

CHAPTER II

CREDIT RISK MANAGEMENT IN CONVENTIONAL BANKING

APPROACH

2.1 Introduction

This chapter presents credit risk management in the conventional banking approach, starting with an introduction in section one. Section two discusses the Malaysian banking system in general and gives an overview of banking development in Malaysia. Section three discusses the concept of risk and risk management from the perspective of the conventional approach. Section four discusses the significant value of credit risk in the evaluation process. Section five discusses credit risk management in the banking system. Section six discusses the empirical study. Lastly, section seven concludes this chapter.

2.2 Malaysian Banking System

In referring to Bank Negara Malaysia, the banking system in Malaysia comprises three types. The first type is monetary institutions, which include the conventional banks, Islamic banks and the Central bank. The second type is non-monetary institutions, which include the merchant banks, development banks and also credit and insurance companies. Lastly is the representative office of offshore banks and foreign banks. A bank also plays an important role in providing functions and services to ensure the sustainability of economic growth. The Central Bank in Malaysia is Bank Negara Malaysia (BNM), which was established in 1959. Bank Negara Malaysia (BNM) led to the growth of the dual banking system in Malaysia,

which comprises the conventional banking system and Islamic Banking system, and provides for the continuous development of the banking system as a competitive and secure banking system. In addition, the development of the banking system is reliable as BNM administers the regulations and financial rules for Malaysia. According to Bank Negara Malaysia (BNM), currently, there are 22 commercial banks and 11 Islamic banks, thus indicating a robust future for the dual banking system in Malaysia.

With regards to the introduction of Islamic finance, Malaysia is at the forefront among Southeast Asian countries with the establishment of the first full-fledged Islamic banking system – Bank Islam Malaysia Berhad (BIMB) in 1984. The Islamic banking services together with the number of banking institutions increased in the ten years following its establishment (Rosley, 2003; Kreitner, 2008; Nakagawa, 2009). Towards moving to the Islamic global trend of banking business, Islamic banks in Malaysia have improved their performance as an alternative banking system. In fact, Islamic banks have also led to the hallmark of *Shariah* compliance for the Islamic banking system among the majority of Muslim countries.

Towards the growth of the Islamic banking system, in 1993, Bank Negara Malaysia (BNM) took an innovative measure to allow conventional banks to open an Islamic window of finance by adopting the Interest-free Banking Scheme. Hence, with the policy of permitting the offering of Islamic banking products to foreign banks, the number of banks has increased and sustained in the financial industry. In addition, the development of the Islamic Financial Services Board (IFSB) on 2003 has played an important role in establishing the standards to cater to the operations of Islamic banks due to its unique features, which focus on robust practices and systems in managing risk.

2.3 The Concept of Risk and Risk Management

Management is an important role for each organization to perform well by adopting efficient acquisitions and coordinating the utilization of resources (Drucker, 2008; Rejda, 2010). The concept of management, in general, is the act of problem solving, as the management solves the problems that occur in organizations, and, the term management itself is to identify and control the issues, and chooses an appropriate course of action (Kreitner, 2008). Risk on the other hand can be defined as the probability of something unpleasant happening that occurs when there is a likelihood of failure to achieve the goals targeted (Bessis, 2010). Using the banking system as an example to explain more about risk, bank managers seek to manage the occurrence of risks as they balance the risks against the ability for profit by using value-at-risk (VaR) models. This activity in the field of the banking industry may mitigate uncontrolled risks through the acts of management, such as the use of technical planning and decisions, thus establishing the structures required to manage risks in their daily operation and business.

A variety of risks occur in banking business and associated operations, which the banks have to mitigate, eliminate or ignore (Kolari & Gup, 2004). Therefore, risks in banks can be managed by taking a plan of action to manage risks in order to reduce the possibility of risk hazards. To attain this objective by banks, they need to fully identify the types of risk, measure and assess the intensity, and determine how to control them coherently. This is called risk management (Bessis, 2010).

