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EVALUATION OF CREDIT RISK MANAGEMENT POLICIES AND PRACTICES IN A VIETNAMESE JOINT-STOCK COMMERCIAL BANK'S TRANSACTION OFFICE

Business Economics and Tourism

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FOREWORD

At this moment, the financial sector still attracts a lot of controversy both at the regulator and the banker level. The regulators have been discussing on tighter banking rules. At the same time, the banks have also been strengthening their own health with stricter supervision, one of which is to reinforce credit risk management practices. I have long wanted to conduct a real research in finance, the field in which I am really interested and want to pursue my future career. This is a great opportunity for me to realize that wish. Beyond that it provides me with excellent knowledge of risks in the lending industry, operations of a bank, and particularly its credit risk management. Thanks to this research, my future direction moves closer to the special field of financial risk management. And I hope that this thesis will be of great help to the bank when it comes to procedure review and improvement.

I would like to send a thousand thanks to my cousin, Ms. Tran Thu Thuy, who is working at the investigated bank. She recommended the research idea to me and helped me a great deal in collecting secondary data for the research. But the thesis would never be complete without the enthusiasm and kindness of 3 credit officers at the transaction office. I wish to give my deepest gratitude to Ms. Rosmeriany Nahan-Suomela, my supervisor, for her great support, constructive feedback and thorough understanding to keep me diligent and speed up my progress on the work. I also thank Ms. Satu Lautamäki and Ms. Camilla Harald for their valuable contribution in improving the final written version of this thesis. And finally, I am very grateful of my family and my friends for their mental encouragement and practical suggestions during the research process. Thank all of you for making this thesis a reality!

Vaasa, November 10, 2010.

Dam, Dan Luy.

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ABSTRACT

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Concerns about distressing credit activities and vulnerable credit risk management system have been climbing these years, from the United States' troubled mortgage lending (2008) to the European debt crisis (2010). In the little country Vietnam, small banks are also facing the big question of establishing a strong credit risk management framework in order to maximize their profits and to gain competitive advantage over their rivalries. This is where the research problem for this thesis arises.

The biggest objective of this research is to provide the investigated bank with an insight into its credit risk management framework and the effectiveness of the credit risk management practices at both the bank's and a transaction office's level. In addition, the readers will also get familiar with the risks inherent in banking business, realize the importance of credit risk management in banks, and understand the facts about the Vietnamese credit conditions. Four research questions will step by step guide the audience on how these objectives are achieved.

In order to give out an evaluation of credit risk management practices, this thesis has tried to build a list of assessment criteria deriving from the literature that has been revised during the study. The criteria are grouped into four categories: credit culture, credit policies, credit organization & personnel and credit practices & performance. The research was mainly done at a small transaction office of the bank with three credit staffs (two relationship managers and one credit assessment officer). Both qualitative and quantitative research methods were employed. An in-depth interview with two in three staffs and a questionnaire to all three were conducted. Moreover, the State Bank of Vietnam's regulations, the bank's internal policies and annual reports as well as the transaction office's business results also provide significant findings for the research.

The analysis of both primary and secondary data shows that this bank has been trying to adopt a close-to-standard credit risk management framework with numerous published documents governing the day-to-day credit activities. Some good points are a complete lending procedure or a standard internal credit rating system – SYMBOLS. However when it comes to actual operation, some aspects should be considered, e.g. the staff training quality or the priority treatment to high-value customers. Especially, the high non-performing loans at the transaction office and the non-complied loss provision must be reviewed and adjusted. These discoveries have led to several constructive improvement suggestions for the case bank. Besides, recommendations for new research directions have also been made.

Key words Risk, Banking Risks, Credit Risk, Credit Risk Management

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ABSTRAKT

Författare:	Dam, Dan Luy
Titel:	Utvärdering av kreditriskhanteringspolicy och utövning i en banks transaktionskontor i ett kommersiellt vietnamesiskt aktiebolag
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Oro över kredit aktiviteter och sårbara kreditriskhanteringssystem har ökat de senaste åren, från Förenta staternas problem med belåning (2008) till Europeiska skuldkrisen (2010). I det lilla landet Vietnam, står små banker också inför den stora frågan om inrättande av en stark kreditriskhanteringsstruktur för att maximera sina vinster och vinna konkurrensfördelar gentemot sina konkurrenter. Det är där forskningsproblemet för denna avhandling uppstår.

Det främsta syftet med denna forskning är att förse den undersökta banken med en inblick i kreditriskhanteringsstrukturen och effektiviteten av kreditriskhanteringsutövningen, både i banken och på en transaktionskontors nivå. Dessutom kommer läsarna att få bekanta sig med de inneboende riskerna i bankverksamheten samt inse vikten av kreditriskhantering i bankerna.

För att kunna ge en utvärdering av kreditriskhanteringsutövningen har detta lärdomspra byggt upp en lista med bedömningskriterier som härrör från den litteratur som har använts under studien. Kriterierna är uppdelade i fyra kategorier: kredit kultur, kreditpolicy, kreditpersonal och kreditutövning och prestanda. Forskningen gjordes huvudsakligen vid ett litet transaktions kontor i banken tillsammans med tre kreditanställda (två relationsföreståndare och ett kreditbedömningsdirektör). Både kvalitativa och kvantitativa forskningsmetoder användes. En fördjupad intervju med två anställda och en enkät till alla tre anställda genomfördes. Dessutom, the State Bank of Vietnams föreskrifter, bankens interna policy, årsredovisning samt transaktionskontors resultat är betydelsefull information för forskningen.

Analysen av både primära och sekundära uppgifter visar att denna bank har försökt att anta en nära till standard kreditriskhanteringsstruktur baserat på ett stort antal internt publicerade dokument som reglerar dagliga kreditaktiviteter. Några bra åtgärder är ett komplett utlåningsförfarande eller ett internt standard kreditrankingsystem - SYMBOLS. När det kommer till själva utförandet finns det dock vissa förbättringar som borde tänkas över, t.ex. kvaliteten på utbildning av personalen och prioritetsbehandling av högt värderade kunder. Speciellt de höga oreglerade lånen vid transaktionskontoret och de icke-uppfyllda kapitalreserverna måste ses över och justeras.

Ämnesord Risk, Bankrisker, Kreditrisk, Kreditriskhantering

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1. INTRODUCTION

In this beginning chapter, the readers will understand the reasons behind the choice of this research problem in the background of the study. A brief explanation of the objectives of the study as well as research questions will immediately follow. After that, an overview of the research methodology and the structure of this thesis will be discussed and conclude the chapter.

1.1. Background of the Study

The global economic depression that knocked almost all big economies throughout the world down in the past 2 years is still kept in many people's minds. It was triggered by the United States financial sector. One key reason for the collapse or nearly-collapse of the financial institutions is the badly-functioned subprime mortgage lending to companies/people with bad and unreliable credit. When the prices of houses used as securities for the loans slumped, those loans became non-performing loans or bad debts. (OECD 2008 and The Renegade Economist 2009)

As soon as the world begins to see the signs of a recovery period, the financial sector, this time in the Euro-zone, suffers another great distress at the serious debt crisis in Greece that poses risk to the European Central Bank (ECB) and many other institutions in the industry. A number of European banks have made investments in Greek government bonds and other securities and use them as collaterals to obtain loans from ECB. And now when Greece defaults, the collateral subsequently loses its value and the ECB's balance sheet is put at risk as it fails to recollect the loans. Greek banks are not the only ones in danger. French and German banking business are on the same boat with respectively $80 billion and $45 billion exposure to the troubled country. Recently, the Basel Committee on Bank Supervision demands a jump in both tier 1 and tier 2 capital levels as a response to the crises these days. (Wall Street Journal 2010)

These incidents raise a question for all financial institutions in general and banks in particular: ***What could they have done in order to prevent or at least lessen the bad impact of this happening?***

It urges the significance of a sound credit risk management in lending organizations. Credit risk is a popular type of risk that both non-financial and financial institutions must deal with. Credit risk occurs when a debtor/borrower fails to fulfill his obligations to pay back the loans to the principal/lender. In banking business, it happens when "payments can either be delayed or not made at all, which can cause cash flow problems and affect a bank's liquidity" (Greuning & Bratanovic 2009, 161). Hence, credit risk management in a bank basically involves its practices to "manage", or in other words, to minimize the risk exposure and occurrence. For a commercial bank, lending activities form a critical part of its products and services. According to Greuning & Bratanovic (2009), "more than 70% of a bank's balance sheet generally relates to this aspect of risk management". Therefore, credit risk management is crucial to any bank's success.

In a small country like Vietnam, the financial sector is still in the development phase and many small commercial banks have not been able to establish a firm risk management framework, particularly credit risk management, in order to prevent unfavorable events. This is dangerous when Vietnamese banks' customer services are still in their infancy and banks' revenue depends heavily on lending activities and credit growth is central to any banking organizations' profit (Infotv, 2010). In addition, the control work from the central bank, though playing a growing role, has not been protective enough. Access to credit information and history is very limited. Some years ago, unofficial news arose that a small bank was going to file for bankruptcy due to bad credit assessment practices brought a big loss to the bank. "Smoke cannot be released without a fire". There must have been something wrong in that bank's credit procedures.

This is where concern about this research topic began. Instead of analyzing foreign-owned banks that have quite comprehensive risk management framework built buy their parents or Vietnamese-owned big banks who receive large support from the government and the central bank, the researcher is far more worried about the practices in small joint-stock commercial banks (JSCBs) which are always under competitive and profit pressure in an unfair banking market. Sales

and profit targets make them at times ignore what should be carefully done and this poses an extreme risk to the bank's overall performance. As addressed by Ardrey, Perryer, Keane & Stockport (2009, 11), "Incumbency in financial services is a significant barrier to entry for small players, and nowhere is this barrier higher than the state dominated banking systems of Southeast Asia." But the authors believe that the JSCBs can compete against their big state-owned rivalries by "understanding and embracing sound risk management policies" and credit risk management procedures lie at the core. The point is they are not strong yet in this area despite the fact that JSCBs are actively joining hands with the central bank to improve their management of major risks. After a thorough research into a great number of JSCBs, the article "Prudential Supervision, Banking and Economic Progress: Implementation of Risk Management Procedures in Joint Stock Banks in Vietnam" (Ardrey, Perryer, Keane & Stockport 2009) points out several facts of the JSCBs' credit risk management framework, such as:

- limited experience in modern banking techniques, products, and risk management models
- lack of accurate, reliable and complete data for decision making
- little capital is spent to cushion or protect banks against risks due to small profit
- "poorly developed accounting, reporting and bank supervision guidelines to deliver timely and useful information on the performance of JSCB's"
- non-transparent legal and regulatory environment, e.g. legal security over assets, recovery of bad debts, and profitable banking activities.
- challenging economic and natural environment (unstable conditions, disasters, etc.)

This article's results left the researcher with several questions in mind because from her own observations, the JSCBs are doing quite well in the market by attracting a lot of deposits as well as generating many loans. She was strongly stimulated to discover more about the real practices in a Vietnamese bank and subsequently, make comparisons with the presented ideas. Therefore, this paper wants to put a focus on describing a Vietnamese small joint-stock commercial

bank's credit risk management procedures and evaluating their effects in helping the bank succeed.

1.2. Research Objectives

The ultimate objective of this thesis is to help the case study bank possess a reflection on its own credit risk management framework and its effectiveness at a single transaction office.

The second objective of this paper is to familiarize the audience with common risks that a commercial bank is exposed to in its business. This thesis also explains to the readers the significance of credit risk management in banking business. Last but not least, the readers will possess some insight into the current situation of the Vietnamese credit market.

1.3. Research Questions

In order to further understand how the objectives of this study will be achieved, four following research questions are introduced:

1. What are the types of banking risks and the position of credit risk among them?
2. What are the difficulties in credit risk management that arise from the Vietnamese credit market?
3. How is the subject bank coping with credit risk?
4. How effective are credit risk management practices in the bank and particularly in the investigated transaction office?

1.4. Methodology

Research methodology is a philosophical framework for any research (White 2003, 20). It contains the data used and the research data collection techniques. For this thesis, both primary and secondary data are used. Secondary data are collected from the literature (books, journals, previous research papers, electronic sites, etc.), the State Bank of Vietnam's regulation database, the subject bank's annual reports and published internal policies as well as the transaction office's

annual business results. Primary data are gathered by the researcher through both qualitative and quantitative methods. An in-depth interview was conducted with two of three credit staffs in the transaction office to gain insight into the office's daily credit operations. A questionnaire was also designed and handed to all three persons to find out more about the staffs' characteristics and practices.

1.5. Structure of the Study

This part will guide the readers on the systematic organization of this research study (Figure 1). Every parts and sub-parts of this thesis circles around and supports one single central theme. The central theme of the thesis lies in credit risk management and evaluation of credit risk management practices. This central theme is primarily supported by the theoretical framework and the empirical study. But before the theories appear, this whole first chapter is dedicated to background information on the research problem, the motivations behind it, the study objectives and research methodology. Chapter 2 follows with an emphasis on the theories supporting this thesis, including risks and banking risks, risk management, risk management in bank and certainly two key points of the central theme. Once the theories have been identified, it is important that the research methodology is selected. The 3rd chapter will deal with the data and the research methods employed in the study. The methodology is built with an aim to serve the main section: empirical study in chapter 4. This chapter takes up to more than half of the thesis and gives the audience answers to four research questions mentioned in 1.3 at a practical level of a Vietnamese commercial bank and its transaction office. It contains the research findings of the Vietnamese credit conditions, the credit risk management practices and a very important analysis of the findings. Finally, the implications for the bank and recommendations for further studies (reflect from the theoretical and empirical part) will conclude the thesis in the fifth chapter. The bold arrows in the figure below show the supportive relationships of the chapters to the central theme. The thin arrows indicate the inter-relationships among the chapters' constituents.

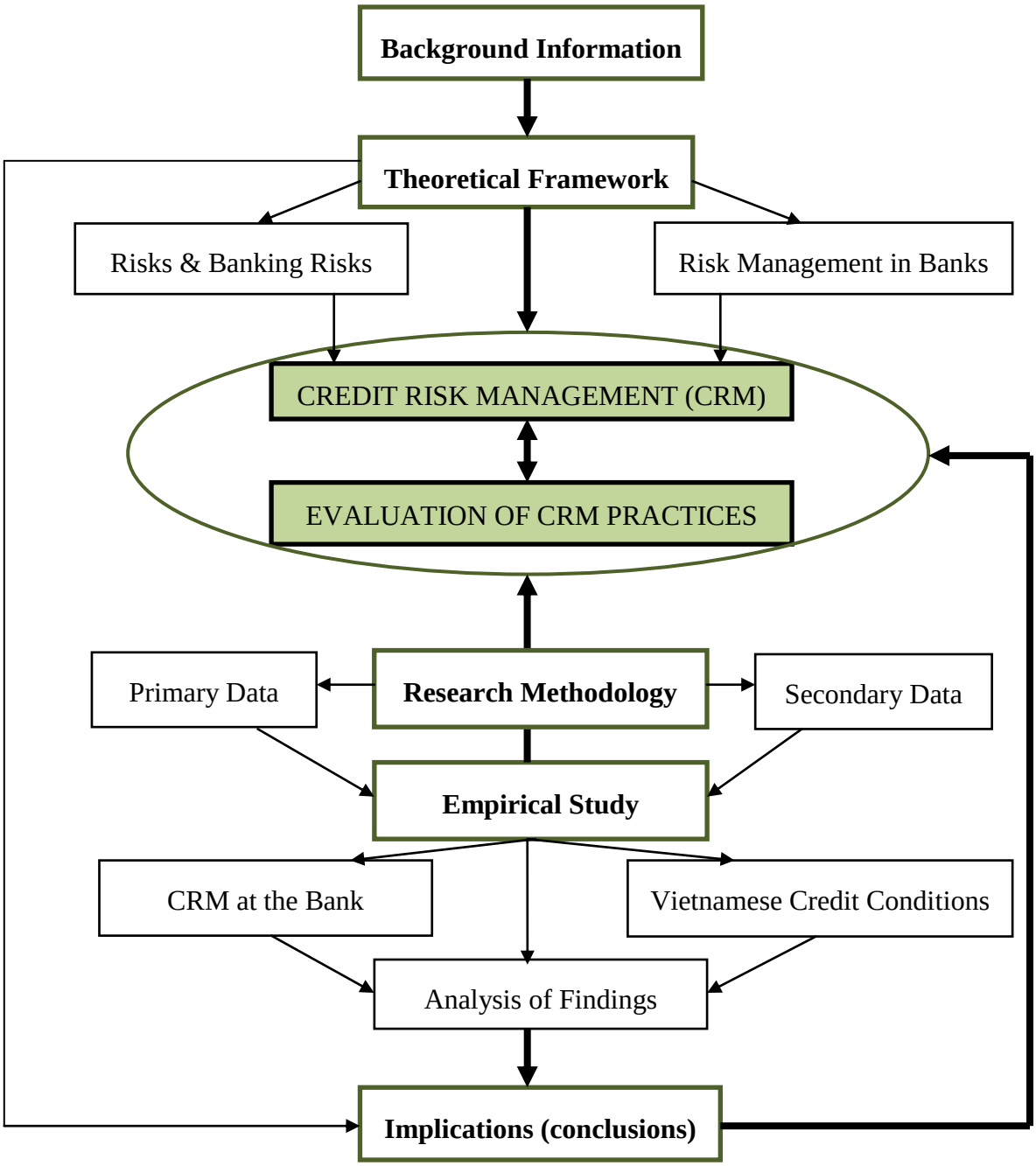

Figure 1. Structure of the Study

2. THEORETICAL FRAMEWORK

This section is going to cover definitions of several key words that will certainly be repeated many times throughout this paper. First the readers will have a chance to get themselves familiar with risk concept and different kinds of banking risks. Some details of risk management and especially banking risk management will be introduced in part 2.2. After that, the text will focus on credit risk management and the evaluation criteria for an effective credit risk management framework.

2.1. Risk and Banking Risks

This part plays a role as the foundation that supports the main theories of credit risk management. The readers must first acquire some knowledge of risk and banking risks in general so that they understand the position of credit risk among the banking risks and hence, see the significance of good credit risk management.

2.1.1. Risk in general

Risks in banking business, risks in trading activities, risks in our normal life or whatever kind of risks are what potentially happen sometime in the future and will have unexpected impacts on risk recipients.

Risk actually has been defined in multiple ways but there are two distinguishable styles of explanation. It is not difficult to realize the difference between the two columns of table 1. While the concepts in the left column consider risk negatively, the definitions on the opposite site provide us two-sided perceptions of risk which are indeed more relevant in practice. The dictionary people are traditionally cruel towards risk when they see that risk is always bad. In fact risk should be viewed in a more open way.

A simple example from normal life can explain for the appropriateness of the right column. A lady decides to rent her house to a florist. The 2 negotiates on the rent term and price and finalizes that the florist can make the house her flower shop in 1 year for the price of 1500EUR/month. The rent period start 1 month after the contract is signed. For this contract, both the lady and the florist are taking risk. If in 1 month, suddenly supply in the renting market is scarce and

price goes up dramatically, the lady loses and the florist gains. Risk becomes opportunity for benefits for the florist.

Table 1. Definition of 'Risk' (Adapted from the literature mentioned in Table 1)

Let us start with the traditional Oxford Advanced Learner's Dictionary "The possibility of something bad happening at some time in the future; a situation that could be dangerous or have a bad result". (Hornby 2005, 1313) Another dictionary identifies risk as "Probability or threat of a damage, injury, liability, loss, or other negative occurrence, caused by external or internal vulnerabilities, and which may be neutralized through pre-mediated action. Particularly in finance risk means the probability that an actual return on an investment will be lower than the expected return." (Business Dictionary 2010) Risk means potential danger, insecurity, threat or harm of a future event.	'Risk can be defined as the combination of the probability of an event and its consequences…there is the potential for events and consequences that constitute opportunities for benefit (upside) or threats to success (downside)' ('A risk management standard', IRM/AIRMIC/ALARM, 2002 www.airmic.com/AIRMIC_RiskManagementStandard.pdf); '… "Risk" is defined as something happening that may have an impact on the achievement of objectives … It includes risk as an opportunity as well as a threat' ('Supporting innovation: managing risk in government departments', National Audit Office, 2000); 'Risk' can be used to describe the uncertainty surrounding events and their outcomes, which either enhancing or inhibiting: - operational performance; - achievement of aims and objectives; or - meeting expectations of stakeholders (*Charities and Risk Management*, Charity Commission for England and Wales). (Spedding & Rose 2008, 10-11)

To sum up, *Risks* must be understood as possible unpredicted incidents that occur in the future that either brings benefits or threats to their recipients. A balance

between the gains and losses is essential and risk management will take care of that balance. More information can be found in the later parts of this thesis.

