The Study on Relationship Education Background towards Credit Risk Management Knowledge and Awareness among Micro Business in Malaysia

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Abstract

Education background one of the important requirements for any types of business in handling with credit risk management issue. Besides that, knowledge and awareness are closely related on credit risk management because a business without knowledge and awareness are unable to handle credit risk wisely. Therefore, this study tries to investigate on the relationship of education background towards credit risk management knowledge and awareness among micro business in Malaysia. The purpose of this investigation is to examine either education background can influence awareness of credit risk management or knowledge of credit risk management. Result from this study shows that education background was influence awareness of micro business towards credit risk management and education background did not influence knowledge of micro business towards credit risk management.

Keywords: Education, Knowledge, Awareness, Micro, Business, Credit, Risk, and Management.

1. Introduction

Micro business plays an essential role for the development of Malaysia. Based on SME annual report year 2011, micro business represents almost 80% of business census. This figure showed the importance of micro business towards the development of country. To develop a good business performance micro business should be able to manage credit risk wisely. Therefore, this study tries to investigate on relationship education background towards credit risk management knowledge and awareness among micro business

2. Overview on Credit Risk Management

Loan is a contractual agreement between borrower and creditor that outlines with the obligation on the payment from the borrower towards the creditor. Loans may be secured with either payment guarantees or collateral to ensure a reliable source of secondary repayment. In a simple loan, credit risk arise because there is possibility that borrower are unable to meets it repayment obligation across the stipulated time. Credit may be offers to the individual or business entity. Credit facilities offers to individual namely as consumer loans, while offer to business entity called as commercial loans.

Estimating credit risk is a significant approach for all lending institutions. There are four common measures of credit losses which are Probability of Default (PD), Exposure at Default (EAD), Loss Given Default (LGD), and Recovery Rate (RR). Probability of Default (PD) means that the likelihood that the borrower will unable to make full settlement and timely repayment of its financial obligation. Exposure of Default (EAD) is the expected value of the loan at the time default. The amount of loss if there is a default which called as a Loss Given Default (LGD). Usually it's expressed as a percentage of the EAD. While, Recovery Rate (RR) is the proportion where the back recovers on the expected default loans (EAD).

3. The Concept of Credit Risk

Credit involves the activities of lending. It has either a meaning to finance directly or indirectly the expenditures of others against future repayment. Direct credit is a credit provided by financial institutions to a customer. While, indirect credit is a credit facilities granted by a trader to a customer. In business, credit risk may happen in two circumstances. First, risk as a borrower and second, risk as a lender.

According to Douglas et al. (2007), credit risk is the risk that a debt instruments will decline in values as a result the borrower's inability to satisfy the contractual terms of its borrowing arrangement. In financial institutions, credit risk occurs resulting from inability to collect anticipated interest earning as well as the loss of principle resulting from loan default.

4. The Factors of Credit Risk

Among of the causes of credit risk are lack of knowledge and awareness towards loan commitment. Knowledge becomes an essential element in managing credit risk. According to Marshall et al. (1996), they claimed that the failure of risk management as a result of lack of knowledge management. To extant this further, table 1 below shows the personal engaged in micro business by education qualification that represent the knowledge of Malaysian entrepreneur engaging in business. The table indicates that majority of the micro business under the category of secondary and below level of education. Whereas, financial system is very complex that consists of difficult procedure to understand. In fact, there are could be some problem associated with the micro business in managing credit facilities efficiently (Aris, 2007).

Table 1: Personal Engaged in Micro Business by Educational Qualification

Sector	Category		
	Degree	Diploma	Secondary and below
Manufacturing	4.1%	10.2%	85.7%
Service	7.6%	20.3%	72.1%
Agricultural	1.1%	4.1%	94.7%

Source: Aris, 2007

Unethical on utilization of loan may causes of credit risk in micro business. Micro business should be able to differentiate between business needs and personal needs. They should be aware to put aside their personal interest. Any credit commitment given need to be settled down by the borrower as stipulated agreement and use the money for business purpose accordingly. According to Norell (2001), when the borrower received more loans, there is a tendency that the excess loan may be diverted to other unproductive, none for business purpose. Hence, the awareness of unethical on utilization of loan among micro entrepreneur becomes causes of credit risk happen.