Risk management is the process of identifying and evaluating the exposure loss, and implementing the most appropriate methodologies for treating such exposure (Saunders & Cornett, 2010). To extend this further, Bessis (2010) opines that the

objective of risk management is to calculate and measure each type of risk as it needs to be controlled and monitored. In general, risk management is vital for each bank to perform well in their business activities because the aim is to help management activities to achieve the organization's aims, since risk management is a continuous process that depends entirely on the natural environment of the bank itself and includes the internal and external changes in the environment. Figure 2.1 below shows that the first step in risk management is the identification of the risks that occur.

Figure 2.1: Risk Management Steps



Source: Bessis, 2010

Identification should be based on the categories of risk, such as market risk, operational risk and credit risk. Therefore, the study focuses on the credit risk categories. Once it has been identified, risks must be measured depending on the level of intensity, and, thus, risk assessment must ensure that the consequences are good and being done coherently. The next part of risk management is risk controlling, which is needed to ensure that the intensity of risks is reduced or eliminated, and, lastly, is monitoring risks as sustainable monitoring in risk management is achieved by expecting that the outcomes are as desired by the bank itself.

According to Tchankova (2002), the first step in risk management is important, as each organization needs to identify the risks, and, if not, there is no component of risk management. Therefore, the inability to identify risks may lead to

the financial losses of banks. When identifying the risks, bank managers should ask key questions about risks, such as what types of risk are associated and who might be involved in the occurrence of risks. All of these questions will be answered when a comprehensive analysis is undertaken, and risk identification will depend on the area of application, such as the nature of activity, availability of resources and regulatory requirements. Therefore, the most critical stage is risk identification as this is the starting point before risks can be measured.

After identification of the risks is analyzed, the measurement of risks is the next phase to ensure that the nature of risk is measured in an appropriate manner. Risk measurement is important because this stage identifies the methodologies of risk management by identifying the occurrence of risks, and determining the known results to measure how much value is at stake or the cost associated. Moreover, the understanding of risk measurement is vital for banks, because it will enhance bank performance and profit. Therefore, it is important for each bank to consider a sound risk measurement framework for regulatory and competitive reasons. In addition, to have good risk measurement, banks should evaluate and take action to address the risk outcome by using risk factors to improve the probability that the particular event will occur. Therefore, several methodologies are used; for instances, scenario analysis, stress testing, sensitivity analysis, value-at-risk (VaR) and duration analysis. With the different techniques used by banks, each of them may apply different risk measurement techniques depending on their choice.

According to Goodhart et al. (2005), assessment of risk is needed to analyze the severity of the impact and controllability. Risk assessment is needed because banks want to know what is at risk and what events cause benefit or harm. This is

because each bank wants to know the potential for the occurrence of risks, and, if it happens, how they can control them. Therefore, understanding the risks and the effects and consequences actually provides the basis for the banks to determine how important the risk is naturally. Thus, evaluation of the risk may then be used when risk analysis is undertaken. According to Mundt (2008), risk evaluation is to be undertaken to give a ranking, such as low for tolerable, medium for low as reasonably practical, and, lastly, high, which refers to intolerable. These three (3) different rankings, identify the bank's standpoint on their decision. Therefore, using such a quantitative assessment provides the strength and weaknesses of this system as this process of risk assessment can be implemented to enhance the risk management framework.

Furthermore, by implementing some techniques, physical measures, training staff to eliminate risks and financial losses, banks can control the occurrence of risk coherently. In fact, risk cannot be avoided. Therefore, the choice is to control the risk.

Moreover, monitoring the risk is important because by adapting this step in the process of risk management, banks may attain the results that are in line with the targeted objective. If not, they should re-align the results. This is why monitoring risk is needed in this phase because it is in keeping with risk control. Therefore, risk managers should make a constant assessment, and control and monitor the occurrence of risk at the right time.