2.1.2. Banking Risks

The banking business, compared to other types of business, is substantially exposed to risks, especially in this ever-changing competitive environment. Banks no longer simply receive deposits and make loans. Instead, they are operating in a rapidly innovative industry with a lot of profit pressure that urges them to create more and more value-added services to offer to and better satisfy the customers. Risks are much more complex now since one single activity can involve several risks. Risks are inside risks. Risks overlap risks. Risks contain risks.

Scholars and analysts in recent decades have been trying to group banking risks into categories. The Basel Accords issued by the Basel Committee on Bank Supervision mention three broadest risk types in the first pillar: credit, market and operational risks. Then the second pillar deals with all other risks. Mr. Anthony M. Santomero of the Wharton Financial Institutions Center, The Wharton School, University of Pennsylvania divides risks into six generic kinds: *systematic* or *market risk (interest rate risk), credit risk, counterparty risk, liquidity risk, operational risk,* and *legal risks*. This categorization is based on types of services offered by banks. (The Wharton Financial Institutions Center 1997, 11) But the risks seem to be insufficient and some overlapping can be found. Counterparty risk and credit risk are quite alike or the list lacks country risks, for example.

Another classification that is quite comprehensive though not particularly aims at banks only is introduced in “The Essentials of Risk Management” (2006) by Michel Crouhy, Dan Galai and Robert Mark.

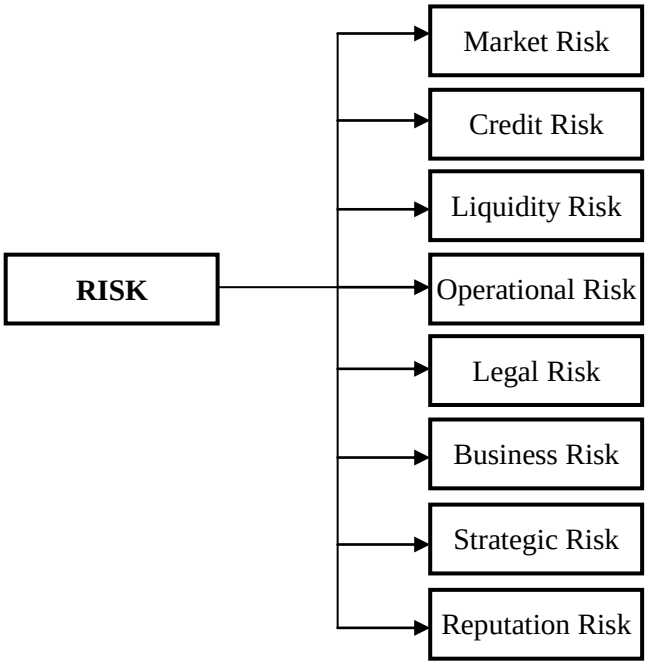

Figure 2. Typology of Risks (Crouhy, Galai & Mark 2006, 26).

Among the literature that has been worked through, I would much prefer the way Greuning & Bratanovic break risks faced by the banking business into three groups: financial, operational and environmental risks.

Financial risks, as their name indicate, are risks related to a bank's financial position (the first three risks under financial risks in Table 2) or any form of financing (the other five risks in the financial risks column). Greuning & Bratanovic separate market risk from interest rate and currency risk but it would be more relevant if market risk covers the latter two because interest rate and currency exchange are important elements of the financial market.

Operational risks are risks associated with "in adequate systems, management failure, faulty controls, fraud and human errors" (Crouhy, et al. 2006, 30). Operational risks are attracting growing attention in the financial sector. We should not forget Société Générale's huge loss of USD7.2 billion by unauthorized trading activity conducted by the bank's employee in the futures market in 2008. This is an example of dangerous frauds that the bank failed to control. The incident not only brought a loss to Société Générale but also downgrade the bank's long-term debt ratings.

Table 2. Different Types of Banking Risks (Greuning & Bratanovic 2009, 3-4)

Financial Risks	Operational Risks	Environmental Risks
Balance sheet structure	Internal fraud	Country and political risks
Earnings and income statement structure	External fraud	Macroeconomic policy
Capital adequacy	Employment practices and workplace safety	Financial infrastructure
Credit	Clients, products, and business services	Legal infrastructure
Liquidity	Damage to physical assets	Banking crisis and contagion
Market	Business disruption and system failures (technology risks)	
Interest rate	Execution, delivery, and process management	
Currency		

While financial and operation risks can occur due to the organization's subjective reasons, environmental risks mainly deal with objective factors in the bank's business environment that somehow are out of its control. For instance, a bank enters an agreement to endorse a Letter of Credit in the transaction between A (seller) and B (buyer). After 30 days, the bank already pays A the money and waits for B to repay the amount. Suddenly the buyer's government prohibits overseas transfer of foreign currency and B couldn't make the payment. The bank loses. This is totally unpredictable and uncontrollable.

2.2. Risk and Banking Risk Management

Understanding risk alone is not sufficient to gain full insight of credit risk management because risk management concepts are missing. This section will fill in the gap by identifying risk management in general and in banking to best prepare the readers for the next important parts.

2.2.1. Risk management

As mentioned above, ‘risk is always bad’ is a false assumption and can mislead the way people deal with risks. Eliminating each and every risk definitely is not the way because risk is an unavoidable element of life. Moreover there is a special relationship between risk and reward. If you want a higher rate of return, be willing to take risks and be tolerant of risks is a must.

“The greater the risk, the greater the gain.” (Spanish Proverb).

“He who doesn’t risk never gets to drink champagne.” (Russian Proverb)

(Book Rags 2010)

The point is people know how to cope with, or in other words how to control risks properly, responsibly, and in a business context, profitably, beneficially and sustainably. That is the question risk management must answer. Ordinary people also manage risks in different ways. Nevertheless, risk management in organizations is more concerned. Like risk, risk management has been attempted to define in various ways. It may take pages to list all the definitions from the literature. But there is one definition from the International Organization for Standardization (ISO) that is typical and covers most of general issues: “Risk management is a **central part of any organization’s strategic management.** It is **the process** whereby organizations methodically address the risks attaching to their activities with **the goal of achieving sustained benefit** within each activity and across the portfolio of all activities.” (IRM, 2002: 4)

The three key phrases in the sentences above are in bold. First, risk management’s primary mission is to bring benefits to the companies and makes them sustainable. Second, risk management is at the heart of any firm’s strategy. The significance of risk management in an organization’s activities was surprisingly ignored for a long time. It used to be regarded as no more than insurance. It only started to catch attention from business top executives in the 1990s after the enormous derivatives disasters triggered in the United States that shook Barings Bank, Procter & Gamble, Gibson Greetings, government of Orange County - California, BankAmerica Corp. and many other giants with loss of billions of dollars. (Culp,

2001: ix; Markham, 2002: 198-201). Third, risk management is an ongoing and continuously developing process.

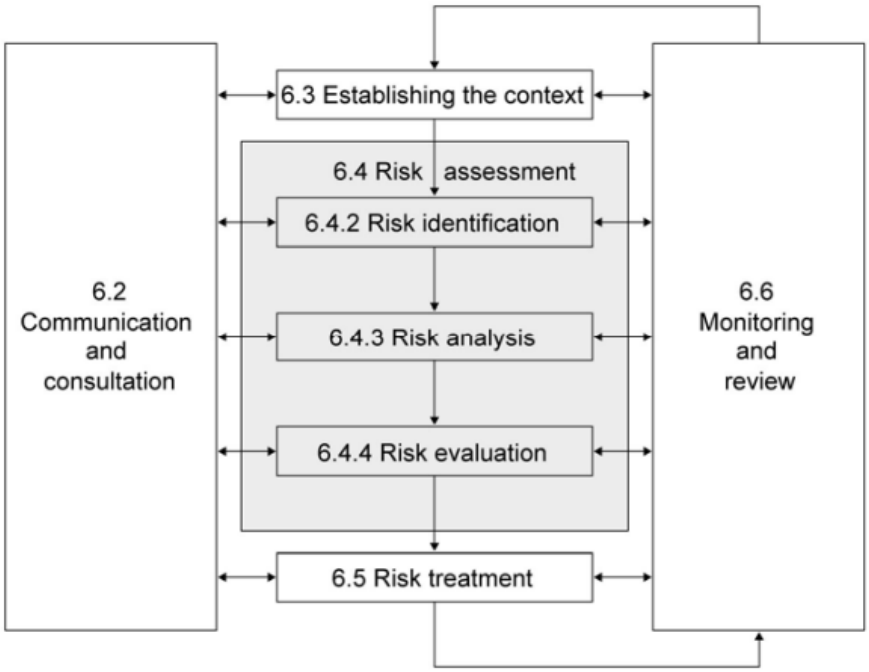

Figure 3. Risk Management Process (International Standards Organization 2008)

Another significant note is that risks must be put in the relevant contexts whenever analyzed and controlled.

Table 3. Business Contexts (Adapted from Tanhua, 2009)

Inner Contexts	**Outer Contexts**
• organizational structure • resources • culture • power relations • risk cognitions • strategy • motivations and meanings of success	• economies and markets • public policy, regulation and standards • social, historical and political climate • physical conditions and climate • technology

It means risk management strategy is standardized only to some extend because firms operate in varied inner and outer contexts. For instance, a German business entry in Vietnam will be completely different to that in Finland due to

dissimilarities in the markets, cultures, economic development, human resources, etc. Risk management contexts must take the '*time*' element into consideration also. Several years ago, a Vietnamese firm might export its products to Greece without any substantial risk fears. The story is totally different now when Greece defaults and this has been badly affecting Greek banks as well as businesses.

To conclude, risk management has been increasingly concerned by any kind of firms and considered critical to their overall management strategy and organization culture. It is actually a continuous sequence and should be reviewed and improved all the time.

2.2.2. Risk Management in Banking Firms

Banking risks have already been introduced to the audience earlier. Banks share similarities with other types of corporations but still possess distinct features and certainly their risk management techniques are not the same. As a matter of fact, banks form a crucial part of the financial market and any moves by banks can have immediate impacts on the country's or even the global financial healthiness. The world has been observing a lot of crises stemmed from banking institutions then spread to the whole financial sector, typically of which is the 2008 economic downturn. The issue of a safe and sound banking sector and the importance of a feasible risk management framework in banks are now more alarming than ever.

Undeniably banking risk management in the modern business world takes place in such a great scale and unexpected manner. On the one hand, the creation and development of a number of risk instruments allow higher risk diversification, better prediction and more effective solutions to the potential dangers in the global financial market. On the other hand, growing interactions among financial institutions in the world make room for a possible sequential effect if something goes wrong. The consequences might be "far beyond the doors of the banks and investors themselves". (Utrecht University 2010)

In spite of the risky world they operate in, banks are truly risk machines in the economies. "They take risks, they transform them, and they embed them in banking products and services". The first and foremost aim is to increase revenues for the bank thanks to the relationship between risk and return mentioned earlier.

Second, competitive advantage might be a powerful motive for banks to take risks. (Arora & Agarwal 2009, 1). For example, a commercial bank trades oil with an airline corporation in form of forward contracts. This is one type of derivatives offered by the bank that is extremely risky. Yet they can gain, either a little or a lot, if their estimation is on the right track. Risk management in a bank is "a set of policies to manage and monitor transactions and activities which can adversely impact banking operations, and enact proactive measures to identify, control and minimize these risks". (Ardrey, Perryer, Keane & Stockport 2009, 2) The policies in practice usually establish standard processes, models, practices, management tools, evaluation criteria, review time intervals which are to be implemented in the bank's entire system. The policies are mostly reviewed on an annual basis except for sudden happenings that urge a quick response.

Although banks still play the most vital part in protecting themselves from unfavorable occurrences, bank regulators have their important responsibilities. Banking in most countries falls under extremely strict supervision despite the increasing trend of liberalization and deregulation. Two main reasons are "banks collect deposits from ordinary savers and they play a key role in the payment and credit system". In any case that banks fail to meet their obligations, the governments will be the rescuers (professionally called *lender of last resort*). Therefore, stringent control is indispensable. (Crouhy, et al. 2006, 56)

Internationally, the most well-known regulation is the Basel Accords issued by the Basel Committee on Bank Supervision. Basel II (2004), which is the successor of Basel I (1988), is currently being in use. The overall aim of Basel II is adequate capitalization of banks and best practice risk management to reinforce the banking system's stability through "three pillars": minimum capital requirements, supervisory review and market discipline. (Crouhy, et al. 2006, 74-75) Many countries, especially the European ones, have adhered their operations with Basel II. However, most developing nations, including Vietnam, are still on the way to adopt it. In those cases, central banks have a significant role in issuing nationwide control policies, guiding banks to implement them and following up banks' performance.

2.3. Credit and Credit Risk

The readers have just been introduced several basic ideas about risk, risk management and the special case, banking risk management. However, for the scope of a bachelor thesis, discussing all risks in banks seems to be too much and the audience will easily feel unfocused when they do not know what to concentrate on. Hence, the topic of this thesis was narrowed down to credit risk practices in a single commercial bank. In order to understand credit risk management, knowledge of credit and credit process should first be acquired. Then, where and how does credit risk in a bank arise? Next, what are the components of a credit risk management strategy? And finally, what factors determine an effective system and its implementation?

2.3.1. Credit

Credit is defined by the Economist Dictionary of Economics as "the use or possession of goods or services without immediate payment" and it "enables a producer to bridge the gap between the production and sale of goods" and "virtually all exchange in manufacturing, industry and services is conducted on credit". (Colquitt 2007, 2)

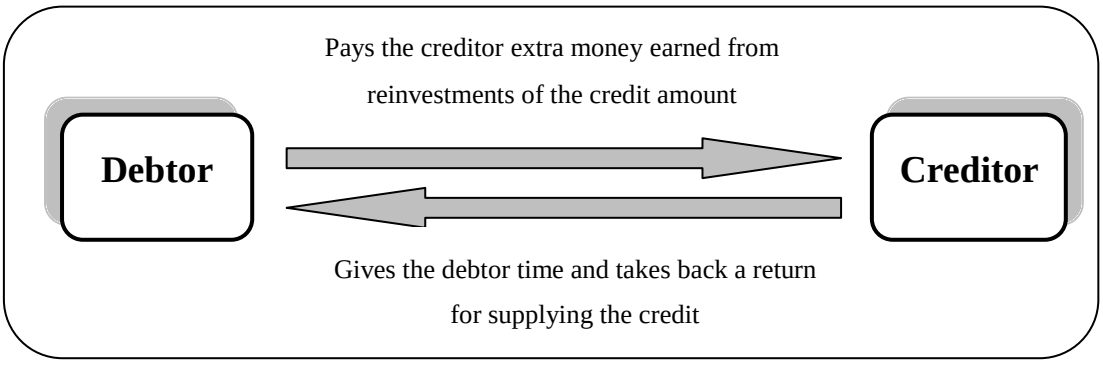

Figure 4. Relationship between Creditor and Debtor (Adapted from Colquitt 2007, 2)

Consequently, credit generates debt that a party owes the other. The former is called a debtor or borrower. The latter is a creditor or lender. Certainly the debtor will have to pay an extra amount of money for delaying the payment. In that circle, both debtor and creditor expect a return which is worth their paying more and waiting, respectively.

So now it is clear why credit exists and how important it is to the economy. Firms or individuals that run short of capital need credit to continue or expand their businesses/investments. The ones that have excess money, on the other hand, never want to keep it in the safes. As a result, all are growing and making more money.

Demand and supply together exist but do they meet each other? Here borne financial intermediaries who act as the bridge between credit suppliers and clients. Now in this innovative phase of the global financial-services industry, numerous types of financial institutions have joined the credit supplier group: insurance companies, mutual funds, investment finance companies, etc. (Colquitt 2007, 2) Nevertheless, banks are still the dominant source that both individuals and corporates seek credit from.

In banking specifically, two primary kinds of credit services based on customer categories are offered: retail credit and wholesale credit. Lending in retail or personal banking are subject to individuals and may fall under: home mortgages, installment loans (e.g. consumer loans, educational loans, auto loans…), credit card revolving loans, revolving credits (e.g. overdrafts), etc. (Crouhy et al. 2006, 207-208). Wholesale lending, on the other hand, involves firms as the borrowers and therefore is of much higher value, more complicated and poses more threats to the banks.

2.3.2. Credit Risk

Quite often in the previous sections of this paper, credit risk has been mentioned or even defined. However, it still needs to be repeated from a deeper point of view. Basically, it is understandable that credit risk occurs when the debtor cannot repay part or whole of the debt to the creditor as agreed in the mutual contract. More formally, “credit risk arises whenever a lender is exposed to loss from a borrower, counterparty, or an obligor who fails to honor their debt obligation as they have agreed or contracted”. This loss may derive from deterioration in the counterparty’s credit quality, which consequently leads to a loss to the value of the debt. (Colquitt 2007, 1) Or in the worst case, the borrower *defaults* when he/she is unwilling or unable to fulfill the obligations (Crouhy et al. 2006, 29).

That is the story Greece is facing. The Greek government, on behalf of the country, is a debtor to a lot of banks in Germany, France, etc. Now when the country defaults and is not able to pay the debts, EU and IMF have to interfere to prevent the country from going bankrupt and also to help the European banks avoid big losses. (The Wall Street Journal, 2010)

In banks, credit failures are not rare and they critically affect the bank's liquidity, cash flows and eventually, profit and shareholders' dividends. Banks call them *'bad debts'*. Modern banking no longer experiences credit risk solely in its traditional activity of loan making. In reality, credit risk falls in a broader scope. For instance, a well-known British banking group sees that the group's credit risk may take the following forms:

- Lending: funds are not repaid
- Guarantees or bonds: Funds are not ready upon collection of the liability
- Treasury products: payments due from the counterparty under the contract is not forthcoming or ceases
- Trading businesses: settlement will not be effected
- Insurance risks reinsured: the reinsurance counterparty will be unwilling or unable to meet its commitments
- Cross-border exposure: the availability and free transfer of currency is restricted or ceases
- Holdings of assets in form of debt securities: value of these falls e.g. after a downgrading of credit rating

Again it is necessary to stress that credit risk has always been the biggest threat to any bank's performance and "the principal cause of bank failures" (Greuning & Bratanovic 2009, 161). Therefore, a sound credit risk management framework is indispensable to a healthy and profitable banking institution. The following part will give the audience a clearer view of how credit risk management looks like in a bank.

2.4. Credit Risk Management

In banking, credit risk is taken for granted as a fundamental feature of the institutions. If an organization refuses to acknowledge the inherent risk, it is not in

the lending industry. Wherever risk survives, its enemy, risk management, will also exist and fight against it. Credit risk management is simply the procedures implemented by organizations with the aim of diminishing or avoiding credit risk.

Credit risk management has been a hot topic of debate as it is one of the fastest evolving practices thanks to institutional developments in the credit market, diversification of financial institutions participating in the lending business and modern technologies. (Caouette, Altman, Narayanan, Nimmo 2008, xvi-xvii) As also discussed by the four authors above, credit risk management lies in an expert analysis system, whose objective is to "look at both the borrower and the lending facility being proposed and to assign a *risk rating"* (Caouette, Altman, Narayanan, Nimmo 2008, 106). The analyzed information is summarized in figure 3 on the next page. Among the evaluated data, financial ratios are perceived to be very important. The philosophy that Caouette, Altman, Narayanan, Nimmo presents is that credit risk management is a form of engineering in which "models and structures are created that either prevent financial failure or else provide safeguards against it". The emphasis of these four authors' book "Managing Credit Risk" is credit risk models. However most of the models are for enterprises in general. For financial institutions or banks, perhaps the credit analysis system is of much larger help.