5. Credit Risk Management: Discussion on Net Working Capital Management

Net working capital defined by Steven and Petersen (1993), as total current asset less total current liability. There are three major component of working capital under current asset which are account receivable, inventories and cash. While, current liability consists of account payable and debt due in less than one year. Working capital can either be positive or negative. Positive working capital is current asset greater than current liability. While, negative working capital is current liability greater than current asset. The requirement of working capital depends on nature of business.

There are usually two types of nature of business which are manufacturing business and trading business. For manufacturing business it require a lot of time in converting raw material into finished goods. Therefore, capital remains invested for a long time in raw material, semi-finished goods and the stocking of the finished goods.

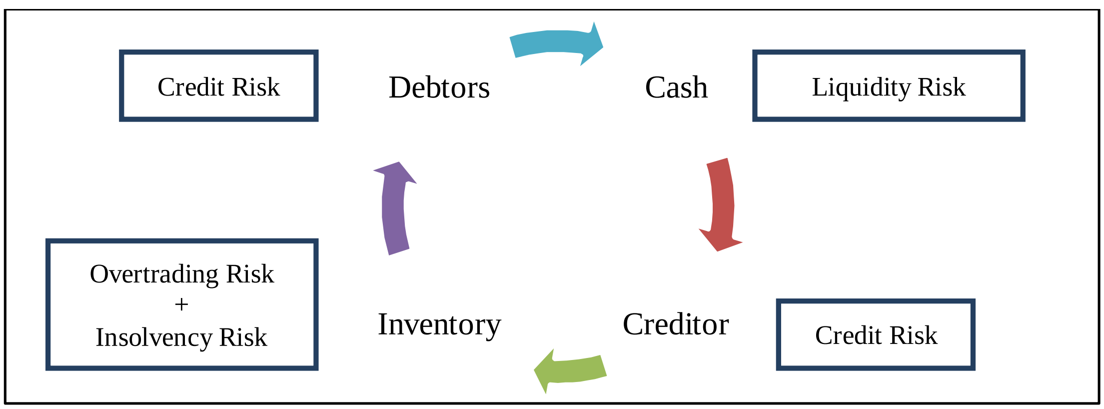
Consequently, more working capital is required. On the contrary, in case of trading business very little working capital is required because goods are sold immediately after purchasing or something the sale is affected even before the purchase itself. Furthermore, in case of service business, the working capital is almost nil since is nothing in stock.

The value of working capital has been explored in modern literature to explain why working capital becomes one of the key elements of the business. This is because of an inventory is a component of working capital that entering directly into the production function. Besides that, to achieve economies of scale, work in progress inventories are used by running large batch size. In addition, account receivable can affect sales to customer who are themselves liquidity of the firm. Cash and current liabilities is another component of working capital that affected cost through the liquidity of firm.

According to Deelof (2003), a popular of working capital management is the cash conversion cycle. This measurement is calculated the time lag between the expenditure for the purchase of raw materials and the collection of sales of finish goods. The shorter the cycle is the better for business as it means inventories are moving through the organisation rapidly, trade receivables are being collected quickly and the organisation is taking the maximum credit possible from suppliers. Besides that, the shorter the cycle indicated that the lower company's reliance on external supplies of finance. A business should careful in the event of excessive working capital. Its means too much money is invested in inventories and trade receivable that represent lost interest or excessive interest paid and lost opportunities that the fund could be invested elsewhere and earn a higher return.

The working capital cycle measure the time between paying for goods supplied to the business and the final receipt of cash to business from the sale of the goods. It is desirable to keep the cycle as short as possible. This is because it will increase the effectiveness of working capital. The working capital cycle is made up of four core components as figure 1:

Figure 1: Component of Net Working Capital Cycle



Source: Joseph, 2013.