2.4 Significant Value of Credit Risk in the Evaluation Stage

In banking business, especially in loan/financing evaluation, the most challenging and important management of risk is the credit evaluation process, as it is the domain of financial analysis (Baesens et al., 2003). To evaluate the credit risk, banks should identify the typical credit process when granting a loan (credit) in commercial lending. This includes the credit origination, credit review and appraisal, and, lastly, is credit approval. When granting credit in commercial (business) operations, banks have to decide whether or not to approve the credit application. This is because the credit evaluation affects the value/return of the banks and the performance of the banks, as well as the asymmetric information of the banks. In addition, the occurrence of credit risk in the evaluation process may happen when the banks fail to identify the elements of credit risk after evaluating the customer's or client's performance.

Therefore, the first step in pre-approval of credit is evaluation process as if banks unable to perform well at this stage; they will have emotional impact to non-performing loan plus the cost-effectiveness of the banks (Bessis, 2010). This also involves many processes, such as recovery and legal proceedings, which will reduce the bank's income/profit. The emphasis is on the importance of credit evaluation as the first screening process, such that, if there is a problem, the bank can detect it at early stage, and, hence, the bank's income/profit can be saved (Akkizidis and Khandelwal, 2009).

2.4.1 Credit Risk and Value/Return

Credit risk is defined as a bank's and a borrower's potential that miscarry to achieve its obligations (Shimko, 1999; Apostolic et al., 2009). By maintaining exposure to credit risk, banks need to have credit risk management inherent in the entire credit portfolio as well as the risk in individual credit or transactions. Good management of credit risk is a crucial component of a comprehensive approach to risk management and its need for the long-term growth of the financial industry (Donald & Ronald, 1996).

Credit risk management is vital as risk management. The reason is that credit risk management is at the heart of risk management. In addition, unavoidable risk is dependent on the bank's activities through which banks target to make profit and thus create value. Therefore, to achieve this aim, risk should be managed and cannot be avoided. If not, this may have a negative effect on banks attaining their goals. According to Froot et al. (1993) and Rose (2001) on the credit risk in commercial loan activities, when the borrowers are unable to perform well in the contract it possibly will affect the banks as the lender holding the loan contract. Thus, for conventional banks practices they charge interest to the borrowers who are late in making payment (Akkizidis and Khandelwal, 2008). As refer back to the definition, this situation occurs as increase in credit risk in perspective of borrowers and lenders (Apostolic et al., 2009). Therefore, as mention earlier interest (*riba*) are imposed to borrowers, and hence affects to the value/return for lenders as this is called income for them.

To extend this further, according to Nelson and Schwedt (2006), credit risk analysis was previously limited to individual loans. However, over time, and as banks have gone global, managing credit risk has been transformed by reviewing loans and

analyzing portfolio. The ease with which banks may manage credit risk may eliminate asset issues before they turn into losses.

All banking systems face credit risks to some extent. The most important thing is that the banks are able to understand and manage credit risk. This center's on the business in which banks act as an intermediary. To extend this further, the key risk that has greater influence on bank performance is credit risk (Sinkey, 1992). Therefore, increasing the credit risk may lead to less capital adequacy and liquidity of banks. This is because both are important for banks, as to cover up financial losses, banks will look for other financial resources. In addition, unmanageable bank liquidity makes it hard for banks to achieve their customers' demands, which may lead to bankruptcy. Therefore, it is best to show that credit risk is related to the bank's value or returns. When credit risk arises it may have a negative effect on returns and vice versa.