Banking credit risk management in the eyes of Crouhy, Galai & Mark (2006) can be divided into retail and commercial credit risk management. Credit risk management based upon portfolio management is highlighted for both retail and commercial. This means that the customers are categorized into different portfolios, each of which is homogenous in several characteristics. Instead of manage every single client, the bank will handle them in groups and therefore usually saves time, effort and cut cost. For retail banking, the book introduces the credit scoring model that is customized for personal banking. Commercial lending, on the other hand, will utilize the helpfulness of internal risk rating system established based on the rating system of professional credit rating agencies such as Moody's, Fitch Ratings or Standard and Poor's. Either the credit scoring or internal rating is both based upon financial and non-financial assessment. Several credit models and credit derivatives are also presented as new

approaches to, respectively, measure and to mitigate credit risk management. (Crouhy, Galai & Mark 2006, 207-324)

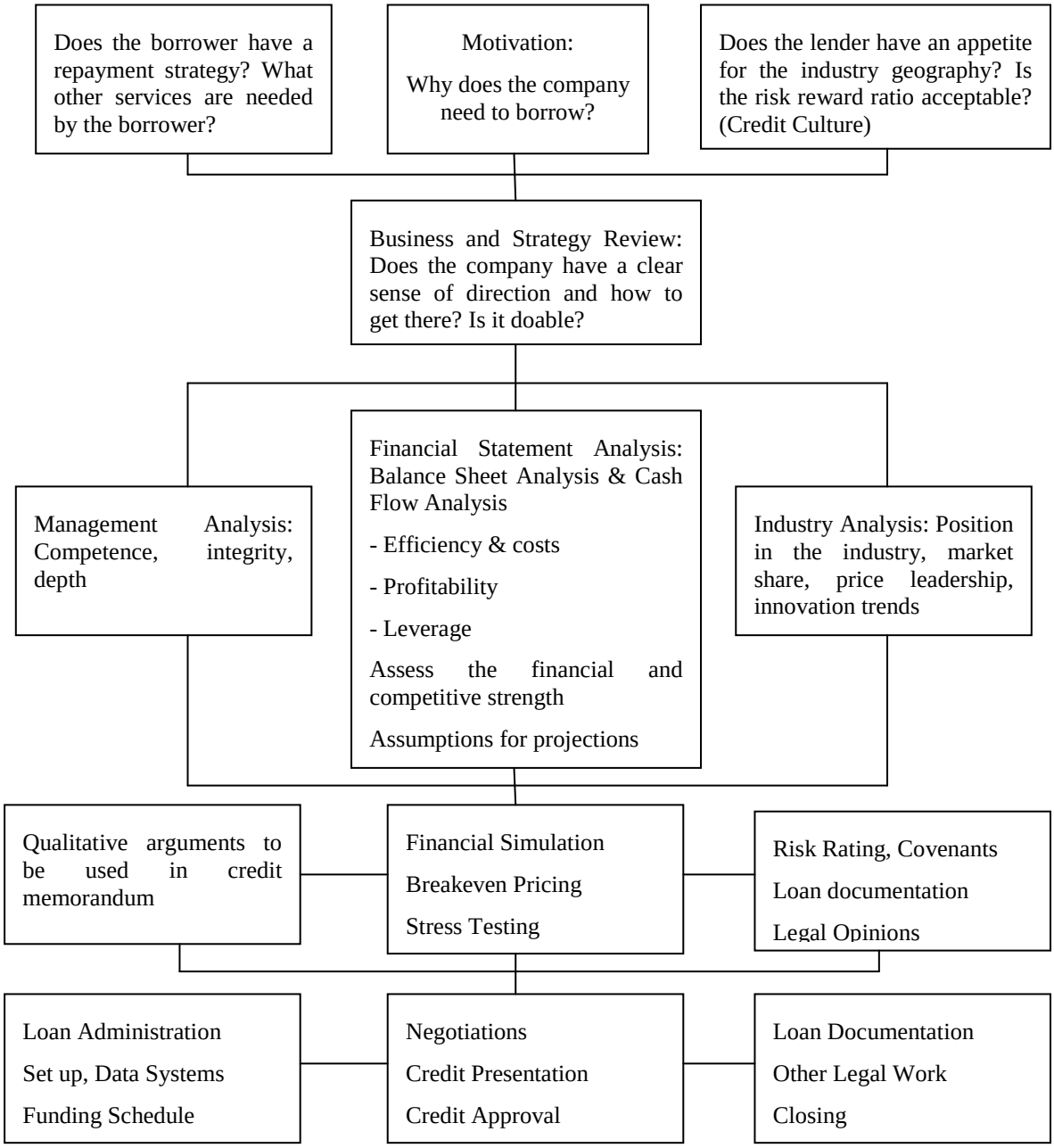

Figure 5. Credit Analysis Process Flow (Caouette, Altman, Narayanan, Nimmo 2008, 108)

For the scope of a bachelor's thesis, it will be extremely burdensome if credit risk management measurement is based on credit models. The thesis would like to make the assessment from simpler but also very comprehensive theory that is explained in the book of Colquitt "Credit Risk Management: How to Avoid

Lending Disasters & Maximize Earnings" (2007). According to him, credit risk management is embodied in:

- Credit culture
- Credit organization
- Credit policies
- Credit risk management process, i.e. activities in reality

2.4.1. Credit Culture

A lending organization's credit risk management framework is designed under an umbrella guideline called 'credit culture'.

Credit culture covers the "attitudes, perceptions, behaviors, styles, and beliefs that are conducted and practiced throughout the credit organization as a result of management attitudes towards credit risk". It is usually presented in "the mission, objectives, and lending strategies to legitimatize the value placed on credit quality and safe sound lending practices". (Colquitt 2007, 30-34) Credit culture supplies a general framework to guide day-to-day credit decisions. For instance, a UK banking group acknowledges successful control and management of risk require a strong credit culture, which seeks to minimize credit losses as well as to enhance risk-adjusted returns. Credit culture plays a role as the foundation upon which credit discipline, policies, systems are established. The previously mentioned UK banking group identifies the fundamental elements of its credit culture are:

- Clear policy and guidance: clear and consistent credit principles, policies, procedures and guidance
- Approval and control: define credit risk management function's responsibilities
- Credit discipline: the group's attitude towards risk and risk management, requirements in credit risk officers
- Capital discipline: correct pricing and credit risk management to fulfill economic capital requirements
- Credit systems and methodologies: standard systems and methodologies, some measurements of risk.

- Risk appetite: the amount or risk that the group is willing to take on, the degree of risk tolerance.

According to Colquitt (2007, 31-34), an effective credit culture should include: the maximum annual growth rates for loans, the targeted returns, acceptable exposure levels (quantified) of different debt types (based on liquidity and term structures), desired loan portfolio composition, desired portfolio growth and targeted earnings, credit standards used in assessing loan requests for each type of loan, risk appetite, lending authority and approval limits (optional).

Nonetheless, from Strischek's point of view (2002), the key elements of a credit culture are:

- Top management's commitment: The top managers inside the organization, more than anyone, should strictly comply with the culture.
- Credit discipline: Credit discipline is a large thing that comprises of credit policies, risk appetite, internal risk rating system, credit administration, loan review and collection, and lender accountability.
- Priority-based incentives: "Ideally, incentives are tied to priorities and to performance standards for credit quality and portfolio profitability."
- Risk-managed lines of business: a clear distinction among risks of different lines of business and credit risk management approach towards each of them.
- Clear, consistent, and candid communication: "Positive and periodic communication is necessary to reinforce the culture."

While Colquitt has a tendency for quantitative factors, Strischek is more about qualitative determinants. A credit culture is usually effective for a long period so the numerate targets are somehow unrealistic. The targets are constantly changed depending on various business and market conditions. But Colquitt has good points there when he wants a credit culture to have desired loan portfolio composition (similar to lines of business), standards used in assessing loan requests, risk appetite or the lending authority and approval limits. To summarize,

the credit culture ought to contain Strischek's five points plus Colquitt's four mentioned points.

In addition, it is vital that all credit persons – people related to extending business credit – have firm understanding of the credit culture and process. Ultimately, the credit maker's performance expressed by earnings and credit quality is the key determinant of a successful credit culture.

2.4.2. Credit Organization

Credit organization and administration refer to the human factor of the credit function in a banking institution. Each lending organization has its self-designed credit process but basically the processes include the same tasks in a cycle:

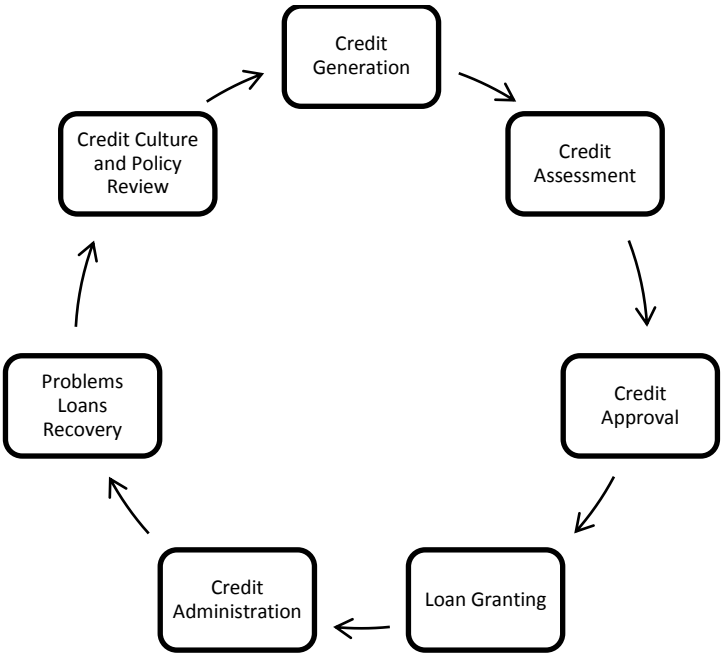

Figure 6. Credit Cycle (Adapted from Colquitt 2007, 24)

Credit organization means the hierarchy of the people participating in the above cycle. For some banks, the structure may take geographical areas into account. In large banks, each function in the cycle may be carried out by one separate person. In smaller banks, one person can be in charge of several duties. In the investigated transaction office, for instance, a relationship manager is responsible for: credit generation, credit assessment, loan granting, and credit administration. Very often, credit risk management function will be led by the head of credit risk management. Under him/her will be credit officers and relationship managers. If

the bank operates in different regions, regional manager can be direct boss to credit officers and relationship managers. In general, the organizational structure varies. Management approaches can be centralized or decentralized. The former means credit department is in charge of every credit-related activity from credit generation to policy review. The decentralized style, on the other hand, emphasizes mutual contribution of both sales (find borrowers and assess repayment capability) and credit units (other tasks).

Three essential functions in the cycle that directly affect the quality of credit risk management implementation and should get special concern are credit assessment, credit approval, and credit administration.

Credit assessment is usually done by the relationship managers or credit officers. This task involves checking the loan applicant's legal position, aim of borrowing, business or industry and any recorded borrowing information in the past. Credit assessment is one basis for credit approval.

The person in charge of credit approval will also consider the bank's policy regarding types and amount of collateral, exposure limits of a particular industry, etc. and if possible, gives the borrower some risk ratings to facilitate his decision. In practice, a number of people are responsible for approving loans. The higher position in the credit institution the person stands, the larger value of credit he/she can approve. A Chief Risk Officer certainly has more power than the Branch Manager in authorizing loans.

Credit administration, on the other hand, does the post-approval job of monitoring the loans' credit quality and the borrowers. A credit controller has to check if the borrowers are still adhering to their commitments in the loan application and if the credit quality has been deteriorated due to some reasons. Besides, internal auditor can give a hand in examining documentation procedures. A small mistake in documentation may be utilized by untruthful borrowers and go against the bank in an unexpected way.

(see, e.g. Colquitt 2007, 20-30)

2.4.3. Credit Policies

Any kind of organization must work under certain regulations, or in other words, policies. In credit risk management, formal policies are always of great importance because lending or financing activity is, most of the time, routine and structured. Well-established policies and procedures will enhance handling speed and eliminate unnecessary repeated work. In banking business, two main types of policies directly influence the way the banks operate and manage credit risk: Regulatory external policies and the bank's internal policies. By policies here, the author means any kind of written documents issued to guide credit risk management practices. They can be laws, decrees, decisions, strategies, policies, procedures, guidelines, or manuals.

2.4.3.1. Regulatory External Policies

As mentioned in the 2.2.2, banks fall under strict regulations set by the governments and international organizations. The most famous international legislation worldwide is the Basel Accords. Basel II is currently effective but Basel III is on the way to take over it. Credit risk is extremely concerned by regulators in the Basel Committee on Bank Supervision. The first pillar of the Basel Accords deals with minimum capital requirements which are helpful in facilitating the bank to deal with credit risk and 2 other types of risk. (Crouhy, et al. 2006, 74-75) Currently Basel II requires the capital adequacy ratio of 8% but it is subjected to increase to 14% according to Basel III. This results from the recent financial crisis that hit the world hard in 2008 and 2009. (Wall Street Journal 2010)

At present Basel Committee have only 27 members, which means banks in 27 countries are following Basel II. In other countries, the governments and central banks will issue legislations regarding banking practices, specifically credit activities. Central banks also oversee the implementation of those legislations in each and every member bank. The regulations often include:

- Limitations on single customer: the maximum permitted exposure to a single client, related group, or an economic sector (Greuning & Bratanovic 2009, 162).

- Provisions for loan losses: the reserves that the bank keeps to deal with potential losses from loan making activity.

For the regulatory policies, the banks have no choice but to rigidly follow. Any non-compliance with the laws may lead to severe punishments.

2.4.3.2. The Bank's Internal Policies

If external policies aim at limiting exposures, the bank's own policies are designed to reduce credit risk and maximize returns. There can be a wealth of formal written policies related to credit activity but the most important is the lending policy (or procedure).

The first and foremost requirement for successful credit risk management is a clear and well-structured lending policy. A lending policy should specify how loans are organized, approved, supervised and collected. It should also contain the following fundamental points:

- Lending authority and limits for each credit approver
- Duties of each credit person or sub-unit
- Assessment process and approval criteria
- Regulation on a complete loan application document
- Loan pricing (risk-based) and maturities
- Post-approval supervision and collections control
- Overdue debts and recovery
- Processing time

Besides lending policies, there can be a number of other policies such as:

Policies on Collateral: Collateral is a borrower's pledge to secure a loan or other credit products. It acts as a guarantee that the borrower will repay the credit. Mostly the Collateral has a bigger value than the credit (at the time of credit application). However, any change in market may lead to a reduction in the Collateral value, which means deterioration in the credit quality.

Internal credit rating system: A powerful credit risk measurement tool used by a lot of banks. This system automatically makes some calculations of the debtor's information (identity, financial data, nature of the industry that the debtor belongs

to, the status of the debtor, the potential effect of macroeconomic events on the debtor, etc.) and gives out a result which is called the rates. The bank will identify a certain investment grade which means credit applicants falling within the investment grade will be granted loans.

Asset Classification Categories: The categorization of debt based on different criteria such as types of customers (individuals, corporate, financial institutions), values of customers (SMEs, big corporate, global organizations), or terms of structure (1 month, 3 months, 9 months, etc.)

Loan Loss provision: the reserves that the bank sets aside to cover any unexpected default and thus, to prevent the bank from bankruptcy.

(see, e.g. Greuning & Bratanovic 2009, 162-187)

2.5. Evaluation of Credit Risk Management Implementation

The previous chapters have explained through basic concepts, definitions and many related details of risk, banking risks, risk management, risk management in banks, credit risk, and credit risk management. The main objective of this thesis is to evaluate the effectiveness of a bank transaction office credit risk management practices. The effectiveness of a credit risk management framework lies partly on the perfection of credit risk management determinants mentioned in the previous part and partly on how the bank, or the credit people in the bank, in reality carry them out.

While numerous publications have dedicated their intelligence on credit risk management and measurement, none puts a genuine emphasis on the evaluation of credit risk management practices. This thesis wishes to fill in that gap with a set of benchmarks for assessment. This 2.5 section will summarize the criteria or benchmarks which are going to be used in the analysis and assessment of the empirical part. An important note is that the evaluation is based on the traditional and fundamental non-quantified tools, which mean no computational finance methods (credit models, credit metrics, etc.) are used.

This list of criteria is self-established based upon the literature presented above in addition to some research papers on credit risk management in Indian and

Vietnamese banks. For instance, the traditional tools of credit risk management are: loan policies, credit proposal standards, delegation of loan approving powers, credit approving system, limits on credit exposures, instructions on collaterals, loan review mechanism, non-performing loan collection method. (Arora & Agarwal 2009, 23) Or some typical benchmarks for credit risk management discussed by Ardrey, Perryer, Keane & Stockport (2009, 6) consist of: an established risk management philosophy (or culture), risk tolerance level planning and definition, risk identification policies and procedures, risk monitoring and risk quantitative benchmarks (risk scores, value at risk…).

The mentioned tools and benchmarks have been integrated in to the list presented below. Several criteria have appeared here and there in the previous text. Others are derived from the literature and first time introduced in this section. The criteria are classified into 4 groups: credit culture, credit policies, credit personnel & organization and credit performance.

Group 1. Credit Culture

1. Does the bank have its own credit culture, which is clearly defined in written form and recognized by all employees?
2. Does it contain the information mentioned in 2.4.1 part about an effective credit culture?
3. Is the risk appetite stated and does it accurately respond to the bank's risk capacity?

(see, e.g. Colquitt 2007, 20-30)

Group 2. Credit Policies

1. How do the Central Bank's regulatory policies help the bank in credit risk management?
2. Does the lending policy contain key details listed in 2.4.3.2 part?
3. Is there any rule for collaterals?
4. Is the bank using an internal credit risk rating system? How does it look like? How does it help the employees in their work?
5. Is there any debt classification? If yes, how can the classification help the bank's operation?

6. Are the policies and procedures constantly reviewed and improved?

(see, e.g. Greuning & Bratanovic 2009, 162-187)

Group 3. Credit Personnel and Organization

1. What are the staffs like? (education, skills, experience, positions, responsibilities)
2. Do all staffs in the transaction office fully understand the details of credit culture, policies, process of the bank?
3. What are the control activities in the bank? (management structure, loan review, internal audit)
4. How is the information flow within the organization? (top-down, bottom-up; timely, complete and accurate)

(see, e.g. Greuning & Bratanovic 2009, 188)

Group 4. Credit Practices and Performance

However complete the bank's credit culture and policies can be, the utmost standard for a successful credit risk management framework lies on the bank's actual practices and performance. The non-performing loan statistics are typical demonstration of good or improper credit risk management. Besides, loan loss provision plays the role of a cushion for any potential losses. The prudential ratios also contribute to sound financial and risk management at the banks.

Specifically, these questions should be investigated:

1. How are the credit culture and policies understood and implemented?
2. How much are bad debts in recent years? What is the ratio of bad debts/total outstanding loans?
3. What is the loan loss provision? Any conclusion from the amounts?
4. How is the bank complying with prudential ratios?

To conclude, an investigation of all criteria above may give the audience a broad picture of how credit risk management is implemented inside the subject transaction office of this thesis and a tool to evaluate the effectiveness of those practices.

3. RESEARCH METHODOLOGY

A thesis is all the time, in one way or another, a research conducted by a student who, in this case, becomes a researcher. A research is what "people undertake to find out things in a systematic way, thereby increasing their knowledge" (Saunders, Lewis & Thornhill 2009, 5). This is a very brief and easy to understand definition. If the readers want a more comprehensive way of defining, this sentence can be more satisfactory "A focused and systematic enquiry that goes beyond generally available knowledge to acquire specialized and detailed information, providing a basis for analysis and elucidatory comment on the topic of enquiry" (White 2003, 21). Both of these are good explanations and emphasize important characteristics of a research.

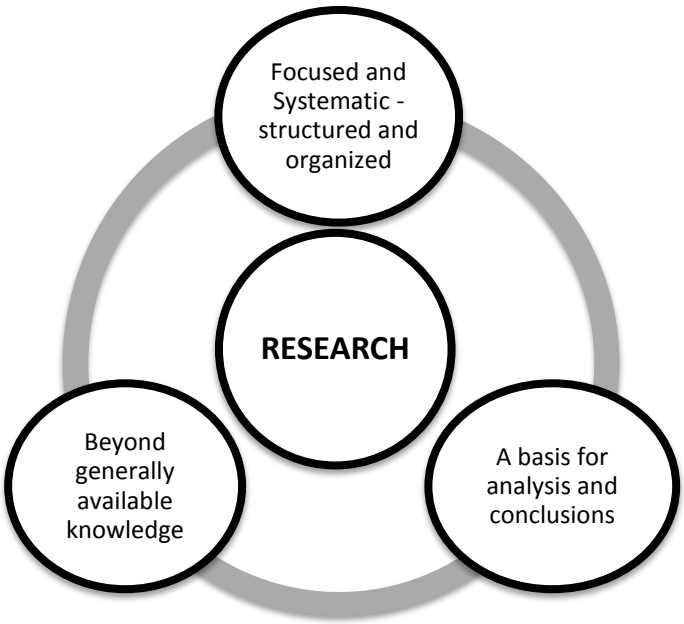

Figure 7. Features of a Research (Adapted from White 2003, 21 and Saunders, Lewis & Thornhill 2009, 6)

In this thesis, the research is believed to contain those significant features.

Focused and systematic: the investigated subject of this thesis has been narrowed down to only one small bank. Moreover, this thesis is conducted in a structured way step by step: critical literature review, relevant information collection based on literature, organized information grouping for analysis purpose, conclusions

based on analysis and already existing knowledge. Also, the writer understands certain limitations that this research carries.

