sales levels.

Hence, they support the findings of the regression analysis in that they explain variance in gross annual sales and are very good predictors of this dependent variable.

5.3.7 Summary of Key Findings

As shown in Table 33, the data supported nine of the proposed hypotheses concerning the relationships between Personal Factors, Business Factors, Supportive Environment and Gross Annual Sales – *H2, H4, H6, H7, H8, H10, H12, H15,* and *H17*, whilst other four: *H1, H3, H5, H9, H11, H13, H14, H16,* and *H18* were not supported.

Table 33 : Supported and unsupported hypotheses concerning relationship between the Personal Factors, Business Factors, Supportive Environment and Gross Annual Sales

Unsupported Hypotheses	Supported Hypotheses
H1: A male-owned business generates greater sales revenue than a female-owned business. **H3:** The more educated the owner, the greater the sales revenue generated. **H5:** The more dependent the owner on income from business operations, the greater the sales revenue generated. **H9:** The greater the amount of other (non-bank) financing obtained by the business, the greater the sales revenue generated. **H11:** Businesses that use a written business plan will generate greater sales revenue. **H13:** Businesses that are incorporated will generate greater sales revenues than their non-incorporated counterparts. **H14:** A business that is office-based will generate greater sales revenue than a home-based business. **H16:** The more open economic policy of the government, the greater sales revenue generated. **H18:** The more government assistance, the greater the sales revenue generated.	**H2:** The greater the age of the owner, the greater the sales revenue generated. **H4:** The greater the number of hours worked by the owner in the business, the greater the sales revenue generated. **H6:** The greater the similarity to previous work experience of the owner, the greater thee sales revenue generated. **H7:** The greater the amount of financial investment by the owner in the business, the greater the sales revenue generated **H8:** The greater the amount of bank financing obtained by the business, the greater the sales revenue generated. **H10:** Businesses using more technological products will generate greater sales revenue. **H12:** The greater the age of the business, the greater the sales revenue generated **H15:** The larger the number of full time employees in a business, the greater the sales revenue generated. **H17:** The more political stability & peaceful environment, the greater the sales revenue generated.

6. Conclusions

The SME sector in Cambodia is an important contributor to the economic growth of the country. That emphasis has come out because small and medium enterprises including microbusinesses, account for

99% of firms and are responsible for 45% of employment (ADB, 2006). To date, research emphasis has been on the role of personal factors of business owners, business factors, and the supportive environment in influencing the business activity and outcomes of business owners. Having studied the success factors of 362 small and medium enterprises in Phnom Penh, our research leads to a new set of success factors with priority ranking as shown in Table 7.1 below. The results of this study found support nine hypotheses of contributions to sales performance in small and medium enterprises. These variables include (in descending order) previous work experience of the business owner, the age of the business, the amount of bank financing, the amount of personal funding, the number of hours worked, the number of employees, the age of the business owner, the use of technology, and political stability and peaceful environment in the country. Moreover, the success of Cambodia's SMEs depends on a mixture of these factors.

The most significant finding relates to the positive relationship between work experience and sales performance. Prior industry experience was found as the most important factor contributing to entrepreneurial success. Business owners get better positioned to succeed as they have built up competitive advantages through their past experience. Past job experience could have strengthened their core competencies. The idea for the business would come from a previous job, and the entrepreneur would develop some type of proficiency with his/her chosen products and/or services.

Another significant finding relates to the positive relationship between age of the business and sales performance. Age of the business was found as the second important factor contributing to entrepreneurial success in this study. With more years of operation, the learning curve for businesses is reduced and they develop core competencies in specific areas. These competences allow them to operate more efficiently and be more productive in their daily operations. More opportunity is present to retain existing clients while attracting new clientele in each subsequent year of operation. If businesses are capable of surviving the trials and tribulations of start-up and growth for five years, then their likelihood of success increases substantially.

Moreover, bank financing is considered as the third success factor for Cambodian SMEs, for it has a positive relationship with sales performance. The attainment of financing is crucial to the development and growth of businesses. In general, businesses require finances to purchase capital and to have an adequate level of cash flow to function and prosper.

Personal financing is the fourth success factor for Cambodian SMEs, for it has a positive relationship with sales performance. With their personal funding, business owners are able to succeed in higher business performance. By using personal financing, business owners can invest in their business with low overheads. This study reports that many of the current owners of businesses had been invested more of their personal money.

Also working more hours is a contributing factor in the success of an SME. The number of hours worked by the business owner was found to have a positive relationship with sales performance. The notion of "the more you put into it, the more you'll get in return" holds true for this variable. It seems logical that the more hours that are invested in a business, the more work that gets done, and the greater the payoff.