2.4.2 Credit Risk and Bank Performance

According to Gardener (2007), in achieving good credit risk management and profits, banks should also have a tight relationship with the profitability, liquidity and capital solvency. The impact of credit risk forces the globalization to diminish it because of the impact on banks performance (Paradi and et al., 2004). Therefore, it is important for a bank to implement sustainable practices and strategies to create value/return as the bank's target to achieve profit. This is the capability of the bank to generate income against loss. Bank performance includes good management of liquidity, capital adequacy and profitability, as each element shows how a bank manages risk, which affects its performance as a whole (Boffey and Robson, 1995). In addition, if banks fail to manage credit risk, there is a possibility that it will affect

others and thus the value/return. Profitability is the art of a good business and is a way for banks to ensure that liquid cash equals or achieves the cash demands from the customers and that the unpaid loans must be equal too, as in the case of default payments. Therefore, for a bank to strive in a competitive market, deficit must be eliminated because it affects the performance of the bank itself.

2.4.3 Asymmetric Information

The asymmetric information of banks is only known for borrowers, whereas, in contrast, it is invisible to the bank in terms of the customer, and, thus, it is important for banks to have appropriate information before making a credit granting decision (Shibata & Tian, 2010).

Crawford et al. (2013) stated that the asymmetric information for new borrowers has a strong relationship with banks. Therefore, it is important for a bank as the provision of asymmetric information identifies adverse selection and moral hazard. Therefore, soundness of asymmetric information is needed to quantify the impact on pricing and welfare, and the role that imperfect competition plays in mediating these effects.

On top of that, a lack of asymmetric information can be very detrimental. Therefore, it is important for banks to have better information regarding the financial circumstances (Bruns, 2004). If not, bankruptcy may reach banks as it affects the savers should they turn up for cash withdrawals. Therefore, for good credit risk management and its strategies it is always good for banks and borrowers to have adequate information about each other.

2.4.4 The Elements of Credit

When giving commercial loan to customers, banks use credit tools to mitigate financial losses and undertake a potential analysis by using the five C's of credit and CAMPARI elements of credit. By adopting the required information (quantitative and qualitative), banks can assist the bad and potential borrowers through a screening process. Baiden (2011) discussed the five C's of credit – credit, character capacity, capital, collateral and conditions. Each represents different analysis. According to him, character presents the determination to achieve the loan obligation of customers. This is investigated by conducting interviews about the habits of the customers in making payments. In addition, capital represents a bank's net worth, which is the reserve a business has in respect of unforeseen problems. Capital adequacy is needed for a lender to evaluate the degree of obligation by stakeholders and thus reduces the occurrence of moral hazard. In addition, collateral helps in loan security, which it provides to the banks to have other repayment sources if the main source of payment is not available. Baiden (2011) also discussed the conditions that affect a bank's quality in terms of credit. These five C's are the tenets of lending activities, and are interrelated for the enhancement of value to shareholders.

Furthermore, Bessis (1998), Greuning and Bratanovic (2000), and Saunders and Allen (2002) emphasized the importance of the expertise of banks' credit specialists, their subjective judgment and the weighting of certain key factors in the decision to grant credit. The key factors usually considered in the credit evaluation process are known as the five Cs (Saunders & Allen, 2002). The credit officer analyses these five key factors, subjectively weights them, and then reaches a credit decision. The five Cs are: (1) character; (2) capital; (3) capacity; (4) collateral; and (5)

condition and this study same as Baiden (2011). To sum up, table 2.1 presents a brief explanation of each factor:-

Table 2.1: Explanation of the Five C Elements

Factors	Explanations
Character	A measure of the reputation of the borrower, its willingness to repay, and its repayment history.
Capital	The equity contribution of owners and its ration to debt.
Capacity	The ability to repay, which reflects the volatility of the borrower's earnings.
Collateral	In the event of default, a banker has claims on the collateral pledged by the borrower.
Condition	The state of business cycle; an important element in determining credit risk exposure, especially for cycle dependent industries.