Beyond existing knowledge: Credit risk management in the researched bank has been given quite a lot of attention but still, the author thinks that it should be re-evaluated and developed. The researcher work on this thesis with a hope to help the bank understand more thoroughly how they are operating and give valuable comments and suggestions for their sake.

Analysis and conclusions: The analysis is primarily based on theoretical knowledge and interpretation of the data collected during the research.

A research always begins with defining the research topic and problem. The problem guides the research into the right direction. For this thesis, the problem of "implementation of credit risk management in a Vietnamese commercial joint-stock bank" has been clearly identified since the beginning. A well-designed research plan is the next step, in which the researcher decides what kind of data he is going to use, which methods he will apply to collect data and how he will collect them (data collection instruments). In the following sections, the readers will have a closer look into the data and research methods particularly employed in this written work.

3.1. Research Data

Basically, any research supporting evidence can fall into 2 categories: primary or secondary data. As presented earlier in the Introduction, both secondary and primary data have been utilized for this thesis.

3.1.1. Secondary Data

Secondary data are facts and figures collected by someone other than the researcher himself. These data can be used for purposes different from the researcher's. (Ghauri & Gronhaug 2010, 90) For instance, a student doing research on economic growth factors can take a line graph showing GDP data in the 2000-2010 period from the national statistics bureau.

Secondary data, in fact, usually help the researcher a lot in the beginning phase of their study, especially when the research problem is not familiar. The literature in

the theoretical background section is the very first example of secondary data. Secondary data can be obtained through numerous sources. Some divide the sources into publication (books, journal articles, etc.) and electronic (websites, emails, anything from the internet). Others like Saunders, Lewis and Thornhill (2009) gives these categories: documentary (books, reports, newspapers, transcripts, voice recordings, video recordings, etc.), survey-based (any data collected using survey strategy), and multiple source (documentary combined with survey-based combined) secondary data. Another way of classification is: internal and external sources (Ghauri & Gronhaug 2010, 97).

Secondary data are particularly useful to this thesis. A teacher's materials at school triggered an interest in the author to write something in risk management. Intense review of books, articles, academic journals (publications) or electronic sources related to the topic during one month has helped to narrowed down the research problem to credit risk management in a commercial bank. Accidentally, the writer went through an article about risk management framework improvements in Vietnamese small commercial banks and would really love to study more. In Vietnam, disclosure of information in banking business is an extremely sensitive issue. Primarily the researcher has to base her analysis on information provided by the bank in published annual reports or news and existing regulation documents. Without secondary data, this thesis would never become a reality.

3.1.2. Primary Data

Primary data, in contrast with secondary data, are originally collected by the researcher with the aim of directly supporting the research topic at hand (Ghauri & Gronhaug 2010, 90). Primary data are superior to secondary ones in a way that they are chosen and collected so that they completely fit the purpose of the research. For instance, you need only GDP figures for your study. However the sources where you take the figures from contain also family income information, tax revenues, etc. Sometimes, all of these are presented in one table and one chart and the researcher has to take out the GDP data only and draw the chart by himself. Nevertheless, it is undeniable that gathering primary evidence takes

time, frequently costs more and depends a great deal on the willingness, honesty and ability of the respondents. (Ghauri & Gronhaug 2010, 99-100)

However tough gathering the data is, primary data are still encouraged in a student's final thesis because it is a way for the student to practice and apply what he has learnt in reality. Being capable of conducting a research is indispensable in academic learning.

Besides secondary data, primary data are also used in this thesis. The main objective of this study is to evaluate actual execution of a credit risk management system. The staffs' activities are just done, not written in any documents that can be found in the bank's record files. Moreover, the assessment presented in the thesis emphasizes on actual practices but an official research on the transaction office's credit risk management operation has never been conducted anywhere. Hence, primary data are truly essential to this study. There are several options for collecting primary data, which will be discussed in the next part. Also, which options are employed will be presented.

3.2. Data Collection Methods

The options for collecting data that we mentioned above are technically called research methods. Before getting into further discussion, a distinction between research methodology and research methods should be clarified. While research methodology plays a role as the "philosophical basis" for the research – what approach is used, research methods are practical techniques adopted to gather research information. (White 2003, 20)

Basically qualitative and quantitative are the two primary alternatives for any researcher to conduct his/her research. Which method is more suitable and more effectively reflect the whole target population really depends on the research problem that he/she has. Qualitative methods are often used for exploratory purposes (hypothesis-generating) while quantitative ones are to test hypotheses. Qualitative research results in non-quantification data. Quantitative research, on the other hand, gives numerical analysis of the issues.

There is a growing trend in the business and management research that different methods are employed in one single research (Saunders, Lewis & Thornhill 2009, 151). When both qualitative and quantitative methods appear, it is called mixed methods research. As argued by Saunders, Lewis & Thornhill (2009, 153), mixed methods approach is advantageous in (i) serving different purposes of a study, (ii) multiplying the likelihood of unanticipated outcomes, and (iii) minimizing the 'method effect' and making the conclusions more valid and reliable ('method effect' always exists because each research method has its pros and cons and all the time influences the research results). In more details, the grounds for choosing mixed methods research can be:

- Triangulation: Mixed data collection methods to corroborate research findings within a study
- Facilitation: one data collection method will facilitate research using another data collection method in a study
- Complementarity: different aspects of an investigation will be studied by using multiple research methods
- Generality: a source of data will provide the main study context and quantitative analysis give sense of relative importance
- Aid interpretation: qualitative data explain relationships of quantitative variables
- Study different aspects: quantitative discovers macro aspects while qualitative discovers micro ones.
- Solving a puzzle: another data collection method is used because the initial method provide insufficient findings for analysis

(see Saunders, Lewis & Thornhill 2009, 154)

In the practical case of this thesis study, qualitative and quantitative methods are indeed employed to tackle different aspects of the research problem. Whereas the qualitative method is used to gain understanding of the actual practices inside the bank and the transaction office, the quantitative one has served a smaller purpose of figuring more about the credit staffs (their characteristics like education, skills, experience, responsibilities, etc.). Nevertheless, the outcomes of each method do

not separate from each other but together facilitate the research findings' analysis, which means the 'triangulation' benefit is still grasped. Triangulation can also be perceived as cross-checking or cross examination of results of the two methods. If the readers have a look at the content of the interview and questionnaire in appendix 3 and 4, they can realize several questions in the interview have been repeated in the questionnaire. For instance, while the interview asks about the types of risk management policies and their elements, the questionnaire seeks for the employees' assessment of their own understanding of the policies by a score scale from 1-5. Later in the analysis, these findings will be corroborated to find out the employees know the bank has those policies but their true knowledge of the policies' details is not as good as expected. Hence, by cross examination, this thesis will generate more reliable outcomes.

Another important reason for utilizing multiple methods in this thesis is to mitigate the 'method effect'. The interview is conducted with 2 credit staffs at the same time and is face to face. To some extent, the researcher's comments, tone or non-verbal behaviors or one respondent's answers can influence the other's responses. To reduce these negative effects, the questionnaire is more personal and it will protect the respondents' privacy as well as enable their honesty in answering to the questions.

More explanation of the two collection methods will be in the following parts.

3.2.1. Qualitative Methods

Qualitative in research means descriptive, non-numerical, non-quantified way to collect and interpret data. "With a qualitative investigation the researcher observes a great deal and any results are mostly descriptive in nature rather than sets of numerical data." (White 2003, 28)

A number of qualitative techniques have been developed from time to time, representative of which are interviews, focus groups, and observations. Interview, more specifically in-depth interview (IDI), is the technique that collects information for this study. As defined by the business dictionary, an in-depth or face-to-face interview is "conducted usually on one to one basis, an IDI is designed to reveal the underlying motives of the interviewee's attitudes, behavior,

and perceptions." (Business Dictionary 2010) Face-to-face interview allows much interaction between the interviewer and interviewee. In this type of interview, the researcher often has a pre-determined set of questions beforehand but flexibility is a must, which means the researcher will adapt the questions to the practical situation. He can add more questions, change the questions a bit or re-order them, etc. Like other qualitative methods, the interview aims at giving a complete, detailed description, gaining understanding and providing insights into the research problem. Saunders, Lewis and Thornhill (2009, 324) concludes that an interview is the most suitable approach if (i) the number of questions is large, (ii) the questions are complex and open-ended, and (iii) the order and logic of questioning need to be varied.

Focus groups and observations obviously are inapplicable in this research because the population is so small (only three credit staffs in the unit). For this thesis, a face-to-face interview with two employees (one relationship manager and one credit assessment officer) in the credit unit of the transaction office was carried out. The researcher prepared 15 questions, which is definitely not a small number. The questions seek to dig deeply into the practices inside the bank and are very flexible (see Appendix 3). Thus, in-depth interview is the most appropriate method. The interview went quite well and lasted for about 1 hour. Basically 15 questions were fully answered. The order of the questions was changed a little to adapt to the flow of the conversation.

Qualitative techniques are extremely useful for exploratory research – a research that has an unfamiliar problem – because they help to establish hypotheses for analysis purpose (Ghauri & Gronhaug 2010, 106). However, it does not mean a descriptive and causal research cannot employ these techniques. This thesis is an example of descriptive and causal research. The research problem is fully understood and the thesis' aim is to describe risk management framework in the targeted bank as well as to comment on the effectiveness of the bank's risk management implementation. Nevertheless, qualitative research method here in this case still proves to be of great assistance in several ways:

- Gathering details of the subject bank's credit policies: how the policies look like and if they contain fundamental information.
- Discovering how credit unit in the transaction office work and whether its operation complies with the policies
- Understanding how well the transaction office is performing based on comparing historical data and figures from year to year
- Detecting the credit employees' understanding of and attitudes towards the bank's formal policies.

3.2.2. Quantitative Methods

Unlike qualitative methods in which the researcher uses non-quantification way to interpret the collected data, quantitative methods mean the assessment of the research results is the product of a series of mathematical and statistical calculations and presentation (White 2003, 24). Very often statistical analysis is used to test some hypotheses. For instance, people who smoke possess a higher threat of getting cancer, is it true? This can be evaluated if the researcher, for example, has the number of smoking and non-smoking people getting cancer in the last five years at hand and knows basic knowledge of mathematics or statistics.

A typical quantitative method is survey, which can be conducted either through an interview (like qualitative interview) or through a questionnaire. A survey only fulfills its job when the researcher carefully chooses the sample which is representative of the population to reduce bias and ensure reliability and validity. (White 2003, 49)

For this particular thesis, the population is so small because the credit unit of the bank's transaction office has only 3 staffs. Hence, sampling here is unnecessary. For the purpose of gaining understanding of the employees' skills and personal opinions on the bank's policies, a questionnaire is designed. As we all know, a questionnaire is a series of questions, frequently in an established order, that give respondents a number of fixed-response alternatives to choose for their answers (White 2003, 50).

A questionnaire gives the researcher more freedom to choose the way he approaches the target respondents. If for in-depth interviews it should be face-to-face, for a quantitative interview, the researcher can conduct it through telephone or mail. Questionnaire in general saves time and money. Instead of interviewing each and every person, a large number of people can fill in the questionnaire at the same time. (Saunders, Lewis & Thornhill 2009, 362-366)

In the investigation for this thesis, the questionnaire is handed out to the respondents by hand so the threat of getting low response rate is totally eliminated. The respondents are three credit staffs that I have mentioned above, two of who also participated in the interview earlier. The questionnaire consists of 12 questions in a structured order. The first four questions aim at getting to know about the credit person. The other eight examines his/her perspective of the relationship between their job and credit risk management as well as his/her role in making any changes to the bank policies. This questionnaire actually facilitates understanding of credit staff's skills and know-how, which plays an important role in determining the quality of credit risk management practices. (See Appendix 4)

3.3. Validity and Reliability

Validity and reliability of a research is a key determinant of the true value of this research in the practical working life. While reliability is concerned with the result consistency (Proctor 2005, 208; Saunders, Lewis & Thornhill 2009, 156), validity is about the 'honest' nature of the research conclusion and applicability (Ghauri & Gronhaug 2010, 65). Certain obstacles, either subjective or objective, may hinder a research study's reliability or validity.

The four 'threats' to reliability are:

- participant error: the research conducted in different times may generate different results.
- participant bias: the participant (or respondent) may not be honest because of some fears
- observer error: researchers have different ways to carry out the research
- observer bias: researcher A interprets the findings differently from researcher B

(Saunders, Lewis & Thornhill 2009, 156-157)

Hindrances to validity can be history (external events occurring at the same time of the research may have an impact on the response), testing (the research in a way or another affect the respondents), maturation (sudden changes during the research period), mortality (participants drop out of the studies) and selection bias (subjects are not chosen randomly). (Saunders, Lewis & Thornhill 2009, 157; Ghauri & Gronhaug 2010, 66)

Reflecting those impediments on this research, the thesis is proved to be fairly reliable and valid. On the side of the research participants, they are interviewed at the time when there are no customers so that they feel more relaxed at answering the questions. Also, the interviewees are voluntarily willing to participate in the study so the participant bias should be eliminated. On the researcher's side, the content and the analysis of the interview's and questionnaire's results are based closely on the theories presented in the theoretical and research methodology part. All the recorded findings are fair and truthful. The researcher believes that other observers will have the same conclusions after conducting the research on this transaction office at the same time.

History, maturation, mortality and selection bias effects were not existent in the research. The investigated transaction office has only three credit staffs and all of them have taken part in the study. The testing effect, however, does exist because this research investigates directly the activities of the research participants. But its negative impact has been minimized by the researcher when she ensures the interviewees that this is anonymous and secret information.

Besides, the benefits of using both qualitative and quantitative methods (argued earlier) can also reinforce the validity and reliability. Furthermore, the research analysis takes into consideration not only findings from the primary data but a lot of secondary data have also been gathered and interpreted. The secondary data (annual reports, policies, business results) are officially published by well-known sources and cannot be manipulated by the researcher or the respondents.

To summarize, most of the validity and reliability impediments have been solved and therefore, this research is believed to remain valid and reliable.

3.4. Limitations

Limitations are what impede the perfection of this thesis study. First and foremost, due to the *data secrecy and overprotection* culture in the Vietnamese banking business, the author is not allowed to reveal the bank's and the transaction office's names in the thesis. They are always called the subject bank or the investigated transaction office. This poses some difficulty for the readers, especially the ones that are interested to know more about the bank.

Second, the performance statistics are limited. As will be discussed in the empirical study, Vietnamese banking sector is still very simple and non-transparent. The research can obtain only three-year financial data of the bank because the staff explained that they used another system before 2007 and it was impossible to take them (!). Due to the newness of the transaction office, business results of only two recent years have been acquired.

Finally, although the thesis mainly concerns with the transaction office, an interview with someone at the management level (e.g. from risk management department) would better facilitate the research findings and assessment.

4. EMPIRICAL STUDY

In the beginning chapter, we have discussed the research problem and questions, the reasons why this topic was chosen. Credit risk management is indeed not a familiar topic to everyone. Therefore, some background knowledge directly related to the problem was introduced in the second chapter. In that part, most important concepts, processes and criteria have been presented with a focus on risk, banking risks, risk management, credit risk and credit risk management. Then the third chapter is totally concerned with the research methodology employed to conduct this study. Both secondary and primary data, both qualitative and quantitative method are used and there was some explanation why.

This section will completely deal with practical application of the literature and analysis of the research findings in order to solve the research problem: describe credit risk management implementation in a bank's transaction office and assess the effectiveness. A small introduction of Vietnamese banking sector and credit market will come first. Following is an overview of the investigated bank and transaction office. Then most importantly, an insight into the credit risk management practices and evaluation of their execution will conclude the chapter.

4.1. Overview of Vietnamese Banking Sector & Credit Market

Vietnam is an emerging economy that has made considerable progress since the great socio-economic reforms began 24 years ago. Vietnam's transition from plan to market economy has had significant positive impacts on every business sector and the banking sector did not stay out of the trend. However, financial reform actually took place a bit later with the first milestone being the establishment of a "two-tiered" banking system. The number of banks has grown all the time along with an increasing number of banking products and services. No matter how numerous and modern those offers are, credit product still lies at heart of any bank's product portfolio. The credit market in Vietnam has its own characteristics, which will be discussed right after some details about the country's banking sector.

4.1.1. Vietnamese Banking Sector

As previously mentioned, the financial reform was remarked by the creation of a two-tiered banking system. Tier 1 is the State Bank of Vietnam (SBV) as the central bank, the regulator and the supervisor. Tier 2 is the operating system that includes the banks in the Vietnamese market. In Vietnam, banks are classified into 3 groups: State-owned commercial banks (SOCBs), Joint-stock commercial banks (JSCBs) and Foreign & joint-venture banks. (Tran 2008, 81)

State Bank of Vietnam is a key macroeconomic institution in the country. It acts as the central bank and has 3 primary missions:

- Formulate and amend monetary and exchange rate policies
- Frequently inform the general public the state of the economy and stance of the mentioned policies
- License and prudentially supervise banks to ensure the banking system stability
- Issue banknotes and government bonds

(Leung 2009, 53)

Regarding the third mission, SBV's supervision is implemented through issued legislations concerning banking practices and regular inspection of how banks comply with those legislations. It is vital that SBV staffs are highly skilled in auditing and commercial risk management together with possess good understanding of fundamental economics. That is why SBV is sending a lot of professionals for high-quality training in Western reputable universities.

State-owned commercial banks have a humble number of only 5, 4 major and 1 small, but dominate the banking market with about 70% of market share (Tran 2008, 58). Humorously, the SBV both supervises and has stakes in, or partly owns, these banks. This fun fact somehow prevents the fairness of prudential supervision. (Leung 2009, 53)

Joint-stock commercial banks emerge after the liberalization of the financial sector. There are 38 JSCBs at the moment (SBV 2010). Within this group, there is

further categorization based on the bank's size, chartered capital, market penetration, service quality, etc.

Foreign and joint-venture banks are currently enjoying a 13% market share and are gradually expanding in the market. Historically the restrictions from the central bank prevent them from fully participating into the Vietnamese market. As a commitment to WTO, since 2010 foreign banks can enter the country as 100% foreign-owned. At present, there are 5 wholly foreign-owned, 5 joint-venture banks and 28 foreign banks' branches in Vietnam (SBV 2010).

Despite the great improvement recently, the Vietnamese banking sector is still "perceived as weak and inefficient by global standards" (Tran 2008, 81). The fact that only 10% of the population, most of who live in big cities, uses banking services is quite sad for a fast-growing economy like Vietnam. Healthy competition in the banking industry seems not to exist yet due to SOCBs' manipulation and several restrictions on the access and operations of foreign banks. The lengthy process of approving a new product by central bank (3 months to over 1 year) is also a big hurdle to the development of the industry (Tran 2008, 107). A lot of reforms are still on the way and hopefully will positively change the banking sector face in the future.

4.1.2. Vietnamese Credit Market

The Vietnamese credit market, along with the financial and banking sector reform, has gone through several changes. For instance, SOCBs used to be instruments for social and political motives and lend to state-owned enterprises (SOEs) only but now they have made more commercial movements and been more competitive. Or during the period of 1996-2002, domestic interest rates on dong and foreign currency deposits and loans were deregulated (Leung 2009, 46). Furthermore, recently the SBV has agreed on the negotiated interest rates for medium- and long-term loans, which means commercial banks themselves can decide the rates to impose. A credit market consists of both deposit and loan markets. As time goes by since the 1990s, the credit market in Vietnam has grown much bigger both in absolute and relative figures to the GDP (Table 4).

Table 4. Deposits and Loans as % of GDP (Leung 2009, 46)

	2002	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*[f]
Deposits as % of GDP[a]	48	52	60	67	78	99	92
Loans as % of GDP[a]	45	52	61	70	75	93	93

For the purpose of this thesis, we will concentrate on the loan market only. Credit providers, or loan makers, in the market are 3 groups of banks we have mentioned above with dominant market share of SOCBs (Table 5). Besides the government is running 2 not-for-profit banks (Vietnam Bank for Social Policies and Vietnam Development Bank) and the Central People's Credit Fund, whose customers are mainly the poor and the ethnic minority people. All of these loan makers are credit institutions which are under supervision of the SBV.