Component of net working capital consists of creditor, inventory, debtors and cash. Every component in net working capital cycle has a significant impact towards the management of net working capital. To extent this further, figure 1 above shows the component of net working capital. In this cycle, there are elements of risk that can give an effect to the business's performance. Among of the elements of risk are credit risk, liquidity risk, overtrading risk and insolvency risk. Risk in the element of creditor happens when there is possibility a customer is unable to make a repayment obligation or called as a credit risk. Consequently gives an effect to the process of working capital. Moreover, in the element of inventory, the element of insolvency risk might be happen. It can be viewed at the process of overtrading.

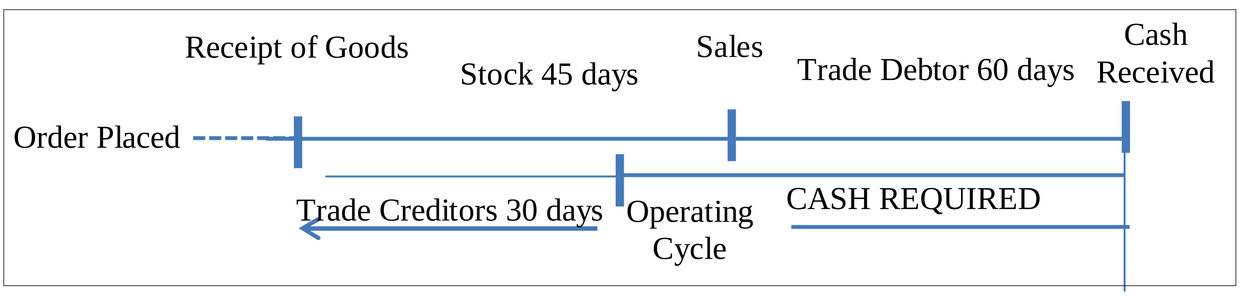
Overtrading risk represents the probability an imbalance between the orders a business accepts and the means it has to fulfil them. Commonly overtrading risk occurs in young and rapid expanding businesses. Besides that, overtrading is a trading of inventories in large volume and generates large amount of credit sales and as a result large volume of trade receivable. It might also be purchasing large amount of inventories on credit to maintain production at the same rate as sales and therefore have large volume of trade payables. This will extend the working capital cycle which will have an adverse effect on cash flow.

Consequently, if the company doesn't have enough working capital, it will find difficult to continue as there would be insufficient funds to meet all costs as they fall due. Overtrading may result in insolvency risk which means a company has probability of severe cash flow problem, and that a thriving company, which may look very profitable, is failing meets its liabilities due to cash shortage. The danger of overtrading is a profitable business can fail if it runs out of cash.

In addition, element of debtors in this cycle expose to the risk of credit whereby there is probability a business are unable to make a repayment obligation towards the inventories purchased in credit. As a result, it gives an impact to the next component of the cycle which is cash. Usually, a business use collected money from customer to make a payment to supplies. If there is a problem during collected money from customer it will impact to the trade payable as well. Indirectly, liquidity risk occurs in this stage. Liquidity is the ability of a business to pay its debt. In this cycle, liquidity risk occurs when there is probability of the businesses is unable to pay its debt. According to Joseph (2013), liquidity problem may leads to non-settlement of bank liabilities, suppliers and other creditors. Moreover, liquidity problem may causes from poor management of operation such as allowing too much stock to be bought and stockpiled.

Each step in cycle should be in control in order to achieve successful in cash management. Business will increase its liquidity if they can quickly convert the trading operation into available cash. By doing so, micro business will less reliant on the cash from customer and loan from a micro finance institutions. Indirectly it shows the business is less in term of credit risk. Besides that, in term of manufacturing company, working capital cycle denotes the time between a raw materials bought and the point at which the raw materials transform to finished good are converted into cash. According to Joseph (2013), the shorter the working capital cycle indicates the more efficient the company use of working capital. Figure 2 depicts the working capital cycle:

Figure 2: Working Capital Cycle



Source: Joseph, 2013

Usually, the operating cycle starts from the date of receipt of goods and not from the date of placing the order, because the supplier may not supply the goods and there is probability of cancellation by mutual understanding. While, the operating cycle ends with the collection of money from the debtor. The progress of operating cycle can be seen in the balance sheet which is from inventory to trade debtors and subsequently to cash. Identify the level of net working capital is crucial because if net working capital is too high its means the business has surplus of fund and which are not earning a return. However, if the net working capital is too low it's indicate that the business facing financial difficulties.