Source: Saunders & Allen, 2002; Baiden, 2011

In addition, banks also use the CAMPARI (character, ability to pay, margin of finance, purpose, amount, repayment terms and insurance) elements for evaluating the credit for commercial loans (Pirok, 1994; Brown & Moles, 2012). To sum up, table 2.2 presents a brief explanation of each of the CAMPARI elements:

Table 2.2: Explanation of the CAMPARI Elements

Factors	Explanations
Character	A measure of the character of the clients, such as the personality to show a positive attitude.
Ability to pay	The ability of clients to afford the repayments.
Margin of finance	The means and resources to run the business and how the business is doing by the clients.
Purpose	A measure of the purpose of the clients for applying for a business loan.
Amount	Includes the amount that the clients need to borrow.
Repayment terms	Banks evaluate the repayment terms based on the ability of the clients to present the documentation that relates to profit margins, other key financial information and cash flow forecast.
Insurance	In the case of when a borrower dies, the loan can be protected by

insurance.

Source: Pirok, 1994; Brown & Moles, 2012

As in the credit evaluation process, bank lending principles remain centered upon financial risk management that may affect the present value of their loan portfolio. However, instead of using these tools in commercial loan approval in the real practices in banks, the study explores what is the current practice within both banks approach as to find out if there is any differences between both banks approach in credit evaluation process. Besides, instead of using these tools as an evaluation process, what and how Islamic elements can be used as a platform for Islamic banks approach since they have unique kind of contracts with different types of nature of risk.

2.5 Credit Risk Management in Banking System

Credit risk management is needed for any bank to succeed, as it must be managed coherently. This is because credit risk may have negative consequences on bank performance, which may lead to banks requiring extra funds to cover the financial losses. According to Boffey and Robson (1995), banks have limited capacity to absorb loan losses, which is the reason why banks need credit risk management to cover up financial losses; this is done by using income generated by bank capital. This is because before giving finance to customers, banks should have a concrete view about the characteristics of the borrower.

To have good credit risk management in line with the regulations, banks must have a good evaluation of their capacity, supervise, guarantees and know how to recover loans (Boffey and Robson, 1995). While reviewing the practices and policies

of credit risk management, banks first need to understand how to recover loans from their customers. Therefore, granted loans must be recovered within time. If not, collateral is needed to replace the loan. Strategic management has to be taken by banks to have sustainability in the financial industry, and, as credit-worthiness needs to be assessed, interim loan monitoring is still needed until the borrower has totally repaid the loan. Because of the uncertainty of future events, banks need to have this monitoring by using some mechanism to mitigate loss when there is any possibility of the borrower defaulting on payment.

2.6 The Empirical Study on Credit Risk Management in Conventional Banking System

Smith and Fischbacher (2009) viewed that one of the reasons for the economic collapse in the financial industry was because of the 'new' form of terrorism in risks, such as market risk, operational risk, interest rate risk and credit risk, as these have resulted in several challenges towards managing risks. The challenges included in the conventional approaches often trigger further hazards, which are sufficiently large in terms of the damage they can cause the banking business. In addition, the study viewed that in managing risks in the banking business, banks often ill-define the set of risks that need to be dealt with, which affects the banks, forces them to provide an evaluation of the likely effects of risks, and failure modes, and thus they require mediation by technical experts. By reviewing some of the literature, the study suggested that there is a need for banks to learn from these challenges by giving the organizations the skills to help them avoid the future probabilities of the occurrence of risks. In addition, the study opined that with the changing nature of risk and risk

management, the experts should broaden the engineering framework of the occurrence of risks to enhance the development of risk management to sustain in the financial industry.

To investigate the relationship between the management of risk, capital structure and lending in banking business, Cebenoyan and Strahan (2004) conducted a test on credit risk exposure in the active management of banks and how banks offering loan sales market can affect the capital structure and financing decisions. It was found that the external loan sales markets to manage the risk with aggressive use led to higher lending and lower capital ratios. Furthermore, the buying and selling of loan activities in banking business should take the opportunity to achieve a positive net-present value investment through sustaining business loans.