Table 5. Vietnamese Banking Sector Market Shares (Leung 2009, 47)

	2000	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*6 Mos 2008*
Deposit market share									
SOCBs	78.4	80.8	80.5	79.5	78.1	78.6	70.0	58.0	NA
JSBs	11.3	9.2	10.1	11.2	13.2	14.3	22.0	29.0	NA
Foreign bank branches and joint venture banks	10.3	10.0	9.4	9.3	9.7	7.1	8.0	13.0	NA
Lending market share									
SOCBs	72	73	74	73	75	68	63	54	50
JSBs	11	13	15	15	14	16	27	38	50
Foreign bank branches and joint venture banks	17	14	12	13	12	16	10	8	

SOURCE: Data from 2000 to 2005: Vina Capital Banking report August 2006.
Data from 2006 to 2007: IFC, *Vietnam Financial Sector Diagnostic 2008*.
Data for 2008: World Bank, *Vietnam Development Report 2009: Capital Matters, World Bank Report to the Vietnam Consultative Group Meeting, Hanoi, December 4–5, 2008*.

Everyone who wants to study Vietnam's credit situation should be able to understand the following features of the market:

1. Market penetration
2. Main client and product groups
3. Risks inherent in the credit market

- Irrational division of market
- Poor lending practices and lack of credit information
- Lack of credit data
- High quantity of non-performing loans

4.1.2.1. Market penetration

Multiple sources have quoted the penetration proportion of banking services in Vietnam. According to Leung (2009), it is about 10% despite the fact that the potential market size can effectively double that rate.

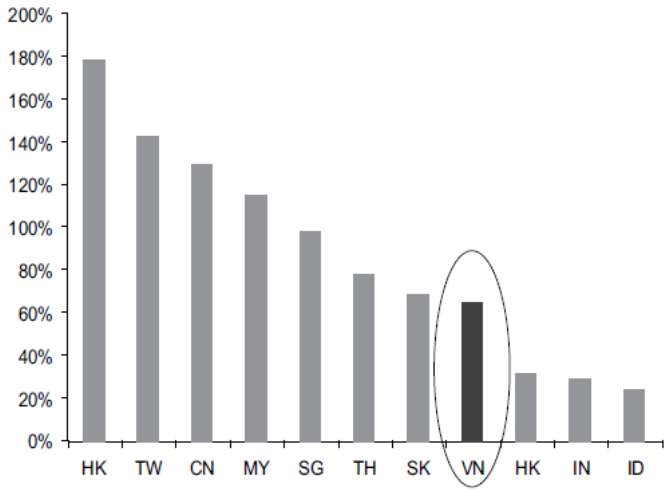

Figure 8. AsiaPac Loang Penetration - Loan to GDP, 2005E (Tran 2008, 75)

Certain reasons can explain for this sad fact. First, banks still have poor infrastructure and distribution channels in the country. Most JSCBs and foreign banks focus on the urban areas only. Second, banks are too cautious and reluctant to lend to individuals and small businesses because they are afraid of taking risks. Third, a large number of Vietnamese people still prefer informal lending through non-bank channels such as: family, relatives, friends, loan sharks. Informal lending is faster, easier and more convenient. Sometimes, the very strict requirements from banks pose a difficulty to borrowers and they have no other choice but use informal financing sources.

4.1.2.2. Main credit client and product groups

Segmentation is essential in all type of business because it helps to better anticipate customer needs and serve them effectively. Banks have different ways to divide their client portfolio into segments. Basically there are 3 categories: corporate (big organizations), SMEs (small and medium sized enterprises) and consumers (individual customers). For several banks, corporate group even separates financial and non-financial institutions. For others, especially for

SOCBs, it is important to realize the distinction between state-owned firms (SOEs) and private firms. Foreign banks may have another classification way, which distinguish foreign and domestic companies.

Fundamentally the corporate and SMEs segments are both involved in wholesale banking and commercial lending and therefore, share the same types of products: credit loans, property loans and project finance. The credit loan market has not been as fully developed as other Asian countries' but experienced a soar in recent years. Current lending rates have been reduced quite a lot in comparison with the rates at the beginning of this year. The rates for VND loans range from 12-15% (Ebank Vnexpress 2010) while the rates for USD loans were much lower. Several months ago, when the SBV started to allow negotiated rates for middle- and long-term loans, the VND loan interests were so high at about 17-18%, which naturally hindered businesses to borrow. In contrast, USD loans were set at 6-8% and attracted a lot of debtors. Firms' inability to get capital badly hurt the economy and SBV has to curb deposit rates leading to a decrease in loan rates. (Infotv 2010) Property loans are strictly controlled by banks because the Vietnamese real estate market is very unstable. The incident of real estate bubble in 2008 and the frozen state in 2009 have left a big lesson for banks that generated many property loans in the period. Project finance mostly is granted by large banks to big firms because it requires a large capital base.

Retail banking with individual customers is quite distinguishable from wholesale banking. This is an extremely potential market for the banks because currently only a fraction of the population in this cash economy is accessed to banking products and services. Most of bank users live in big cities. They are customers of personal loans (consumer loans, house loans, car loans, stock investment loans, etc.), credit cards and mortgages.

In general, credit in the last few years has been growing at a considerable rate. The loan ratio to GDP jumped to 93% in 2008 (table 5). Credit growth has been at the average annual rate of 25% over the past 5 years (Tran 2008, 61). This year 2010, the SBV sets a target of 25% increase for credit. The growth till the end of August 2010 was 16.27% compared to 2009 year end (Vneconomy 2010).

4.1.2.3. Threats in the credit market

Vietnam credit market is fairly risky and poses a lot of threats to the credit institutions. The primary problems are irrational division of market, poor lending practices, lack of credit data and high quantity of non-performing loans.

Irrational division of market

In the banking sector, there is still intangible distinction among the markets of SOCBs, JSCBs and foreign banks. Generally, SOCBs are for large corporate and state-owned sector. SOCBs are said to show discrimination towards private businesses when they can only offer unsecured loans to firms with at least two consecutive years of profits (Leung 2009, 49). JSCBs are geared towards SMEs and personal customers because "they are largely locked out of the commercial lending market due to lack of capital" (Tran 2008, 98). Foreign banks, on the other hand, are usually better trusted by multinational companies or foreign-based firms in Vietnam. This division without a doubt affects healthy competition in the market.

Poor lending practices

People say that business in Vietnam is relationship-based and it is indeed true. Even in banking, lending decisions are still greatly influenced by relationships rather than by borrowers' financial health. Professional credit analysis is still on the way of adjustment and perfection. Sometimes profit pressure urges the bank to lend without proper assessment of the credibility of the borrowers. 50% of short term deposits are used to offer medium and long-term loans. This is a bit troublesome. (Tran 2008, 62, 76-77). In addition, many SOEs are now owners of JSCBs and therefore lending to the companies within their group is somehow easier with minor concern about the riskiness (Leung 2009, 48).

Lack of credit data

There is one credit information center under supervision of the SBV called Credit Information Center (CIC). However this bureau only collects the credit history of very large lenders. The banks are reluctant to release data of their customers

because a lot of Vietnamese take that as violation of privacy. It is almost impossible to get access to timely and accurate credit information of individuals or small businesses (Tran 2008, 77&79). Professional credit rating agencies are not common in Vietnam yet.

High quantity of non-performing loans (NPLs)

Non-performing loans are the loans that the interest is overdue and the principal cannot be fully collected. Banks in this case will collect the collaterals used to secure the loans. Non-performing loans were alarming in the aftermath of the Asian crisis in 1997. Most of them came from SOEs who failed to pay their obligations to SOCBs. According to international standards, NPLs accounted for 15-20% of outstanding loans in the state-owned sector. Luckily, JSCBs and foreign banks are exercising better practices of credit risk management and experience a lower rate. (Tran 2008, 78-79).

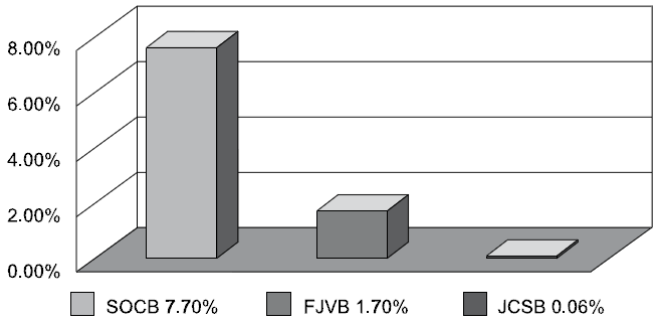

Figure 9. Banking Non-Performing Loans 2005 (Tran 2008, 79)

Recently, the SBV has imposed several new regulations the enable more effective credit risk management. For example, the Decision 493 (2005) requires all financial institutions to adopt international standards of loan classification (Leung 2009, 48). Or it has tightened property lending by demanding banks to check credit quality of loans to the property sector (Tran 2008, 63). In 2000, the government also started to allow commercial banks to establish Asset Management Companies (AMC) to facilitate the collection and disposal of bad debts (Tran 2008, 71).

4.2. The Bank and Its Transaction Office at a Glance

The subject bank of this thesis is a small Vietnamese joint-stock commercial bank. Due to the bank's requirement of secrecy, the bank's name will not be disclosed. As mentioned before, within the JSCBs list, there is further classification into top, second and third tier groups. Our investigated bank belongs to the third tier group with quite small capital base, minor market share, and limited number of products and services. The bank's primary customers are SMEs and individuals.

The bank was founded in 1990 and in fact was one of the first commercial banks in Vietnam. However, due to lack of capital and increasing competition from bigger banks, the bank has not been able to come up and grasp a big market share. Recently, responding to the SBV's recapitalization requirement of all banks to have over VND 3000 billion charter capital, the bank has been approved to upgrade its capital to VND 3500 billion (≈ EUR 140 million). For the first 8 months of 2010, the bank's profit was VND 201 billion, which is 67% of the whole year's target and a 22.56% increase compared to last year. (Vnexpress Ebank 2010)

With an ambition to become a leading financial institution in the market, this bank is currently in the second phase of its restructuring project 2009-2012 that brings the bank closer to international standards. This project includes enhancing financial capacity, developing modern technology, building strong and professional human resources, providing a large spectrum of product packages to satisfy different demands of customers. One example is the introduction of the modern internal credit rating system (built in cooperation with Ernst & Young) on May 1, 2010. (The bank's homepage)

At the moment, the bank has 66 sales points covering major economic areas from the north to the south of Vietnam. Its headquarters locates in Ho Chi Minh City. In the capital city Hanoi, one branch and 17 transaction offices are in operation. The transaction office featured in this work was established in September 2007 and is in Dong Da district in the city center. This is quite a big office compared

with others. It has two primary units (customer service and credit) and employs 11 people (Interview).

4.3. Credit Risk Management at the Bank & the Transaction Office

The aim of this 4.3 Section is to describe the credit risk management procedures in the subject transaction office as well as to analyze those procedures according to the criteria mentioned in the 2.5 part. This analysis is done through secondary data collected on the official website of the subject bank, from the bank's intranet and from the primary data acquired through the personal interviews with two of three employees (one relationship manager and one credit assessment officer), and questionnaires with all three employees in the credit unit of the transaction office.

4.3.1. Overview of Risk Management at the Bank

Risk Management and Control probably is the newest division in the bank's structure. As a result of the restructuring project, risk management and control has emerged to be one independent division at the bank with five units: Risk Management, Asset Valuation, Legal and Compliance, Internal Control, and Debt Collection. All these five units have gained certain achievements and contributed to the stable operation of the bank, especially Legal & Compliance and Internal Control. According to the bank, these two units play a much more active role in the bank's overall operation. Legal & Compliance has been amending and composing tens of internal regulations and procedures as well as have been effective in supporting the Loan Handling unit in collecting bad debts. Internal Control, though newly established in the first quarter of 2009, honorably received compliments from some regions for its support to consolidate and handle difficulties in operation.

Risk Management Unit, based on risk types, is divided into two separate parts: credit and non-credit risk management. Non-credit risks include: liquidity risk, currency risk, interest rate risk, country risk, and operational risk. Even the credit activity alone can very potentially relate to risks other than credit risk. Anyway the division in the Risk Management Unit itself has proved how essential credit risk management is to the bank and how seriously the bank is dealing with it.

As the credit assessment officer emphasizes in the interview, when the bank makes loans, it has to accept the inherent risks. Lending is an extremely risky business. Credit risk arises from all credit products and activities (listed below) that the bank offers to clients. The loans are either in Vietnamese Dong (VND) or USD. However, at the transaction office the financing services are not provided. Whenever a customer needs some financing programs, the office will refer to the bigger branch in the same area.

Personal Banking	Corporate Banking
- Personal installment loan - Home construction/repair loan - Car loan - Valuable paper pledge/ discount loan - Overseas study loan - Personal consumer loan - Home loan - Securities loan - Private household business financing - Small trader financing - Equity loan - Cash advance of stock sale	- Working capital finance - Term loans for fixed asset/project - Co-financing loan - Import/Export finance - Export finance in VND with interest rate of USD - Small & medium enterprise finance program (SMEFP)

Table 6. Credit Products and Services of the Bank (The Bank's Homepage and Interview)

The bank acknowledges that there is still a lot to improve but towards credit risk management, at least it has

- paid special attention to and complied with prudential ratios required by the SBV and by the bank itself
- set up solutions to control and restrict risks: sufficing credit-related policies, diversifying loan portfolio, adopting the internal credit rating system, cautiously treating vulnerable loans (loans for stock and real estate trading, loans secured by stock, loans given in gold to buy houses, etc.),

strengthening collection of outstanding loans and bad debts, giving priority to short-term loans or loans serving import-export, etc.

- re-assessed important credit files on a timely basis

(The Bank's Annual Report 2008-2009)

That is quite a broad picture. So how does credit risk management at the bank look in details? The succeeding sections will give the audience the answer.

4.3.2. Regulatory Credit-Related Policies

As discussed in the former sections, regulatory policies play a fairly important role in reducing risks and enhancing risk management operation. Vietnam is not a member of the Basel Committee on Bank Supervision and therefore, has not adopted Basel Accords yet. However, the State Bank of Vietnam is trying to issue policies that require the banks to direct their operations more and more closely to international standards. Indeed, Vietnamese bank are doing their best in that direction. The SBV's formal legal documents include: Law, Circular, Directive, Decision, Notice, Guideline, etc. For a central bank like SBV, there are numerous supervision aspects of which it is in charge. Regarding credit activity, basically we have provision on lending by credit institutions, requirements on prudential ratios that the banks need to maintain, regulations on the debts classification and provisions against credit loss. Besides, the SBV has regularly updated decisions or guidelines based on the practical situation in the market (See the Law Map in Appendix 2). For example, adjustment on the required reserve ratio, regulations on foreign currency lending, directive on lending to certain industries or business sectors, etc., just to name some. (SBV 2010) For the scope of this thesis, there is not enough time to mention all policies but only to analyze the most basic ones.

4.3.2.1. Provision on lending by credit institutions

On 31.12.2001, the Vietnamese central bank issued the *Decision No. 1627/2001/QD-NHNN* on the provision lending by credit institutions to clients (Vietnam Embassy in the USA 2002). Following it were two amendments 127/2005QD-NHNN on 03.02.2005 and 783/2005/NHNN on 31.05.2010 (The

investigated bank 2009). Recently, *Circular No. 13/2010/TT-NHNN* dated 20.05.2010 also revised the regulations on lending limits.

The fundamental aim of these legislations is to govern Vietnamese dong and foreign currency loans extended by credit institutions to their clients. Among all the articles, several points should really get a remark on.

Definition of credit limit:

The maximum amount of a loan which is maintained within a fixed period as agreed in the credit contract between a credit institution and the client.

Loan interest rate:

This interest is agreed between the credit maker and its customer in accordance with regulations of the SBV. Importantly, the interest rate for overdue debts must be fixed by the credit institution and stated in the credit contract and must not exceed 150% of the interest rate applicable during the loan term.

Lending Decision:

The SBV demand credit institutions to build a process of approving loans and make clear personal or joint responsibility in the stages of loan assessment or approval. It is vital that the loan maker consider the "feasibility and effectiveness of the investment project or plan for production, business and services or the investment project or plan for servicing living conditions and the capacity of the client to repay the loan".

Credit limits:

Fundamentally, the credit institution decides the limits on its own, based on the borrowing requirements of clients and their ability to repay and on its available capital sources.

"The total outstanding loans to a single client **may not exceed fifteen (15) per cent** of the equity of the credit institution, except in cases of loans funded by capital sources entrusted by the Government, by organizations or by individuals. If the capital requirements of a client exceed fifteen (15) per cent of the equity of the credit institution or if a client wishes to raise capital from a number of sources,

credit institutions may enter into a syndicated loan[1] in accordance with regulations of the State Bank." In case a credit provider wants to surpass the 15% limit, the loan has to be approved by the Prime Minister.

"The total outstanding debts and guarantee amounts of a credit institution for a single client must not exceed 25% of its own capital in which the total debts are not over the percentage specified above".

"The total outstanding debts of a credit institution for a group of related clients must not exceed 50% of its own capital, in which the total outstanding debts for a single client must not exceed 15% of its on capital"

A credit institution shall not make unsecured or preferential loans to enterprises that it holds control and follows these rules: total outstanding debts and guarantees for 1 enterprise of this type must not exceed 10%, for a group of enterprises of this type 20%, for affiliated financial leasing companies 5%, of the credit institution's capital.

To prevent inadequate lending practices, a credit institution is required not to provide loans to: (a) its affiliated companies being securities trading businesses; (b) members of the board of management or inspection committee, the general director or deputy general director of the credit institution; (c) staff of the credit institution who carry out loan evaluation and approval; (d) parents, spouses or children of the members of the board of management or inspection committee, the general director or deputy general director. The final group of unpermitted clients is optional for the credit institutions.

(Vietnam Embassy in the USA 2002, Thu vien phap luat 2010)

Decision 1627 and Circular 13 specify very clearly the lending limits and other important provisions on an adequate loan process. They will act as useful guidelines for the credit providers in order to improve the soundness of the lending decisions.

[1] Loan that is provided by several credit institutions to 1 single client

4.3.2.2. Regulations on Classification of Debts and Loss provision

The rules concerning debt classification and loan loss reserve are covered by the *Decision No. 493/2005/QD-NHNN* dated 22.04.2005 and *Decision No. 18/2007/QD-NHNN* issued on 25.04.2007. The former gave banks 3 years to set up their credit classification system which is closer to the international financial reporting standard. The systematic categorization of debts or loans makes it easier for banks to calculate non-performing loans and loss provision. (Leung 2009, 48)

First, Decision 493 expressly defines debt. "Debt includes indebtedness or liability incurred under or in relation to loans, advances, overdrafts, financial leases, discounting or rediscounting of valuable papers, factoring and other forms of credit facility". So in practice, loan is not the only form of debt. There are 2 possible ways (quantitative and qualitative) to classify debts but either way will give 5 categories:

Category 1: standard ("debts that the borrower is able to pay the principal and interest for in a full and timely manner")

Category 2: specially mentioned (overdue debts < 90 days or "debts that the borrower is able to pay the principal and interest for in full but there exists a sign of decreasing payment ability")

Category 3: substandard (overdue debts > 90 and < 180 days or "debts that the borrower is not able to pay the principal and interest for in a timely manner and some loss of principal and interest is possible")

Category 4: doubtful (overdue debts >181 and < 360 or "debts in relation to which the loss of principal and interest is highly probable")

Category 5: loss (overdue debts >360 or "debts that are uncollectible")

(Phillips Fox 2005; Truong & Duong 2005)

The groups above form the basis for calculating the specific loss provision. Loss provision or loss reserve is the second topic of Decision 493. Loss provision is utilized when the borrowers are unable to repay the debt or when the debt falls

into category 5. Two types of loss provision specified in the decision are general and specific provisions. General provisions are the guard against losses inherent in a credit institution's loan portfolio. General provisions are introduced for the first time in Decision 493 and are equal to 0.75% of the total debt classified from category 1 to category 4. (Truong & Duong 2005)

Specific provisions, on the other hand, are established to absorb losses identified for specific loans. The specific reserve ratios for the five categories are 0%, 5%, 20%, 50% and 100% respectively. Decision 493 also introduces the calculation formula for specific loss provision:

$$\mathbf{R = max\ \{0, (A\text{-}C)\}\ x\ r}$$

in which R: a specific amount for loss reserve

A: the value of the asset (i.e., the loan)

C: the value of the collateral (after being discounted by such percentage as set forth in Decision 493 for each type of collateral)

r: ratio for loss provision

Under this formula, the credit provider needs to consider both the loan and the collateral amount. It is essential that collateral is accurately valued.

Generally, decision 493 has set up higher standard for credit risk management with respect to loan loss provision. Despite the complex changes that they have to adopt, proper practices in accordance with this decision will ultimately enhance the credit institutions' operation efficiency.

4.3.2.3. Requirements on Prudential Ratios in Bank Operations

2005 is considered the reform year of the Vietnamese banking rules and the SBV made a considerable move with its new regulations on prudential ratios in operations at credit institutions provided in *Decision No. 457/2005/QD-NHNN* dated 19.04.2005. *Circular No. 13/2010/TT-NHNN* also has a section mentioning the solvency ratios.