The number of full-time employees contributes also to the success of Cambodian SME, as it has a positive relationship with sales performance. It is likely that with increased employees will come with additional business. With more employees in the business, individuals are able to specialize in areas in which they are more competent. This can increase productivity and improve performance. In some instances, the addition of a new employee can bring new business if the individual has previous contacts or relationships with potential customers. Employees are resources that, if effectively cultivated, can generate greater sales revenue for any business.

The finding of our study also relates to the positive relationship between age of the business owner and sales performance. Therefore, the age of the business owner is considered as one of the SMEs's success factors. With years, it generally comes with increased contacts and relationships. Moreover, he/she may have had the opportunity to develop many of the talents, and build credibility and reputation through years of experience. Besides, older business owners were more likely to continue to operate a business instead of returning to be an employee of another's company. This study reported that many of the current owners of businesses had been in their fields for a number of years and had brought with them years of experience.

We also found that information and communication technology plays a crucial role in SME success. Based on the results of this study, using more technical products can increase efficiency and reduce costs for a business with fewer resulting errors. Moreover, it generates competitive advantages over their competitors in the market, for their businesses appear "technology affluent" and visible to both their customers and competitors. For example, the Internet has added a new dimension as businesses can operate using new media and be in constant contact with potential customers.

The last success factor of Cambodian SMEs is political stability and peaceful environment in the country, for it was found to have a positive relationship with their sales performance. When political certainty in the country appears in the minds of existing and potential investors, clients and small business owners, it makes business transactions flow smoothly. In Cambodia, most business owners are always careful with the political situation in the country, for they experienced long civil wars. Moreover, the data collection of this research was conducted during the 2008 National Election.

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APPENDICES

APPENDIX A: SURVEY INSTRUMENT

Purpose of the survey: The purpose of this survey is to obtain information on factors that influence sales performance of SMEs located in Phnom Penh. This information will be used for improving sales performance of SMEs in Cambodia.

Businesses to be surveyed: All small and medium enterprises (SMEs) including private enterprises which have less than 100 employees will be interviewed in this survey. Large companies, foreign-invested companies, joint-venture companies, NGOs, and state-owned enterprises are not included in this survey.

Respondents: This questionnaire should be answered by the owner who is responsible for the business. Please answer each question from the perspective of the business unit that you manage rather than from the general ideas or views, and please add any additional comments that you believe are appropriate.

Non commercialization and confidentiality: Data collected from the survey will be used to identify the success factors of Cambodian SMEs as a part of a doctoral thesis. It does not involve any commercial activities and all information will be treated in strictest confidence.

How to answer the questions: To answer the questions you simply circle or tick the most appropriate numbers, which are listed, excepting of some cases you are requested to fill the appropriate number into the blanks. For example, to answer the following question, if your position is “yes” you will tick the box as follows:

Were you married before you started your business?

1. Yes ☐
2. No ☐

Contact: Please call me with any questions or concerns in regard to this study.

Mr. Sok Seang
D.B.A. Candidate
National University of Management
Tel: 012 918171

Your cooperation by answering questions raised by the interviewer is viewed as the most important contribution to support for the development of SMEs in Cambodia.

Thank you for spending time to answer the questionnaire.

APPENDIX B: SURVEY OF SMEs

PART A: PERSONAL AND BUSINESS-RELATED FACTORS

Please answer all parts of the question. Place a tick in the appropriate box (Thibault, 2001).

[1] In which business sector do you primarily operate? (Please check only one)

1.	Retail	☐	5.	Manufacturing	☐
2.	Wholesale	☐	6.	Service	☐
3.	Agriculture	☐	7.	Restaurant/Hospitality	☐
4.	Construction	☐	8.	Other	☐

[2] Were you married before you started your business?

1. Yes ☐
2. No ☐

If yes, did your spouse support your decision of starting up this business?

1. Yes ☐
2. No ☐

[3] What is the legal form of your business?

1. Sole Proprietorship ☐
2. Partnership ☐
3. Corporation ☐

[4] In what year was your business established?

☐ _____

[5] Do you currently operate as a home-based business **(HBB)?**

1. Yes ☐
2. No ☐
3. No, but started as HBB ☐

[6] What is the current operating status of your business?

1. Full-time ☐
2. Part-time ☐
3. Other (specify) ☐

[7] How many employees (full-time equivalents) do you currently employ?

☐ _____

[8] Is your business located in the city?

1. Yes ☐
2. No ☐

[9] Do you have any additional sources of employment income other than your business?

1. Yes ☐
2 No ☐

[10] Please indicate how many years of experience (in total) you have in your present field of work?