Vodová (2003) stated that a banking crisis is caused by the credit risk and inadequate risk management. By using banks' annual reports to analyze the credit risk, it showed that the major Czech banking sector results were more than 30 percent of the total credit to the share of nonperforming loans at the peak of the crisis. One of the reasons was that banks were challenged during high levels of interest rates, which affected the adverse selection problem. Therefore, although a fruitful solution was to suggest using guarantees and collateral as a way to reduce the problem, these led banks to increase the amount of unsecured loans.

Nor Hayati Ahmad & Mohamed Ariff (2007) investigated the credit risk determinants of emerging economy banks, such as India, Korea, Malaysia, Mexico and Thailand. Using the survey literature, it showed that the result was significant for regulatory capital in the multi products offered and that quality management in loan-dominant banks was critical. In addition, the result was not correlated in leverage to

credit risk and thus emerging economy banks showed higher credit risk than developed economy banks.

Richard et al. (2008) studied the credit risk management system of a commercial bank in Tanzania, as the aim was to investigate the current practices in the credit risk management system and thus establish a conceptual model. In an economy with a less developed financial sector, this model is to understand the credit risk management (CRM) system of commercial banks. By using the secondary data and reviewing some literature and the primary data of interviews with the experts in the area of study, it showed that there was a difference in how commercial banks operate in a less developed economy from those in a developed economy in the components of the CRM system. To be sustainable in the CRM system in commercial banks, the environment within banks is an important consideration.

Imbierowicz and Rauch (2014) examined the credit risk and liquidity risk of commercial banks in the United States (US) in which these two sources of bank default risk have an impact on the bank's performance. The findings of the study showed that the relationship between credit risk and liquidity risk influence the probabilities of default (PD) and that there are no time-lagged relationships between these categories of risk.

Dell'Ariocia and Marquez (2006) examined the determination of lending standards and the aggregate allocation of credit and lending volume regarding the strategic behavior of banking system by examining the informational structure of loan markets. Therefore, the study was represented by the use of collateral requirements. With the purpose being to mitigate the credit risk, they proposed a model to reduce the hazards in adverse selection as the hazards result from informational asymmetries

among the banks and become less severe, thereby reducing the lending standards of the banks when the proportion of unknown projects in the economy increases. By using quantitative analysis, the authors predicted a negative relationship between new loan demand and lending standards. In addition, when interest rates remain high in banking business, there is a decrease in the value of loan collateralization. On top of that, the authors predicted that financial distress is likely in the aftermath of periods of strong credit expansion. They found that good credit risk management could improve the banks' lending standards and enhance the average credit quality and creditworthiness of banks. In addition, banks play an important role in the determination of a good information structure of loan markets.

Furthermore, Agarwal and Hauswald (2010) conducted a study of distance and private information in lending by using a loan application dataset of small firms to large banks. It was found that the closer a firm was to its branch office, the more interest charges, *ceteris paribus*, and thus the more likely the bank was to offer credit. Therefore, it is important for banks to create information asymmetry in industry because borrowers are more likely to choose firms that are located close to the bank, which gives banks the opportunity to price their loans.

Gavalas and Syriopoulos (2014) conducted a study on credit risk management in the banking system in which the measurement of credit risk is a critical field, especially in the banking industry, as it was impacted by the recent global financial crisis. The purpose of the study was to investigate the empirical review on the credit risk transition pattern in banking business. By applying the bank's internal rating data, the entire loan portfolio and internal rating system of a major Australian bank as a dataset for the study, it was found that it was critical to align to the Basel guidelines

for banks in relation to core risk-weighted assets and capital requirements in the underlying loan portfolio.

Wiersch and Shane (2013) viewed that the reasons for small business lending were not what they used to be because of the demand size problem, the less creditworthiness of small business lending than used to be, and the force of the standard quality of lending. These reasons caused concern to policymakers in terms of the issues that have arisen in bank lending to small businesses since the financial crisis. It was suggested that policymakers take such issues into account to help small businesses to compete in the market and reduce the determinants affecting small business credit, and propose strategies to increase competition in the activity between big businesses and small businesses, and thus move towards more profitability for the banks that provide the business loans.