Minimum capital adequacy ratio: Credit institutions are demanded to keep a minimum ratio of 8% of their equity over their total (bearing risk) assets. Last May, however, the SBV in the Circular No. 13/2010/TT-NHNN decided to increase the ratio to 9% (1 percentage point higher than Basel II), effective as of 01.10.2010 (Thu vien phap luat 2010). The calculation formula more closely follows the Basel Accord.

Liquidity ratio: It is the responsibility of the credit institutions to set up their own plan to ensure liquidity and solvency. It is advised that they ensure a minimum ratio of 15% between total assets payable[2] on demand and total liabilities and a ratio of 100% between total assets and total liabilities due within seven working days.

Maximum ratio of short-term capital funds used to finance medium and long-term loans: 40% for commercial banks and 30% for other types of credit makers.

Ratio of outstanding loans to mobilized capital[3]: 80% for banks and 85% for non-bank credit institutions. Before and after the grant of credits, other prudential ratios must be maintained.

Limit on capital contribution and share purchase: A credit institution may use maximum 40% of its charter capital and reserve funds to invest but the investment shall not exceed 11% of the invested organization's charter capital or the invested project's value.

(see, e.g. Hoang 2006, Phillips Fox 2005, Thu vien phap luat 2010)

4.3.3. Credit Culture

After a review of the documents that the bank currently has, there are 2 important papers that most suitably form the bank's credit culture: Decision 20/QD-HDQT

[2] Include: cash balance; book value of gold at other funds and at the SBV; positive difference between demand cash deposits + demand gold deposits balance of the bank at other credit institutions and the same of other institutions at the bank; difference between time cash deposits + gold deposits balance of the bank at other credit institutions and the same of other institutions at the bank; book value of bonds, public bonds, treasury bills, bills issued by the SBV; book value of securities and valuable papers in accordance with the SBV's regulations.

[3] Mobilized capital includes: personal demand and time deposits, corporate time deposits, deposit of State Treasury, 25% of corporate demand deposits (not credit institutions), loans provided by domestic organizations or other credit institutions (terms > 3 months), capital mobilized from corporate and individuals by issuing valuable papers

dated 10.02.2010 on credit risk management principle and Decision 235/2009/QD-HDQT dated 30.09.2009 on lending principle.

Top management's commitment and structure

Perhaps, it is more convenient to combine this element with the management structure (belongs to credit discipline). The top management plays a vital part in the credit management structure because they design the policies based on the long term vision of the bank's development and are the highest credit approval authorized persons. Below are the hierarchies of credit organization in the headquarters and in smaller units (branches and transaction offices):

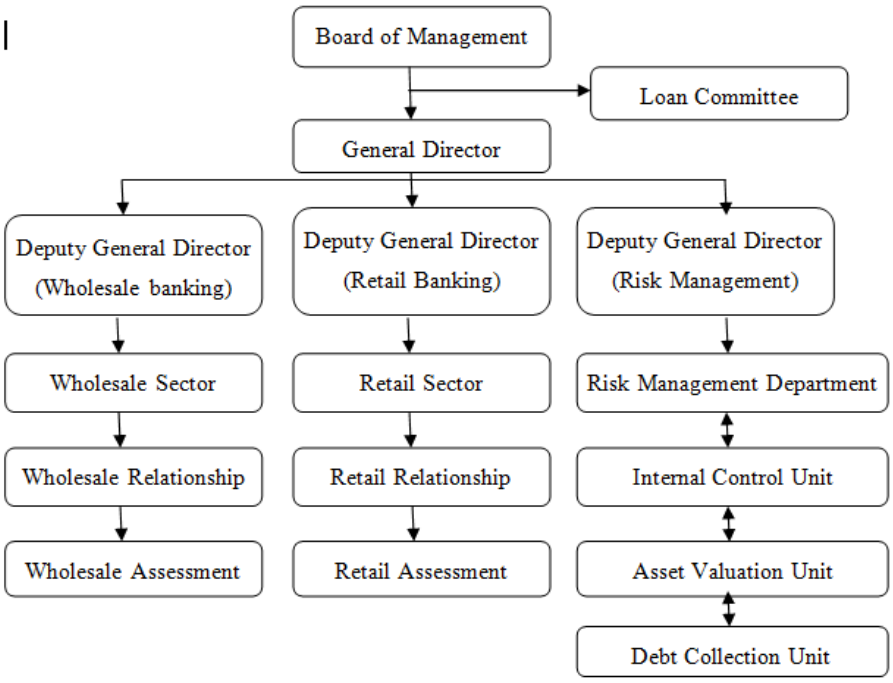

Figure 10. Credit Management Structure at the Headquarters (Adapted from Decision 20/QD-HDQT dated 10.02.2010)

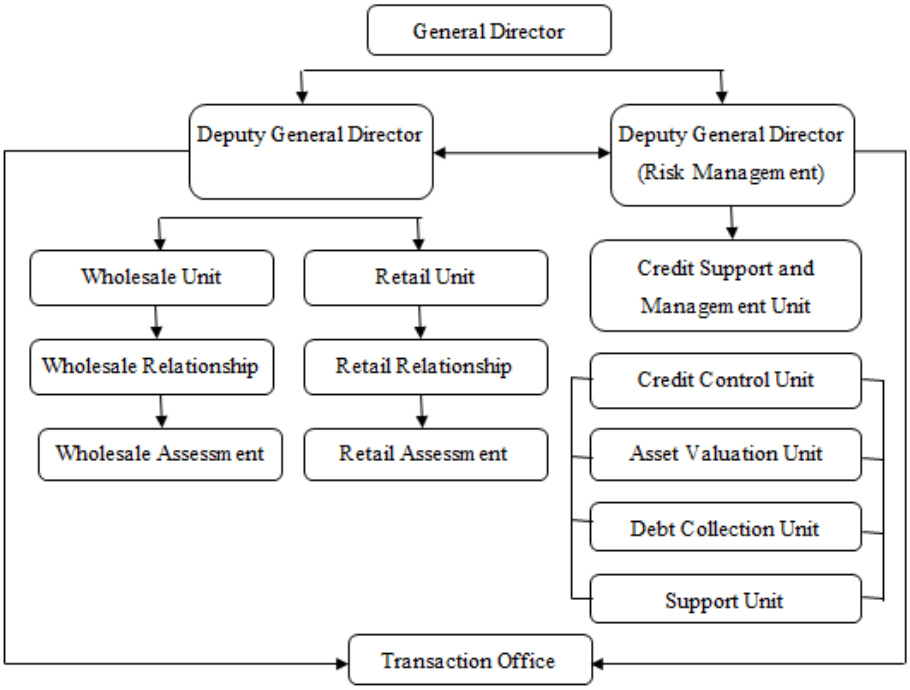

Figure 11. Credit Management Structure at Branches and Transaction Offices (Adapted from Decision 20/QD-HDQT dated 10.02.2010)

Responsibilities of each constituent of the maps above are clarified in the credit risk management principle. At the final section of both decisions, the text confirms that the top managers must adhere to the articles of the decisions.

Credit discipline

Right at the beginning, the Decision 20 maps out the vitality of organized credit risk management and more significantly, the bank's credit risk point of view as well as the aims of this credit risk management principle.

The bank acknowledges that credit activity brings a lot of profit but poses the biggest threat to the bank. Big losses and even worse consequences of decreasing financial strength or damaging reputation are normal outcomes of improper credit risk management. However, credit risk is unavoidable and cannot be totally eliminated. Hence, the bank's credit risk management philosophy is to effectively avoid or minimize potential losses by building a safe and sound credit risk management framework. Credit risk management is mutual responsibility of every member of the institution.

Besides, the credit risk management principle also mentions the essence of a well-organized system of documents with five levels: principles, policies, procedures, regulations and guidelines.

In addition, the internal credit rating system is also introduced with ten different credit grades given to the customer (more details in 4.4.3.4). Each grade is equivalent to a separate customer treatment policy.

In the lending principle, the bank specifies the purposes and type of customers that are not qualified for borrowing. For instance, the loan is used for trading forbidden commodities and services (weapons, nuclear goods, money laundering, etc.) or the borrowers as defined in Circular 13 by the SBV (refer to 4.3.1). The lending limits mentioned in the Circular 13 also appear in the lending and credit risk management principles, especially the significant ratios in lending operation. Some rules on loan terms are also specified: short-term loan (≤ 12 months), medium-term loan (> 12 months and ≤ 60months), and long-term loan (> 60 months). Besides we have eight methods of granting loans in article 14 of the Decision 235/2009/QD-HDQT.

Loan monitor and collection is another important point in the bank's credit culture. It appears in both decisions but will be discussed further in the part concerning the lending procedures.

Finally, the bank's rights and obligations (accountability) conclude the lending principle (article 25 and 26). They are stated clearly but it seems that the rights far exceed the obligations. The bank should maintain a balance on this because it has to prove it is respectful towards customers.

Priority-based incentives

There is no information on the incentives or the motivations to make loans in the bank.

Risk-managed lines of business

Managing credit risk using credit portfolios is a new and increasingly popular trend. This is a separate big part in the credit risk management principle. The bank has built a basis to organize its borrowers into credit portfolios with 11 criteria:

- Customer type (financial institutions, corporates, small enterprises, individuals

- Business sector
- Credit product
- Borrower's financial strength
- Collateral type
- Ratio of loan amount/collateral value
- Loan currency and term
- Repayment source
- Distribution channel
- Loan size
- Geographical region

Consistent and candid communication

It seems that the bank cares more about bottom-up than top-down communication when it spends a whole article in the credit risk management principle for the regulation on reporting. The reports on credit activity must contain several critical points: the total outstanding loan amount, total outstanding loans in each currency type, credit growth rate, overdue debts, and bad debts (or non-performing loans), the maintained credit portfolios, important ratios.

Standards used in assessing loan requests for each loan type

The standards can be found easily in article 7 of the lending principle (Decision 235/2009/QD-HDQT), which states that "The bank only considers and approves loans for the borrowers that satisfy five conditions".

First, the client must have civil legal capacity and capacity for civil acts and bears civil responsibility as stipulated by law. Particularly there are more details for individuals and organizations.

Second, the client must have a lawful purpose for utilizing the loan capital.

Third, the client must have the financial capacity to ensure repayment of the loan within the time-limit undertaken.

Forth, he/she must have an investment project or plan for production, business and services which is feasible and effective, or it must have an investment project or a feasible plan to service living conditions which complies with the law.

Lastly, the borrower must comply with the regulations of the Government and the guidelines of the State Bank of Vietnam on security for loans.

These conditions are just a repeat of the clauses in article 7 of the SBV's Decision 1627-2001-QD-NHNN.

Approval authority and limits

The approval authority is as below:

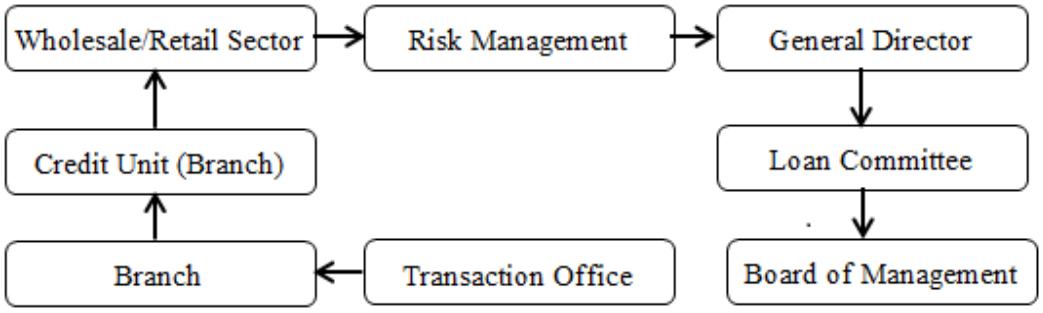

Figure 12. Approval Authority (Ascending Direction)

Noticeably, the bank specifies the principles of credit approval, most important of which are:

- Grant decision is finalized if and only if 100% members of the Board of Management, Loan Committee, and Credit Unit at the branch/transaction office agree.

- Credit assessment officer cannot be the credit applicant.

- The approving person cannot exercise his authority when:

+ He has bloodline relationship with the individual borrower or is an investor/member of the board of directors/general director/ or chief accountant of the organization borrower.

+ He has bloodline relationship with the credit assessment officer.

- The loan renewal terms must be determined by persons/units at higher position than that of the approving person. If the approving person is General Director or above, he/she/the unit will decide the renewal terms and conditions.

Approval limits are not fixed but fluctuate due to the changing market environment and the bank's self-conditions. Hence, they are not provided in the general credit culture. In the later part of this work, the limits will be discussed.

4.3.4. Internal Credit Policies

As explained clearly in the theoretical framework, along with external policies published by the central bank, it is vital that a bank develops and maintains its own legal documents that are effective throughout the group. Also, more importantly, the bank in reality must rigorously adhere its operation to the clauses and articles in those documents.

Important internal policies directly related to credit risk and credit risk management are:

- Lending procedures
- Loan supervision regulation
- Collateral guidance
- Decision on approval limits
- Internal credit rating system

4.3.4.1. Lending Procedures and Loan Supervision Regulation

'Lending Procedures' is a significant document which designs the bank's complete process of loan handling from receiving application to full collection. As defined by the bank in the Decision concerning this issue (Decision 835A/2009/QD-TGD dated 12.10.2009), "lending procedures are a series of activities in certain order with the purpose of providing credit service to the bank's client, from the very first credit application (proposal) until when the client completely fulfills his/her obligation to the bank". (The subject bank, 2009) Theoretically, all branches and transaction offices must ensure their operation conformity with the written procedures. In practice, nonetheless, they are quite flexible in loan approval and occasionally the decisions are made case by case. (Interview) But first, let us have a look at the content of the lending procedures based on the points listed in the criteria in 2.5. The summary map of the steps clarified in the document can be found in Appendix 1.

Lending authority and limits for the credit approvers: This is not stated in the lending procedures but separate documents. The content will be discussed later in this work.

Duties of each credit person or sub-unit

A number of persons at different levels in the organization are directly associated with credit activity. This bank has relationship manager, credit assessment officer, credit management and support officer, head of credit unit (of the transaction office), head of the transaction office, branch director or branch and regional credit unit, deputy general director, staffs of risk management department at the headquarters, collection officer, general director, board of management and the accountant/treasury person.

The map in Appendix 1 just depicts the most essential jobs that each person takes. In addition to the map, their main duties, responsibilities and specific performance requirements are clearly defined in the fourth chapter of the Decision 835A. Each step in the procedure is related to one or several people at different positions. It is a must that every credit person understands his/her role and thus, carries out the right duties.

Assessment and approval process

These two aspects are highly interrelated. The credit grant decision or approval must be based on the assessment, which is not a reality without the credit proposal containing essential information and documents of the client prepared by the RM. The credit evaluation and approval is an organized process carried out in the 2nd – 7th steps of the procedures and involves a number of people in the organization. The flow chart of the credit assessment and approval procedure adapted from the Decision 835A can be found on the next page.

The loan can only be approved if the credit proposal contains all mentioned information and the information has to be assessed 2 or 3 times (depending on the limits): first by the credit assessment officer, second by Head or Deputy Head of the wholesale/retail sector, and third by the credit re-assessment officer, approved by the chief risk manager. The information that a borrower has to provide has been listed in the credit assessment officer's specific task.

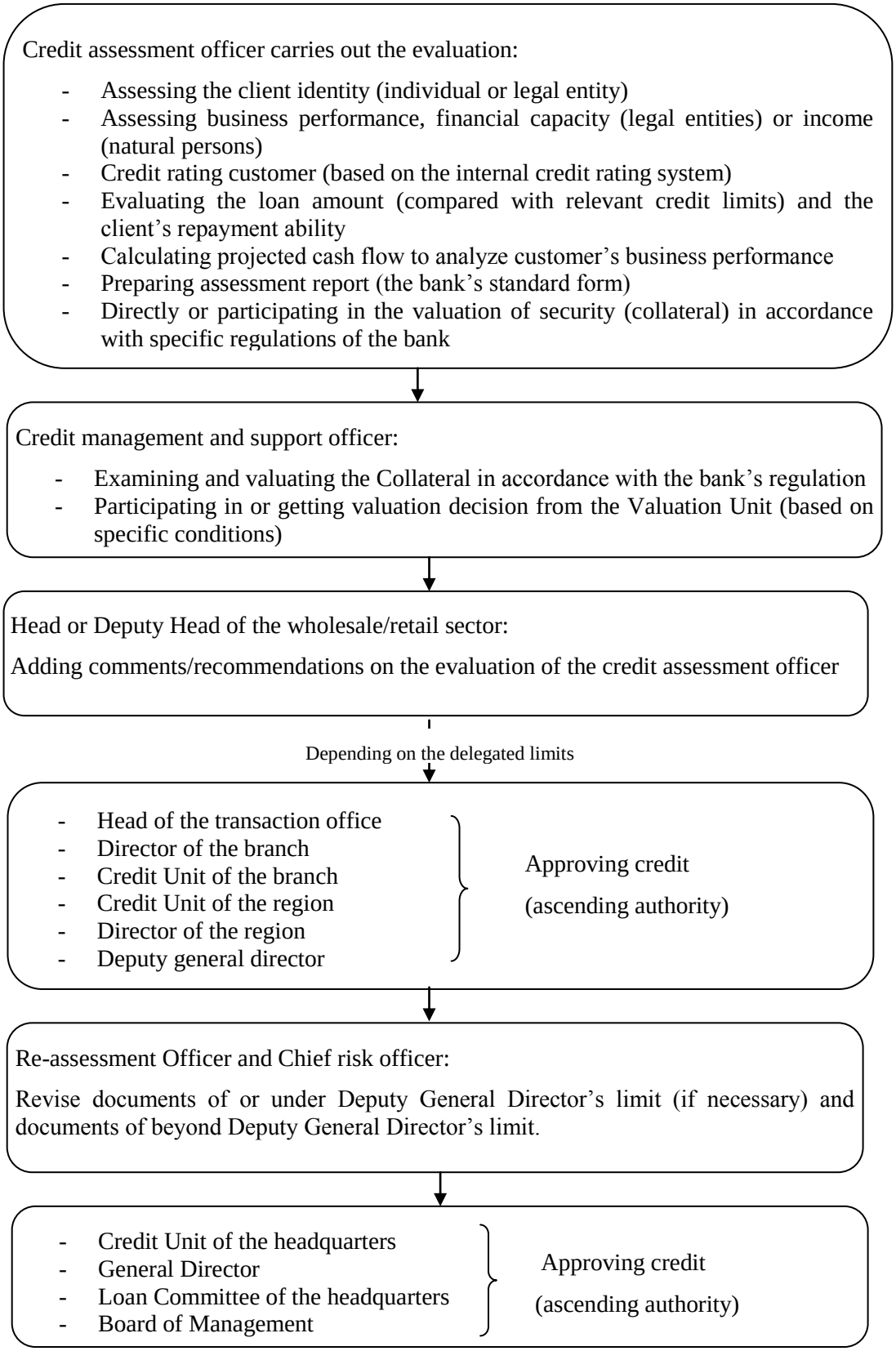

Figure 13. Flow Chart of the Credit Assessment and Approval (Adapted from the Decision 835A/2009/QD-TGD dated 12.10.2009)

Regulation on a complete set of loan documents

Every loan at the bank is only granted if the bank possess all required documents specified in the 5th section of the Decision 835A as below:

	Legal Entities	Individual Customers
Identity and financial capacity documents	a, First time clients: - Company registration, business license… - Director/Deputy Director/Chief Accountant…assigning decision - Organization's charter - Financial management regulation (if any) - Financial statements of 2 consecutive years and 9 latest months - Memorandum delegating an authorized person to do transactions with the bank - Documents related to the company's business operations b, Existing/Old customers: - Financial statements of 9 latest months: balance sheet, cash flow, receivables, payables, inventory, loans from other credit institutions, etc. - Update of any changes	- Personal identity card - Household register - Confirmation of employer (if any) - Marriage status registration - Business registration - Income statement
Credit limit documents (if the client possesses an authorized	- Credit limit application - Credit limit contract (mutually signed) - Collateral documents for the limit - Co-sponsor or outsourcing	Not applicable for personal customers

limit)	documents (if any)	
Loan demand documents	- Loan application - Business plan/investment project and related papers - Contract/ invoice/ documents of sales - Collateral documents proving legal possession of the pledged assets	- Loan application - Business plan and related papers - Collateral documents proving legal possession of the pledged assets
Loan arrangements documents	- Collateral for the loans: + Pledge contracts guaranteed by the third party's assets + Documents of examination and valuation of the Collateral + Filing sheet for the bank - Approved credit assessment report - Approved loan release paper - Credit contract/ Credit limit contract - Collection-related documents	- Collateral for the loans: + Pledge contracts guaranteed by the third party's assets + Documents of examination and valuation of the Collateral + Filing sheet for the bank - Approved credit assessment report - Credit contract - Collection-related documents

Table 7. Documents Required for a Loan Application (Adapted from the Decision No. 835A/2009/QD-TGD dated 12.10.2009)

Loan Pricing and Maturities

This does not belong to lending procedures but is governed by a separate policy. The loan price means the interest plus all associated fees the bank charged to ensure adequate returns. The loan prices and maturities, in fact, are changed all the time to adapt to the new business conditions. Especially, since the SBV allows negotiated interest on medium- and long-term loans, the prices change almost every month.