1. Less than 1 year ☐
2. 1-4 yrs. ☐
3. 5-9 yrs. ☐
4. 10-14yrs. ☐
5. More than 15 yrs. ☐

[11] How many hours do you work (on average) for your business in a normal business week?

1. 29 hours or less worked per week ☐
2. 30-59 hours worked per week ☐
3. 60 hours or more worked per week ☐

[12] Did you write a formal business plan before opening your business?

1. Yes ☐
2. No ☐

[13] Please rate the extent to which business planning was done before opening your business:

Very Little **Very Much**

I ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐

[14] Does your company currently export any products and/or services?

1 Yes ☐
2 No ☐

[15] If yes to exporting, please rate to what extent:

Very Little **Very Much**

I ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐

[16] Please rate the extent to which you consider your business to be technologically advanced:

Very Little **Very Much**

I ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐

[17] Compared to other businesses of your size, please rate the extent to which you advertise and promote your business:

Very Little **Very Much**

I ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐

[18] Compared to other businesses of your **size,** please rate the extent to which your business monitors customer satisfaction:

Very Little **Very Much**

I ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐

[19] Please rate the extent to which you are doing the same or similar work now in your business as you were in your previous employment:

Not at All **Very Much**

I ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐

[20] Please indicate which of the following products and/or services you currently own, lease, or use for business purposes: **(Please check all that apply):**

1	Business Telephone Line	☐	8	Cellular Phone	☐
2	Computer	☐	9	Photocopier	☐
3	Notebook Computer	☐	10	Fax Machine	☐
4	Internet Access	☐	11	Voicemail	☐
5	E-Mail	☐	12	Electronic Organizer	☐
6	Pager	☐	13	Other (specify)	☐
7	Business Web-site	☐			

[21] How much outstanding authorized credit (bank financing) do you currently have for your business?

1 ☐ None	4 ☐ $10,000 - $19,999	7 ☐ $50,000 - $99,999
2 ☐ Less than $5,000	5 ☐ $20,000 - $29,999	8 ☐ $100,000 - $324,999
3 ☐ $5,000 - $9,999	6 ☐ $30,000 - $49,999	9 ☐ $325,000+

[22] How much of each of the following sources of finance does your business use?

Personal Savings	**Private Loan (family, friends)**	**Private Lenders**
1 ☐ None	1 ☐ None	1 ☐ None
2 ☐ Less than $50,000	2 ☐ Less than $50,000	2 ☐ Less than $50,000
3 ☐ $50,000 - $99,999	3 ☐ $50,000 - $99,999	3 ☐ $50,000 - $99,999
4 ☐ $100,000 - $249,999	4 ☐ $100,000 - $249,999	4☐ $100,000 - $249,999
5 ☐ $250,000 - $499,999	5 ☐ $250,000 - $499,999	5☐ $250,000 - $499,999
6 ☐ $500,000+	6 ☐ $500,000+	6 ☐ $500,000+

[23] What were the estimated gross annual sales for your business in your last year-end?

1	Less than $31,000	☐
2	$31,000 - $50,000	☐
3	$50,000 - $62,000	☐
4	$62,000 - $80,000	☐
5	$80,000 - $100,000	☐
6	$100,000 - $125,000	☐
7	$125,000 - $200,000	☐
8	$200,000 - $250,000	☐
9	$250,000+	☐

[24] What is your gender?

1 Male ☐

2 Female ☐

[25] What is your age group?

1	18-24 years	☐	4	45-54 years	☐
2	25-34 years	☐	5	55-64 years	☐
3	35-44 years	☐	6	Over 65 years	☐

[26] Education **(highest level completed)**

1	Never attended school	☐	6	Some University	☐
2	High School Diploma	☐	7	University Degree	☐
3	Training Certificate	☐	8	Master's Degree	☐
4	Some College	☐	9	PhD Degree	☐
5	College Diploma	☐			

PART B: SUPPORTIVE ENVIRONMENT

[27] Please circle the number in each line that best reflects the "importance" you attach to the following vis a vis their contribution to your firm and its success (Wijewardena and Zoysa, 2002):

1. Open economic policy of the government including market opportunities, a deregulated business environment, sound investment policy, etc.

Least Important **Most Important**

I ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐

2. Political stability and peaceful environment

Least Important **Most Important**

I ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐

3. Government assistance such as tax incentives, infrastructure facilities, and loan facilities through state banks particularly for SMEs, and small business owner training.

Least Important **Most Important**

I ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐

Business Name: _____

Address: _____

_____

Respondent Name: _____

Position: _____ Phone Number: _____

Additional Comments: _____

_____

_____