Soares et al. (2011) conducted a study concerning the difference between the quantitative and qualitative criteria for credit risk assessment to examine the criteria used as well as the qualitative information given. The researchers carried out a survey of loan officers from different banks in Portugal to reveal the results of a survey using the Delphi methodology for approaching the panel of experts. By adopting the business credit applications as the base of the analysis, it was found that three (3) areas – the market environment, the management's experience and also the financial performance – are included in the wide range of criteria of the banks in their analysis. The qualitative nature (management criteria) results in high numbers of these three (3) criteria rather than the quantitative nature (financial ratios). In addition, the best banks (in terms of overdue credit) result in higher relative valuation of qualitative criteria. These qualitative criteria impact the credit analysis as it depends on the subjective

assessment. Within this context, the study reflected on the role of multi-criteria decision analysis (MCDA) models as a way to process credit risk assessment integrating the qualitative and quantitative aspects.

In terms of the risks and interest rate charges, Yong et al. (2009) viewed that banks are exposed to exchange rate and interest rate risks. This study aimed to establish a more sophisticated strategy to the issue of the risks in the exchange rate and interest rate of ten (10) selected Asia-Pacific regions by using the secondary data of selected samples. It was found that with long horizon returns the interest rate and exchange rate exposure were strongly significant. Besides, it was found that with long horizon return there was strong evidence in interest rate risk management. Based on the findings of the study, in general, the bank's activities and performance affect the risks in banks, as it shows that there is significant value in credit quality, lending structure and expansion in credit, cost of funds, gap analysis, capital buffer, liquidity ratio and the size of the banks.

Papanikolaou (2010) constructed a model of spatial banking competition to examine the market structure to determine whether it affected the lending activities and screening. The results showed that the lending cost should be minimized to have a lean market structure. In addition, there is positive effect from screening the credit applicants and the mechanism against credit risk is higher. To be protected from bad applicants, banks invest more in screening technology, which entails higher credit risk by dealing with a larger number of loan applicants. Therefore, the competition in market, bank lending activity, and the investment of banks in screening supports the rather close link among them.

Berrios (2013) examined the relationship between credit risk and financial performance in terms of bank profitability and liquidity. By using the Mergent online database, it was shown that there was a negative relationship between less prudent lending and the net interest margin. Therefore, the results from this study indicated the need for more research on the relationship of these results and financial crises.

Mohamad Yazis Ali Basah and Mazlynda Md. Yusuf (2012) conducted a quantitative study on the credit evaluation perspective in the Malaysian banking system. By examining the credit evaluation in terms of natural environmental risk issues that arise in the banking industry, it was found that there was a significant relationship between managers of the banks and racial groups, the different types of banking system, religious affiliations and the nationality of the banks in making the credit evaluation. Thus, the religious affiliation and cultural value has an impact on the banks in making the credit evaluation process and with the different perspectives in credit evaluation, it can be used as a measure of the practices in natural environmental risk management.

Ntow-Gyamfi and Boateng (2013) viewed that the occurrence of credit risk comes from the nature of the activity of the bank conducting interest earning business. The study took selected Ghanaian banks as the sample of the study as they examined the default and risk in credit, and how banks manage the occurrence of the risk. It was found that most of the banks applied the credit risk management procedures in managing the loan portfolio, but that banks took action concerning customers in demanding the suitability of the loan (credit) for the customers in the process of evaluation of the credit application. Banks also used the CAMPARI model in credit evaluation as a substitute for the other five C elements of credit. In addition, the study

suggested developing an advanced strategy to establish the bureau of vibrant credit-referencing to enhance the customer relationship for the banking business by providing the customer's credit history.