The respondents at the interview have revealed that at this bank, the loan interest is usually calculated by adding a certain mark-up to the interest of deposit at the same maturity. Frequently that mark-up is from 3-4%.

Post-approval supervision and collection control

These important tasks are done in the step 11-13 of the lending procedure. The loan supervision is even separately regulated in Decision 984/08/QD-TGD dated December 9th 2008.

The supervision starts with detailed guidelines on filing and management of credit documents. Both payment and credit units will be in charge of maintaining the documents, either originals or copies. The documents have already been listed in the preceding text in the complete set of documents.

The supervision in this bank is mainly responsibility of the credit assessment officer and credit management & support officer. First, they always have to remind the borrowers to pay the interest at least 3 days before the installment due date. If a client fails to do that, the credit officers must give the reminder on the next working day. Second, the credit staffs watch closely the client's business operations or account balance and ensure the loan is properly used.

Third, every third month, the officers have to re-examine all the loans, business activities and financial capacity of each customer portfolio (based on the business sector, loan amounts or loan terms, etc.) to timely notice unfavorable changes. They must pay special attention to changes that may affect the credit quality, repayment ability or collateral value. If that is the case, immediately report to the management so that the bank can effectively collect the debts. These re-evaluations are made depending on information that the client and the relationship manager provide. The evaluation must be objective, honest and accurate.

Finally, 30 days before the last due date, the credit officers must remind the customer of the date and to discover any further needs. If yes, then instruct the customer fill in necessary documents. If no, recheck if the client has fulfilled his obligations and return the collateral to the client if he has.

Overdue debts and recovery

Overdue debts collection or recovery is the last step in the procedures. This must be cooperative effort of the credit assessment officer, credit management and support officer and the collection officer of the nearest branch or headquarters.

The credit officers must understand the reasons behind the client's inability to repay the loan and propose suitable solutions such as extending the due date or collecting the pledged Collateral. Any essential legal actions should also be planned. If the Collateral has to be collected, then make projections to trade it. The credit assessment officer must make record of this type of clients and downgrade them in the rating system.

Processing time

The processing time is mentioned in the lending procedures. For example, five days are allowed from the day of receiving loan application to the day all necessary documents are submitted to the approval bodies. The approving persons have two days to make their decision. If the loan amount is big that exceeds Deputy General Director's authority, three days can be given for the re-assessment. After that, only one day is allowed for the approval. All documents must be completed and the decision is announced to the customer on the following day of the approval's day. Then the money will be available right on the day the customer agrees to the terms and conditions and signs all documents.

4.3.4.2. Collateral Guidance

In the bank that this thesis is studying about, regarding collaterals, there are two basic types of loans: loans guaranteed by collaterals and loans not requiring collaterals. They are governed by two different policies: Decision 933/08/QD-TGD dated 18.11.2008 on receiving and managing collaterals and Decision 72/QD-HDQT dated 16.09.2008 on lending without collaterals. The two decisions are applicable to non-credit institutions.

According to Decision 72, besides the compulsory conditions regulated in the Lending provision of Decision 235/2009/QD-HDQT, clients need to satisfy the followings in order to borrow without collaterals:

- The loan's purpose is not stock trading

- The client's grade in the risk rating system must not be lower that A

- The credit history shows no extended or overdue debts

- The bank has been familiar with the client and the client's business is profitable in at least 2 nearest consecutive years. The financial statements are clear and transparent

- The ratio of total outstanding loans (in all credit institutions)/owner's equity is equal to or bigger than 3.

- Individual clients must have household register in the area where the bank has operations

- The clients must have at least 1 year using the bank's credit products and services and during the relationship period, the credit history is good.

- If the client's rating is downgraded when the bank revises the rating system, the client must pledge the loan by collaterals.

In addition, there are limits for lending without collateral, such as the total outstanding loans without collaterals must not exceed 10% of the total outstanding loans; or the maximum value of loans without collaterals for a single client: 2% of the charter capital for a personal client and 5% of the charter capital for a corporate.

Last but not least, only the Board of Management can decide to approve loans without collaterals. Very occasionally, the Board can grant the approval authority to the General Director.

Decision 933, on the other hand, sets guidelines on receiving and managing collaterals. Chapter 2 of the decision gives very detailed description of the assets that can be accepted as collaterals and the relevant ratios of the loan amount/value of the collateral (next page).

Chapter 3 then deals with collateral receiving and management procedures. The collateral is valid only when documentation procedures are completed. A collateral contract (in the standard form) is signed with all required signatures: borrower, pledger/mortgager and the bank. The signors must have full legal authority to represent the parties.

	Collaterals			Maximum ratio (loan
1	Land using right & land-related assets			70%
2	Equipment/Machinery		100% brand new	70%
			Used	60%
3	Inventory/Raw Materials			50%
4	Vehicles	Used for pledging	100% brand new	70%
			Used	50%
		Used for mortgaging	100% brand new	80%
			Used	60%
5	Valuable papers issued by the bank			100%
6	Valuable papers issued by other credit institutions			0%
7	Stock listed on the stock exchange			50%
8	Stock traded on the OTC market			40%
9	Receivables			50%
10	Future Assets[4]	Land using right & land-related assets		70%
		Equipment/Machinery		70%
		Inventory/Raw Materials		50%
		Vehicles		50%
		Stock listed on the stock exchange		50%
		Stock traded on the OTC market		30%

Table 8. Collateral Types and Maximum Ratios of Loan Amount/Collateral Values (Adapted from Decision 933/08/QD-TGD dated 18.11.2008)

As mentioned before, collateral can either be pledged or mortgaged. In the former case, the borrower or the pledger still keeps his collateral and the lender only holds the documents. In the latter case, nonetheless, the lender possesses the mortgaged assets during the loan term. Therefore, the bank has two different approaches to manage the pledged or mortgaged assets. The procedures include maintaining the collateral, collateral receiving, collateral release (wholly or partly release). There are also instructions on the monitoring of the collaterals. For

[4] Movable or immovable assets that, at the moment the contract is signed, have not been physically completed or in possession of the borrowers but will be completed or possessed by the borrowers at some time in the future.

instance, every 6 months the credit officers must examine the borrower's business activities and the collateral quality. Regarding the mortgaged assets, the examination must be carried out every 3 months. In case of unfavorable changes to the bank's benefit, the officers must report immediately to the managers so that the bank may have timely actions to minimize losses.

4.3.4.3. Lending limits

First, the lending limits are regulated by the Decision 1627/2001/QD-NHNN and the Circular No. 13/2010/TT-NHNN.

Second, the limits are based on the maximum ratios specified in chapter 2 of Decision 933/08/QD-TGD on receiving and managing collaterals.

Third, the approval limits established by the Board of Management for loans without collaterals as below:

Authorized Person(s)	Approval limits (in VND and equivalent in Euros)	
	Personal Customers	Legal Entities
Board of Management (BoM)	>20 billion (770,000 EUR)	>100 billion (3,845,000 EUR)
Chairman of the BoM	>15 billion (577,000 EUR) and ≤20 billion (770,000 EUR)	>75 billion (2,885,000 EUR) and ≤100 billion (3,845,000 EUR)
Loan Committee	>2 billion (77,000 EUR) and ≤15 billion (577,000 EUR)	>10 billion (385,000 EUR) and ≤75 billion (2,885,000 EUR)
General Director	≤2 billion (77,000 EUR)	≤10 billion (385,000 EUR)

Table 9. Approval Limits for Loans without Collaterals (Adapted from Decision 332/2009/QD-HDQT)

These limits are subject to change from time to time depending on the business and market conditions.

4.3.4.4. Internal Credit Rating System

This is not the first time the internal credit rating system is mentioned in this thesis. The internal credit rating system is a sophisticated credit risk measurement tool used in lending organizations worldwide. The investigated bank is heading close to international standards and developing an internal credit rating system is an important step in the process. The system has been introduced very recently and became effective as of 01.05.2010. The particular credit rating software is called SYMBOLS. Since it is very new, a number of documents have been published internally to all employees at the bank:

- Decision 22/QD-HDQT on internal credit rating regulation dated 10.02.2010

- Decision 238/2010/QD-TGD on guidelines of using the internal credit rating system

- User guide on the credit rating system software SYMBOLS

It is unrealistic to go through every detail of about 500 pages but several fundamental points should be brought up here.

First borrowers are divided into four groups: financial institutions, corporates, small family enterprises and individuals. For each group, a certain measurement method is applied. Basically, the credit officer gives grades to each financial or non-financial criterion and the final score is the sum of all given grades. The final scores will group the borrowers into categories (descending order):

- Standard: AAA, AA, A

- Specially mentioned: BBB, BB, B

- Sub-standard: CCC, CC

- Doubtful: C

- Loss: D.

The calculations are clarified in both Decision 22 and Decision 238. The criteria used for grading are listed carefully for each group in chapter 2 of Decision 22. In the four big groups, we have also have sub-groups. For instance, financial institutions include: commercial banks, securities firms, other financial service

providers. Corporates are first classified by the business sectors (20), and then by the company sizes (4).

In the SYMBOLS user guide, each and every input step is described with pictures so that the credit staffs can have faster and better understanding of their tasks.

The Internal control unit will be responsible for maintaining a complete rating list of all existing customers. Every month the member offices have to send a file containing the newest customer ratings (latest 5 first days of the following month).

Responsibilities of four bodies (lending units, internal control, risk management department, and IT department) associated to the internal credit rating system are also specified.

The policies on the internal credit rating system seem to be the most detailed with a very clear and understandable structure. These guidelines have formed a firm basis for the debt classification and loan loss provision at the bank. The policy on debt classification and loan loss provision is regulated in Decision 21/2010/QD-HDQT dated 10.02.2010. Fundamentally the decision's content is similar to the SBV's Decision No. 493/2005/QD-NHNN and Decision No. 18/2007/QD-NHNN.

4.3.5. Credit Personnel and Organization

4.3.5.1. Credit Staffs

As mentioned somewhere above, credit granting is an activity that involves a number of staffs inside the bank from the lowest to the top level. In the investigated transaction office, there are three credit employees: two relationship managers and one credit assessment officer. Below is the summary of the staff's answers to the questionnaire:

	RM 1	RM 2	Credit assessment
Age	26	23	35
Education	Bachelor's in Economics	Bachelor's in Banking, currently master's in Finance	Bachelor's in Business Administration
Experience in credit activity	1-5 years (3 years)	Under 1 year	Over 10 years
Understanding of risk management policies	Quite understand	Quite understand	Understand clearly
Opinion on the importance of credit risk management	Very important	Very important	Very important
Relation between the job and credit risk management	Grade 4 (most related)	Grade 3	Grade 4
Frequency of credit-related staff training participation	Over 3 months – 6 months	Over 3 months – 6 months	Over 3 months – 6 months
Self-evaluation of training effectiveness	Quite effective	Little effective	Quite effective
Contribution to changes in policies	Seldom	Seldom	Seldom
Hope for more contribution chances	Yes	Yes	Yes
Notification of the changes or a new policy	Regularly	Sometimes	Sometimes

Table 10. Summary of Respondents Answers to the Questionnaire

Several conclusions can be drawn from the answers of the respondents:

- There are only three credit officers in the transaction office and technically their responsibilities are limited to: borrower's due diligence, credit documents assessment and post-approval follow-up. Collateral examination, credit re-assessment and certainly credit approval are out of their control.

- The credit assessment officer is the most experienced in the field while the two relationship managers do not possess much experience. One relationship manager

confesses that their inexperience may sometimes result in small mistakes that affect the quality of the credit activity. Losses resulting from inexperience do exist in operation.

- Although all three officers at the transaction office acknowledge the importance of credit risk management and the close association between their job and credit risk management, only one has a thorough understanding of the risk management policies towards credit products and services. The others assure that all the documentation requirements and reporting procedures are strictly followed but still, they are skeptical about their knowledge of the potential risks arising and the associated policies to address those risks.

- It is a good thing that the staff training is conducted in a reasonable fixed time interval but the training's quality is questionable. Two of the credit staffs agree that the effectiveness of the training sessions is so so and the other even feels they are not really of great help.

- It seems that in this bank a centralized management approach is in use because all three respondents expressed that they hardly contribute to the policy changes. All of three persons would like to be given opportunities to speak up their opinions.

- In case there are new policies or adjustments to the existing regulations, notice to the employees seems not to come on time always.

4.3.5.2. Control Activities

As shown in the flow chart of credit assessment and approval as well as the credit management and approval structure, numerous persons stand at the management positions and manage credit activities. The highest should be the Board of Management. Following are the Loan committee, General Director, Risk Management Department at the headquarters, Deputy General Director, etc.

The internal audit and internal control units in the bank conduct inspections at each and every transaction office every third or sixth months or when unusual signals arise (e.g. bad debts increase dramatically). One issue is that most internal control officers or auditors are more or less unprofessional in credit operations.

What they do is mainly to guarantee compliance with the guidelines or procedures and especially proper documentation. Do the credit officers keep a complete set of documents? Are they filed properly? Is any signature missing? They can hardly tell if the credit quality of this loan is declining or this client is having trouble in repaying the interest.

4.3.5.3. Information flows within the organization

Smooth, accurate and timely information flow is the basic element that affects the bank's credit risk management capacity. (Greuning & Bratanovic 2009, 188)

The information flows inside the bank consist of both bottom-up and top-down directions. Top-down means notification of new policies, decisions or any modifications in the existing formal documents from the top management to the lower level employees. According to the interview and questionnaire, the staffs in the transaction office often receive notice or announcements through email, fax, and hard-copy documents or through the Intranet. Hard-copies are limited to save cost. Usually, it is the employees' responsibility to check out new updates on the Intranet. The bank does not really give reminders. Only when the change is really urgent, the managers may come to the transaction office and directly discuss with the credit officers. When asked if the information he gets is complete, accurate and on time, the credit assessment officer refused to answer. Not all employees have the habit of checking the Intranet regularly. The interviewees did not really want to comment on this issue and ignored it when I asked if there have been any sad consequences of late or incomplete notice.

But at least regarding the bottom-up flow, the officers strongly emphasize that they always follow the reporting rules defined in the credit principles or lending procedures. Reports are made weekly, monthly or quarterly; sometimes immediately if unexpected incidents occur (must be labeled 'urgent'). Reports are either in form of hard copies (papers) or soft copies (emails). The reports are sent to the specialized credit department in the nearest branch and then the headquarters so that any risk measurements can be done.

4.3.6. Credit Practices and Performance

This part will deal mainly with how the state bank's regulations and the bank's directives are practically followed and implemented and how the bank and the transaction office are performing. The performance evaluation is based on several calculated ratios, the amount of non-performing loans and the loan loss provision.

4.3.6.1. Compliance with the regulatory policies

As introduced earlier, the State Bank of Vietnam has issued several legislations concerning credit activity, typical of which are: the provision on lending by credit institutions (Decision No. 1627/2001/QD-NHNN and Circular No. 13/2010/TT-NHNN), regulation on classification of debts and loss provision (Decision No. 493/2005/QD-NHNN and Decision No. 18/2007/QD-NHNN). The Decision No. 457/2005/QD-NHNN governing the prudential ratios in bank operations in fact addresses all types of risk. This decision is still critically taken into consideration as credit risk in the subject bank has been identified as the biggest threat and the bank's credit risk management will succeed only when the bank possesses a sound financial capacity.

However big and powerful the bank is in the Vietnamese market, its operation has to comply with the regulations set up by the central bank. The banks indeed have no other choice because the SBV frequently and thoroughly conducts inspection into their operations.

In the featured bank, the verbal contents of Decision 1627, Circular 13, Decision 493 and Decision 18 are repeated again and again in several internal formal documents (already specified in the 'Internal Credit Policies' part). Other quantitative requirements like the debt classification into five categories, loss provision amounts or prudential ratios will be discussed in the 4.3.6.2.

4.3.6.2. Compliance with the bank's policies

Credit culture

According to the two credit officers interviewed, it is confirmed that they are aware of the two documents forming the bank's credit culture and keep the copies in their computer for reference whenever they need. However, it is unrealistic to

force them to remember all 100 pages of the two decisions so primarily they remember in heart the very basic points directly related to their daily duties. For example, obligations of the customer relationship section or credit assessment section where they belong to; the portfolio criteria because they have to make the portfolio themselves; the specific customer treatment based on their credit grades; post-approval monitor and certainly, reporting rules – who they have to report to.

Lending Procedures

In the investigated transaction office, there are three employees: two relationship managers and one credit assessment officer. Some people place more emphasis on the duties of the credit assessment officer or the credit approval in evaluating credit risk management performance but in practice relationship managers carry equally heavy responsibility. Relationship managers are not involved in the assessment but the data they collect are of supreme importance because they form the basis for an accurate client evaluation. The information collected is presented in standard templates that the bank develops for different type of customers (corporate or individual).

According to the relationship manager that was interviewed, the documents that the borrowers must provide the bank really vary depending on: (i) personal or corporate customer, (ii) new or existing/old client, (iii) the nature of the business. The lending procedures concern about the former two and the latter was added by one interviewee. An example of the business nature's influence on documents is if the borrower is an import/export firm, the export/import license must be presented. Besides, relationship managers will take references from the Credit Information Center (CIC) of the SBV. This CIC contains data of both companies and individuals and all banks can have access to the center's database. However, as stated in the previous part, CIC covers only a fraction of the number of bank's customers and primarily the banks develop their own credibility evaluation. The interviewed relationship manager, however, shared a tip: She may know the customers from her colleagues at other banks. A firm, for instance, frequently borrows from different banks and if it has bad reputation or some suspicious

movements at other banks, our relationship manager may find a way to reject the loan.

Loan pricing is exercised by the higher level persons in the credit organization and is not responsibility of the credit officer at the transaction office. What these people do is to ensure the loan interests and terms are properly recommended to customers.

As mentioned before, the credit assessment officer is also in charge of monitoring the loan repayment progress and the credit or the collateral quality. Quarterly he has to re-examine the loans and the client's business activity in accordance with Decision 984/08/QD-TGD. These re-examinations must be carried out smartly so that the bank can grasp information without hurting the client's trust or pride. The relationship manager, on the other hand, regularly contacts her clients (in a bank a relationship manager handles a group of clients and is responsible for that group only). The main purpose of these contacts is to remind the client of the interest repayment due date but the relationship manager tries to disguise them as a way to ask after the client and reinforce the relationships.

Debt collection normally falls into the authority of other credit officers in the branch or the headquarters. Yet the credit assessment officer and the relationship manager can be of great help because they are able to provide the client's full information record or give advice on the client's personal characteristics. The borrower will usually collaborate when he deals with someone he already knows. That is the respondents' personal experience.

When asked if all credit applications are processed in accordance with the lending procedures, an interviewee replies "Procedures are established for us to follow (smile) but of course we have to be flexible to high-profile customers. These are often big customer with a long-term relationship with the bank. Also the policies are still in perfection process so fragments are unavoidable. Losses occur but we try to keep them as low as possible". The relationship manager assures me that the flexibility is within an acceptable limit.

In addition, to improve customer service, the bank is trying to speed up the credit grant process. If the borrower provides sufficient documents, it takes three days to

complete a personal loan application and seven days are given for a corporate loan request.

Collateral Acceptance

In Vietnam, most lending decisions are based on collateral. At the level of a transaction office, the credit officers only make contracts and send reports regarding the collaterals to their direct manager. Valuation of the collaterals is conducted by specialist persons in the branch or the headquarters. But once the collateral has been valuated, the post-valuation procedures such as finalizing the loan amount, completing the collateral contract and filing the documents are done by the credit staffs at the transaction office.

Internal Credit Rating System

This is where the relationship manager's role is emphasized. The RM does not calculate the result on his own. That is the software's job. SYMBOLs is very new software that was launched in May 2010. But the software automatically gives results based on the RM's input. It is vital that the RM remains objective in grading the borrowers. A small mistake can result in a different risk grade and consequently, affect the loan decision in the later phase.