6. The used of Working Capital Management in Credit Management

Information from working capital position reveals business performance especially in credit management of a business. These can be proved that in the several firms, the working capital management is a very crucial component of the financial management (Deloof, 2003). It also measures the ability of a business in managing credit. Usually, micro business getting financial assistance is for the purpose to run and expand the business. The term "liability" implies a promise to various parties to obtain the funds. It is used to buy a plant and machinery as an asset of the business for the purpose of business operation. The amount of "liability" and assets can be seen in balance sheet of the business.

According to Hrishikes (2007), an entrepreneur may unable to hold many of the assets appearing on the balance sheet even assets denote wealth. But, they are able to hold fixed assets like plant and machinery which can generate goods and services that can give profit to the business.

The reason for entrepreneur do not like hold many current assets because according to Hrishikes (2007), an entrepreneur believe that production process may takes quite some of time where the finished product are not sold quickly. It means that a quantity of stock remains in the go down. In addition, the sales are not always in cash, credit are usually given to the debtor and takes some of time to collect the sales. Even debtor is an asset for the business but they do not like hold it in big amount because it's uncertain for creditors to makes a payment and the business has to keep a certain amount of safety stock all the time.

According to Hrishikes (2007), current assets may block business funds which should have been otherwise for business meeting working expenses. This process needs to fully understand by entrepreneur to ensure that they are aware on every cycle of operation that can generate current assets to be funded for immediate financing of working expenses done by working capital. Able to manage and well understand on working capital is crucial part in order to manage business credit.

7. Empirical Study on Credit Risk Management

Micro business is one of the important contributions towards the development of nation. Therefore, the longevity of micro business should be given special attention from many parties as well as in the aspect of business activities especially in managing credit risk. This section is aims to present the empirical study on credit risk management.

Many of the study conducted on probability of default among micro business towards its repayment obligations. Among of the researchers that conduct the study on the probability of payment default are Roslan Mohd Zaini Abd Karim (2009), Fenne Chong (2010), Martin Omara (2007), Lana Ivicic and Sasa Cerovac (2009), Alebachow Goshim (2011) and Takyi Emmanuel Ankrah (2011). According to Roslan Mohd Zaini Abd Karim (2009) the probability of default for loan repayment was influenced by gender of the borrower, types of business, amount of loan and the period of loan. While, other researcher studies on the strategy to manage credit risk in the business level as well as in the banking sectors to prevent the probability of payment default. In their study, the banking sector in Uganda was used fixed monthly repayment schedule for customer to repay their loans. While, one study in Ghana reveals that the micro-credit institutions had higher default rate, operating far below the Bank of Ghana. In addition, the study suggest that the bank should adopt innovating lending methodologies such as group lending and dynamic lending to joint liable-liable group.

Managing and analysing risk is a vital process for all business in over the world. Alina Miheala Dima (2009) conducted the study on credit analysis claimed that the evaluation of company's financial statements and the ratios that indicate the efficiency of the company's performance will thus provide an indicator of probability of success of the ability to service its debt in the future. Indirectly, it's indicates that financial statements is important in order to evaluate company's performance. Besides that, Micro finance institutions will offer micro credit facilities for any thriving business. Basically, they would request for the financial report before approve loan application from the applicant.

Monitor and measure the risk within a micro business loan portfolio is important. Risk rating system is used to monitor and measure risk in the business. In the case of credit risk, credit rating system can be used to measure and monitor credit risk in a business. There are many researchers conduct the study on the risk rating system and credit rating system. Among them are Donna Nails (2012), and LykkeEg Anderson and Osvaldo Nina (2000).
Recently, there are many credit risks modelling have been introduced by JP Morgan with Credit merits, KMV, Credit Suisse Financial Products (CSFP) and McKinsey and company, which provides alternative modelling choices. Credit provider should determine what kind of model they would use. There are many study conducted on the credit risk modelling to study regarding the challenges, consequences, and calculation of probability of loss distribution in credit portfolio. Among of the researches that study on this particular area are Linda and DeLong et al. (2003), M. Hashem and Bjorn-Jakob (2005), Weal H. Fayyad (2008), Simone and Hans (2007) and Key Giesecke (2007). There are four modelling that widely used by industry to value credit risk which are credit migration approach, structural approach, credit risk$^+$ and credit portfolio view.