Suleiman and Sharif (2013) conducted a study on the credit risk used by commercial banks in Palestine. In the stage of evaluation, they used the five C's of credit, LAPP, 5P's, FAPE and the CAMPARI model. This study was done by using the survey method (quantitative analysis) to determine whether each bank used these methods in evaluating their customers, and tested by applying the average percentages and ANOVA tests. It was found that banks mostly used all of these methods in the evaluation process of credit in the Palestinian banking system and that they concentrated more on credit record and collateral. Thus, the study developed a new model called PACT (Person, Activity, Collateral and Terms) to evaluate the credit, plus the use of existing methods in the credit evaluation for commercial banks.

Dankwa I.O. et al. (2013) used questionnaires (surveys) to examine the principles and practice of lending in the banking sector of some selected banks in Ghana. By using descriptive statistics, the study found that banks commonly used the CAMPARI model in the evaluation process of credit applications. Banks also followed and ensured that the laid down principles and practices of lending in granting loans were enforced, thus helping to increase profitability and thereby reducing the extent of default.

Hillairet and Jiao (2012) studied credit risk and asymmetric information and their impact on the firms; the study used different types of customer with different types of level in terms of the information on default. It was shown that those who have extra information provide good estimations of the probability of default.

Furthermore, Lindset et al. (2014) discussed the credit risk and asymmetric information, and thus presented a simplified model for credit risk and corporate debt. There was incomplete information about the financial state of the debt issuing company towards the debt holders and equity holders. The reason being the delay for all agents, and that it was asymmetrically distributed among them. It was shown that the major impact on credit spreads was asymmetric information, and the authors assumed high credit spreads for short-term debt.

Ho and Nurul Izza Yusoff (2009) conducted a study on the credit risk management strategies of selected financial institutions in Malaysia by identifying the strategies based on the type of risk management and monitoring practices, and, thus, further criteria can be suggested to mitigate bank risks. The authors used quantitative analysis by collecting the sample consisted of fifteen (15) selected financial institutions in Malaysia. It was found that the training and development of staff, the diversification of loan services and risk mitigation were the most popular practices, as these showed a significant contribution in the area of finance, which was related to the credit risk management strategies in the study, which was one of the first to adopt the use of primary data.

Ono and Uesugi (2006) conducted a study on the role of collateral and personal guarantees in relationship lending and discussed the relationship between them by using a sample dataset of Japan's small business loan market. Collateral or guarantees are mostly used by banks in lending activities with a long-term relationship between borrowers and banks. Furthermore, with the different types of borrower, banks know the riskiness of their investment projects. However, personal guarantees

and collateral are still needed under asymmetric information in solving the different problems that may arise.

To sum up the above on the empirical studies, most of the previous studies reviewed the quantitative analysis and the scope of their study was on the credit risk management after the loan approval. Based on the country-based study, there are few studies on the credit risk management in the Malaysian Banking System for the dual banking system. Despite the efforts by the conventional banking system, there are still challenges for the conventional banking system. Therefore, this study is conducted to fill the gap to investigate the role in credit risk evaluation/assessment for commercial (business) loan approval in the conventional banking and Islamic banking systems in Malaysia when carrying out financing decisions, as this study can help improve the current practices of credit risk management in the evaluation stage of commercial loan approval.

2.7 Chapter Summary

This Chapter discussed the literature related to credit risk management in the conventional banking system; the theme discussed was the concept of risk in general and the management of risk. These have helped provide an understanding concerning the theory and concept of risk management as well as credit risk management in general. In addition, the study also presented the significant value of credit risk management in the evaluation stage (pre-approval) of credit application, which includes the value/return, bank performance, asymmetric information, and the elements of credit. Thus, these significant values discussed also have a tight relationship to credit risk in the evaluation stage. Moreover, this chapter discussed the

credit risk management in the banking system and the study ended up with the empirical study on credit risk management in the conventional banking system. The results from the empirical study have identified the gaps in the existing literature study and provide a standpoint to achieve the objectives of the study.