All the studies above showed that micro credit facility gives a positive impact to the micro business. But, a study conduct by Paul Swider (2004) reveals that however 13 million micro entrepreneurs worldwide have benefited from micro credit, but there remain 200 million families who have work hard but cannot access affordable credit. Some of the entrepreneur do not access for the credit facilities is due to lack of knowledge on the facilities provided.

Managing working capital effectively will result in better profitability for any business. This is due to various study was reveals that profitability of a firm was depend upon a management of working capital. There are many study conducted to show the important of management of working capital which are Agyemang and Michael (2013), Mohammad Morshedur (2011), Michael Nwidobie (2012), Azhagiah and Muralidharan (2009), Stephen Kirwa (2012), Sayeda Tahmina (2011) and Paul and Stephen et al. (2013). Realize on the importance of working capital management, this study try to examine the relationship of knowledge, awareness and attitudes of micro entrepreneur towards the management of working capital that can be used as the approach to manage credit risk.

To recap, this study will fill the gap that has been identified from previous related literature. Among of the gap has been identified are the lack number of study on the management of credit risk among micro business, thus, this study fill the gap by investigate either the factors of knowledge and awareness can influence credit risk management among micro business.

8. Methodology

Research method is a method used for searching new and useful information for a particular topic with systematically process, analyze and interpret the information. According to S. Rajasekar et al. (2013) research method are various procedures, scheme and algorithms used in research. Research methodology is a systematic way to solve a problem. In other words, the procedures that involve in explaining, describing, and predicting the outcome are called as research methodology. Research methodology is necessary to design a method that will be used to solve the problem.

8.1 Data Collection Method

The data on this study will be collected by using survey questionnaire. Questionnaire was distributed among micro business entrepreneur. The purpose of survey among 460 entrepreneurs is to examine on the factors that may influence credit risk management.

8.2 Data Analysis

The data on this study will be analyzed by using descriptive statistics analysis and one-way between groups analysis of variance (ANOVA). Among of the data analyzed were total score of knowledge (TSK), total score of awareness (TSA) towards group education background.

9. Result

This section presented empirical finding and data analysis collected from questionnaire among micro business. The empirical finding further analyzed descriptive analysis. The data analysis for the finding from the data collected as presented in the following subheading.

9.1 Descriptive Analysis of Education Background

This section will present the findings regarding education background. Descriptive statistics analysis was employed for this part. In the demographics question, there is question regarding education background that consists of level of education possessed by micro business. Among of the choices given are SPM, certificate, diploma, degree and masters and PhD. Below are the table of education background findings:

Table 2: Education Background

No.	Education Background	Frequencies	Percent (%)
1	≤ SPM	176	38.3
2	Certificate	60	13.0
3	Diploma	108	23.5
4	Degree	103	22.4
5	Masters and PhD	13	2.8
6	Total	460	100.0

Based on the table above, it shows that 176 respondent whereby 38.3 per cent of their education background was ≤ SPM. While, micro business possess with certificate was 13.0 per cent equivalent to 60 respondents. Besides that, the respondent with diploma and degree were their frequencies of 108 equivalents to 23.5 per cent and 103 equivalents to 22.4 per cent respectively.

Moreover, 13 respondents with the possession of master's and PhD were equivalent to 2.8 per cent. Therefore, it clearly shows that mostly education background's respondent in this study were ≤ SPM. Only a small number of respondent possess masters and PhD as their education background.

9.2 One-Way between Groups Analysis of Variance (ANOVA)

Analysis run by ANOVA is between independent variable of education background and dependent variables of knowledge and awareness. The purpose of this analysis is to compare the means score of the group. Subjects are dividing into five groups according to the business sector (Group 1: ≤ SPM; Group 2: Certificate; Group 3: Diploma; Group 4: Degree; Group 5: Masters and PhD). Then, following are the summary result for ANOVA:

Table 3: Summary on Comparing Means Score for Group Length of Business

	Education Background	**N**	**Mean**	**Standard Deviation**	**Significant Value**
TSK	1. ≤ SPM	176	47.20	5.55	.041
	2. Certificate	60	47.50	5.48	
	3. Diploma	108	47.81	6.30	
	4. Degree	103	49.28	5.02	
	5. Masters and PhD	13	49.23	5.21	
TSA	1. ≤ SPM	176	39.77	7.03	.000
	2. Certificate	60	40.30	5.56	
	3. Diploma	108	43.05	6.88	
	4. Degree	103	44.90	5.54	
	5. Masters and PhD	13	45.62	6.37	

Table 3 shows the analysis to measure means score of education background towards knowledge, and awareness measured by total score of knowledge and total score of awareness. Analysis to compare means for education background group towards total score of knowledge is not significant. Only the analysis to compare means between groups of education background towards total score of awareness is significant at .000. The Multiple Comparisons table can explain the result in details:

Table 4: Multiple Comparisons

(1) Education Background	(J) Education Background	Mean Difference	Significant Value
1 ≤ SPM	2 Certificate	-.527	.983
	3 Diploma	-3.27*	.000
	4 Degree	-5.13*	.000
	5 Master and PhD	-5.84*	.016
2 Certificate	1≤ SPM	.53	.983
	3 Diploma	-2.75	.067
	4 Degree	-4.60*	.000
	5 Master and PhD	-5.32	.059
3 Diploma	1≤ SPM	3.27*	.000
	2 Certificate	2.75	.067
	4 Degree	-1.86	.232
	5 Master and PhD	-2.57	.661
4Degree	1 ≤ SPM	5.13*	.000
	2 Certificate	4.60*	.000
	3 Diploma	1.86	.232
	5 Master and PhD	-.71	.996
5 Master and PhD	1 ≤ SPM	5.84*	.016
	2 Certificate	5.32	.059
	3 Diploma	2.57	.661
	4 Degree	.71	.996

The mean difference is significant at the 0.05 level.

This table shows the exactly where the differences among the group occur. Any value under column label Mean Difference with the sign of asterisk (*) means the two groups being compared are significantly different one another at the $p<.05$. Post-Hoc comparison using the turkey HSD test indicated that mean score for Group 1(*M = 39.77, SD =7.03)* was significantly different from Group 3 (*M* = 43.05, *SD* = 66.88), Group 4(M = 44.90, SD = 5.54) and Group 5 (M = 45.62, SD = 6.37), but did not differ significantly from Group 2 (M = 40.30, SD = 5.56). Besides that, it indicates the means score for Group 2 (M = 40.30, SD = 5.56) was significantly different from Group 4(M = 44.90, SD = 5.54) and did not differ from Group 1, 3 and 5. In addition, Group 3 (*M* = 43.05, *SD* = 66.88) was significantly different from Group 1 (*M = 39.77, SD =7.03)* and did not differ from Group 2, 4 and 5. Moreover, Group 4(M = 44.90, SD = 5.54) was significantly different from Group 1(*M = 40.98, SD =6.74)* and Group 2 (M = 40.30, SD = 5.56), but did not differ significantly from group 3 and 5. Besides that, Group 5 (M = 45.62, SD = 6.37) was significantly different from Group 1(*M = 40.98, SD =6.74)* and did not differ from Group 2, 3 and 4.

10. Conclusion

This study concluded that education background was influence credit risk management awareness but did not influence credit risk management knowledge. Besides that, the analysis using post-hoc test was showed the result on education background that influences credit risk management awareness in details. It presents the significant different in means score between group. Among of the group that significant were between group 1 with groups 3, 4 and 5, between group 2 with group 4, between group 3 with group 1, between group 4 with groups 1 and 2, and between groups 5 with group 1.

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