Clients of below BBB grade are not qualified to borrow. It is too early to evaluate the helpfulness of SYMBOLs in credit risk management but to some extent, it has reduced the workload for the credit officers.

Policy Review

As far as the respondents know, the big policies are often reviewed annually but the revision of the smaller regulations is done in a shorter interval. Only when the central bank issues new regulations or the market requires an urgent change are the policies brought up for analysis and modification.

4.3.6.3. Credit Performance Statistics

This section will deal with the bank's actual operation results with regards to the credit activity. Particularly, some numbers and calculations of debt classification, loss provision, non-performing loans and prudential ratios will be presented at both levels: the bank and the transaction office (TO). All the amounts below are in

million VND. Most of the statistics are from two latest years 2008 and 2009. The aim of these calculations is to examine the bank operation's compliance with the laws (both external and internal) and the credit performance, not to predict the trend. Therefore, two years' results are sufficient for our analysis. The red-highlighted figures are alarming and will be explained in the analysis part.

Debt classification

The central bank's provision on lending (Decision 493/2005 and 18/2007) specifies five debt categories based on the debt quality. But our bank also categorizes the debts on the maturity term, types of customers and business sector basis. Yet the latter two will not be our focus.

		2009	**2008**	**2007**
Debt Quality	Standard	8,096,064	5,946,387	8,844,373
	Special mentioned	44,137	110,086	40,086
	Sub-standard	7,558	51,172	9,841
	Doubtful	7,477	36,091	8,413
	Loss	75,648	31,668	9,653
Maturity	Short-term	5,352,348	3,159,593	5,808,469
	Medium-term	1,184,183	1,586,540	1,757,820
	Long-term	1,694,353	1,429,271	1,346,077

Table 11. Debt Types at the Bank (Adapted from Annual Report 2008, 2009)

The transaction office, however, does not provide the results in that way. It only specifies the figures of ongoing and overdue debts. Because it was opened in late 2007, the business results are produced for 2008 and 2009 only.

		2009	**2008**
Ongoing Debts	Short-term	29,345	12,934
	Medium- and Long-term	10,002	6,758
Overdue Debts		5,500	5,600

Table 12. Debt Types at the Transaction Office (Adapted from the Transaction Office's Balance Sheet 2008, 2009)

Loan Loss Provision

In banking business generally, loan loss provision is indispensable in the financial statements. For our bank, loan loss provision regulation always appears in the annual report as a repeat of the regulatory policies. Again, the numbers of the transaction office are not as detailed as those of the bank.

	General Provision		**Specific Provision**		**Total Provision**	
	2009	2008	2009	2008	2009	2008
Standard	50,622	40,306	0	0	50,622	40,306
Special mentioned	334	892	1,519	1,759	1,853	2,651
Sub-standard	43	345	342	2,478	385	2,823
Doubtful	119	299	2,369	6,582	2,488	6,881
Loss	0	0	24,348	12,506	24,348	12,506
Total	**51,118**	**41,842**	**28,578**	**23,325**	**79,696**	**65,167**

Table 13. Loan Loss Provision of the Bank (Adapted from Annual Report 2008, 2009)

Unfortunately, for 2007 we only have the total data: General Provision – **25,204** million VND and Specific Provision – **10,129** million VND.

	General Provision	**Specific Provision**
2009	146	1559
2008	5	419

Table 14. Loan Loss Provision of the Transaction Office (Adapted from the Transaction Office's Balance Sheet 2008, 2009)

Non-performing Loans (NPLs)

Non-performing loans or bad debts situation is expressed by the ratio of non-performing loans/total outstanding loans. The ratios at the bank and the transaction office are below:

	2009	**2008**
Bank	1.93%	1.10%
Transaction Office	12.25%	22.13%

Table 15. Ratio of NPLs/Total Outstanding Loans (Adapted from the Bank's Annual Report and the Transaction Office's Balance Sheet 2008, 2009)

Prudential Ratios

Certain ratios can only be calculated for the bank because the constituents of the formula are not available at the transaction office levels. For example, the assets payable on demand include placements at other credit institutions or placements from other credit institutions. These are always presented for the whole bank in the annual reports but not in the reports of a single transaction office.

Capital Adequacy Ratio (CAR) = 15.6% (2009) (Infotv 2010). The minimum requirement is 9%.

Liquidity ratio (minimum 15%)

2009	2008	2007
33.35 %	20.93 %	19.35 %

Table 16. Liquidity Ratios (Adapted from the Bank's Annual Report 2008, 2009)

Medium- and long-term loans/short-term capital ratio (maximum 40%)

	2009		2008		2007
	Bank	TO	Bank	TO	Bank
Total of medium- and long- term loans	2,878,536	10,001.8	3,015,811	6,757.5	3,103,897
Short-term capital	15,492,000	39,631.4	5,933,000	15,405.9	8,570,000
Ratio	18.58 %	25.24 %	50.83 %	43.86 %	36.22 %

Table 17. Medium- and Long-term Loans/Short-term Capital Ratio (Adapted from the Bank's Annual Report and the TO's Balance Sheet 2008, 2009)

Outstanding loans/mobilized capital (maximum 80%)

2008: 79.5% and 2009: 41.08% (Annual Report 2008, 2009)

Capital contribution and share purchase (maximum 40%)

	2009	2008	2007
Total Investments	127,585	213,389	1,395,699
Charter Capital + Funds	2,192,060	2,036,042	1,315,487
Ratio	**5.82 %**	**10.48 %**	**106.10 %**

Table 18. Capital Contribution and Share Purchase (Adapted from the Bank's Annual Report 2008, 2009)

Other Ratios:

Some other ratios are provided by the bank in its annual report. The category five loans mean the loans belonging to the ‘loss’ group and require 100% loan loss provision.

	2009	**2008**	**2007**
Credit Growth	+7%	-31,7%	
Category 5 loans/Total outstanding loans	0.92%	0.51%	0.10%

Table 19. Other Ratios (Adapted from the Bank's Annual Report 2008, 2009)

In summary, the whole 4.3 section has just been dedicated to giving the readers a detailed picture of the credit risk management policies and implementation at both the bank and the transaction office level. On the one hand, all polices and most of the operation ratios concern the bank as a whole. On the other hand, when it comes to actual day-to-day decisions and operation, the practices in the transaction office will be at the focus. This picture is the result of a hard-work and much-effort research. More significantly, the picture is the basis for the analysis and evaluation that comes along in the next section.

4.4. Credit Risk Management Analysis

A research analysis is the next to the final step in a research process, which assists the researcher in drawing his/her conclusions on the topic. In this thesis, the author would like to separate the findings and analysis parts for a comprehensible structure and clearer understanding. The foundations of this analysis are (i) the criteria established in 2.5 section and (ii) the findings from secondary data and primary data (face-to-face interview and questionnaire) in the immediate preceding section. This analysis will not flow in the exact way that the findings were presented but discuss three separate aspects: credit conditions (market and central bank’s supervision), formal internal credit regulations, and credit practices.

4.4.1. Vietnamese Credit Conditions

Credit conditions form the broad context where the credit risk management implementation of our featured bank and transaction office lies in. The conditions here are meant to be the characteristics of the Vietnamese credit market as well as the legal framework created by the State Bank of Vietnam.

The Vietnamese credit market poses several obstacles to the success of credit risk management not only in our particular bank but also in other credit institutions. First, 38 joint-stock commercial banks have a small market share of only 17% and thus, must compete fiercely to attract customers, especially in lending. Understandably they should have more favorable offers such as more attractive interest rate or simpler and faster lending procedures. The latter very potentially becomes a risk if simpler procedures mean less cautious actions. Second, small JSCBs like our bank primarily make loans to SMEs and individuals, whose credit record and other important data are not always available. The central bank's credit information center is not enough and credit rating private service has not been developed in the country. It is tough for our bank and other JSCBs to gather information of their varied customers and check their trustworthiness and financial strength. Third, the business culture in Vietnam is relationship based and banking business is not an exception. The bigger the clients, the tighter relationships the bank must maintain. The terms and conditions underneath that firm relationship are complicated. As a service provider, the bank always tries to satisfy its 'high-profile' customers and certainly, credit activity can be one aspect. In practice, there are certain customers that are always prioritized in borrowing: lower interest rate, simpler documentation, faster loan arrangements, etc. Fourth, the irrational division of market poses a threat to sound credit risk management too. When the market for the bank is limited, the loan portfolio is narrowed and concentrates on one big group of customers sharing similar characteristics. The fundamental philosophy of risk management is diversification. Any concentration will increase the risks.

Any organization must act within a regulatory limit. Regarding banking institutions, that limit is set up and supervised by the central bank. In Vietnam, each and every bank's activities must be in conformity with the State Bank of Vietnam's legal rules. The SBV is trying to improve the legal framework on credit risk management with a number of decrees, circulars and decisions revised annually and to make closer movements towards international standards. The issued formal regulations are quite good but the well-timed element is still largely criticized. Sometimes, the central bank very slowly responds to the fast changing

market. Some other times, the sudden modifications without sufficient preparation time cause serious troubles to the commercial bank. An example of this is *Circular No. 13/2010/TT-NHNN* effective as of 01.10.2010, which received a lot of censure from the banks, the market and even the government. The SBV was first very conservative of this circular but eventually made the adjustment 2 days before the effective date. The integrity of the SBV's inspectors also attracts a lot of controversy. All those features can affect the soundness of credit risk management in the bank.

4.4.2. Formal Internal Credit Regulations

This part will take into consideration both credit culture and credit policies to see whether they satisfy the listed points in the 2.5 section.

It is essential to affirm that our subject bank does have its credit culture defined in formally written directives. The directives are available for everyone's access on the bank's intranet. First of all, the credit culture complies strictly with the compulsory regulations. Second, the bank's credit culture contains the elements that a well-defined culture should have. It describes the credit management structure very well and in a professional model way. From this model it is easy to know the units/departments and their direct subordinates. It also shows the close relationships and mutual interactions of four units in the risk management division. Another good point is the bank manages its customers through portfolios. It is more efficient and cost-saving to handle a group of customers with similar characteristics. These clear criteria are good but it is advisable that the bank articulates a bit more, for instance giving some explanations of what the criteria means or naming different sub-groups in each criteria. From my own point of view, the approval authority is the most satisfactory part in our bank's credit culture. It is extremely transparent with a structure map of ascending approval delegation, principles of approval and the authorization hierarchy. However, two critical drawbacks of this credit culture are no priority-based incentives and no risk appetite. These two are related. The incentives here mean the ranking priorities in granting credits or which features are more preferred than others. Then customers with the more favorable priorities will get the loans first. Risk

appetite defines an organization's attitude and tolerance towards risk and obviously influence the way the organization manages risk. "Banks must tightly define risk appetite and ensure that it is consistent with strategy" (HSBC 2010). One can argue that the bank's opinions on credit risk management demonstrate its risk appetite but there should definitely be more.

With respect to the credit policies, the bank should be complimented for a quite good system of solemn documents concerning credit operations. At least the most important documents are there. The lending procedures and loan supervision regulation are concise but sufficient in details. Especially the lending procedures are presented in 13 steps, each of which specifies the related people's tasks and responsibilities and quality requirements. Especially the assessment and approval process shows its significance when it takes six steps in the procedures and is explained very thoroughly. It is a very good idea that the bank places its emphasis on post-approval follow-up by issuing a separate document on the loan monitor procedures. This bank's collateral regulation is comprehensive and clear. It is good that the bank makes cautious moves in taking collaterals. In Vietnam, collateral seems to be the only reliable source to secure a loan but still risks arise from the very collateral value. Especially when valuation expertise has not been professional enough, it is crucial that the bank maintains a safe attitude towards collateral. Regarding the lending limits, it is somehow hard to decide whether those limits are safe or not. The point is the bank in reality complies with the set-up limits. The amounts governed by the SBV have been determined by banking experts and strategists so we believe in them and have little room to discuss here. The ratios of the loan amount/collateral value are quite safe with a maximum of 70%. Then the bank remains a 30% safety margin. What really counts here is the proper valuation of the collaterals. The approval limits for loans without collateral seem to closely respond to the bank's limited size and charter capital. Even the General Director can only grant maximum approximately €77,000 to individuals and €385,000 to businesses. Regulations and guidelines on the internal credit rating system are excellent. They not only give the staffs an idea of the system, how it works, how the credit rankings are calculated but also instruct the staffs on the reality doings by images of every single step from the software.

Nevertheless, there are several flaws that the bank should think about. First, as I notice, the way the bank numbers the documents is somehow inconsistent. Sometimes the year appears in the recorded names, sometimes not. This is small mistake but proper and consistent recording would help the bank employees in searching for the documents. Second, the loan pricing seems to be blurred as the bank does not mention it anywhere in the significant documents. Indeed loan pricing is a vital concept that must be recognized by all credit staffs as it directly affects the bank's profitability. Third, although the policies at the bank are reviewed, there are no formal guidelines on the review intervals or who will take care of this review.

4.4.3. Credit Practices

While the previous two sections are more concerned about the bank, this section will put the transaction office at emphasis.

For any practices to achieve their success, the human resource is always at the heart because practices are exercised by the humans, or in other words, the employees at the organization. Adequate staffing is a must for healthy credit risk management. From the findings of the questionnaire to all three credit staffs in the transaction office, it seems that the staffing at the transaction office is fairly troublesome. Two out of three employees are not experienced enough. The people are a little confused about risks. What they know is only how many documents they must collect for a loan application and who to report to but not why they have to do that. As noticed, people usually tend to possess a more cautious attitude towards things that they understand clearly. The quality of staff training is also a big question. It is worthless and very costly if the bank only cares about the quantity and ignores the quality of the training. Furthermore, it is not advisable in the long run that the bank continues to neglect the employees at lower level in contributing to the policy makings because these three officers have very important direct interaction with customers. At the bank's level, the utilization of the Board of Management or the Loan committee for very big exposure approval proves the bank's caution towards granting large loans. It is most of the time safer to have a group of people than to have only one person making decision. Lending

is indeed the most widespread function throughout the bank and information flows must be efficient to monitor conformity to established policies. The reporting system inside the bank and the transaction office is well-regulated by the reporting rules in the credit risk management principle and well-practiced by all three credit officers in the office. In contrast, it seems that the top-down information flow has not been really efficient, timely and accurate.

To remind the readers, credit practices were analyzed in three main prospects: compliance with the regulatory policies, compliance with the bank's policies and credit performance. The first one is out of question because that is obligatory for all banks. But the other two need some discussion. As we said, the credit culture is a very general legislation that guides other sub-documents so it is more about theory and principles. In reality, the employees at the lower level will care more about practical things like: how to complete a credit proposal or how to assess this client's information. So it is quite understandable that the credit officers at the transaction office know but not so thoroughly about the credit culture.

Fundamentally the credit officers at the transaction office follow what is stated in the lending procedures, especially the documentation or the credit rating. But I am a bit troubled over the tip on assessing customer's credibility based upon the information provided by the relationship manager's friends. Is it trustworthy? What if the friend tries to deceive the RM and take advantage of the RM's customer knowledge to attract that very customer to the friend's bank? Also, the favorable treatment of high-profile customers, though helps the bank to reinforce its important business bonds and relationships, is to some extent dangerous with respect to credit risk management. The fear of losing close and high-valued customers sometimes urges the credit officers to loosen the requirements and therefore results in unpredictable consequences. The 'acceptable limit' that the RM mentioned is hard to define and quantify. From a long-term perspective, the inadequate Internal Audit and Internal Control Unit will make the bank suffer. As stated in the annual reports, the bank is still on the way of professionalizing the internal auditors and internal control officers so that in addition to their expert knowledge, credit know-how will be in their possession too. That is a good direction towards the better risk management in the future.

Finally, the credit risk management practice assessment would be incomplete if it ignores the quantitative performance indicators. The bank has been succeeded in maintaining the proportion of category 5 (loss) loans to total outstanding loans at below 1% (table 20). Category 5 loans are only potential losses while non-performing loans are actual ones. Sadly, the NPLs percentages (Table 16) relative to the total outstanding loans amount are higher than those of category 5 loans: 1.93% (2009) and 1.10% (2008). Even worse, the transaction office's NPLs proportions are much more troublesome: 12.25% (2009) and 22.13% (2008). These alarming figures should call for urgent action from the transaction office to critically revise their practices to find out where the troubles come from.

For the loan loss provision, the bank has both general and specific provision. As specified in Decision No. 493/2005/QD-NHNN, the general provision is equal to minimum 0.75% the value of total debts classified from category 1-4. But as I calculate based on the figures in table 12 and 14, the ratios are below:

	2009	**2008**	**2007**
Total outstanding loans	8,230,884	6,175,404	8,912,366
General provision	51,118	41,842	28,578
Ratio	**0.62%**	**0.68%**	**0.32%**

Table 20. General Provision Ratios (Adapted from the Bank's Annual Report 2008, 2009)

It is awkward that all three ratios for 3 years are under 0.75%. The bank must work on this to see why they had the lower than standard percentages. Specific loss provision measurement takes into account the value of the collateral and the ratios for loss provision of five debt categories. This is where the valuation officer can accidentally or purposefully manipulate his assessment of the collateral value. If the collateral amount is overestimated, the smaller specific loss provision may lead to decreasing risk tolerance capacity.

Last year (2009), all the prudential ratios, both of the bank and the transaction office, comply with the SBV's mandatory regulations. Especially, the capital adequacy ratio of the bank is ranked high among all Vietnamese commercial banks (Vnexpress Ebank 2010). The liquidity ratio increased greatly from 2007 to 2008 and now stands at more than double of the minimum requirement (33.35%

to 15%). The use of short-term mobilized capital funds to finance medium- and long-term loans was adequate in 2009 and 2007 but that of 2008 was not. This indicates inconsistencies in the bank's operation. Credit risk management principle has not been properly followed.

5. CONCLUSIONS

The preceding 100 pages introduced credit risk management operations at a Vietnamese joint-stock commercial bank's transaction office. The paper begins with some research background information that triggers the author's interest in this specific field. Climbing concerns about the banking system's credit risk management soundness at both worldwide and nationwide stage are main reasons behind this interesting topic selection. What the researcher wants to figure out after the research has been clearly defined with four research questions relevant to four research objectives.

In brief, risk is inherent in every daily activity but can always be managed. Banking organizations are natural risk takers. Banking risks can be grouped into three groups: financial risks (related to the financial position or financing forms), operational risks (related to internal inadequacies) and environmental risks (associated with external changes). Credit risk arises when the borrowing party fails to repay the debts (partly or wholly) to the lending party. Credit risk belongs to financial risk category and is one of the biggest risks in banking business as lending is core to any banking services. The question of credit risk management has continuously been studied about and improved. Banks usually handle credit risk with a well-established credit culture showing their attitudes towards credit risk, a structured credit organization and firm personnel base, and a comprehensive set of policies governing credit activities in the whole group. However, one had better not ignore the impacts of the credit market on a bank's credit risk management. Besides the conditions in the market that may favor or hinder credit risk management development, regulatory environment created by the central bank also has its significant role. Introducing theories to the audience, however, is not the final aim of this thesis. What the research truly cares about is to use those theories as the foundation for the evaluation of the effectiveness of the credit risk management actual implementation based on the established benchmarks.

The thesis has gone through those theoretical concepts to lead the readers to a much more practical section of the factual practices in the bank. Our subject bank

is exposed to all types of risks in the banking business. Risk management is a separate function in the bank's organization structure and plays a growingly significant role within the bank's activities. As a small joint-stock commercial bank in the market, the bank faces many credit risk management difficulties, such as increasing competitive pressure due to irrational division of market, poor relationship-based lending practices, and lack of credit information and history. The State Bank of Vietnam, as the central bank and the national regulator, has been quite active in standardizing credit risk management framework in the banking sector with several legislations like provision on lending by credit institutions governing vital lending limits, regulations on classification of debts and loss provision and requirements on prudential ratios in bank operations. Nonetheless, the efficiency of the central bank supervision is still questionable. From the bank's side, it has developed its own credit culture, issued a lot of documents regarding credit operations, and organized the credit staffs in a hierarchy. The analysis part has given the readers a deep assessment of the bank's credit risk management practices.

In summary, there are both good points that are appreciated and areas that need improvements. This paper will conclude with some constructive suggestions for the bank and for future research.

5.1. Recommendations for the bank

For the scope of a bachelor's thesis, recommendations for the big credit market or for the central bank's management would be impractical. What we students care about belongs to a much more microeconomic level of a single bank and its transaction office. Theoretically, it is compulsory to conform to stated regulations. Practically, the activities can sometimes slightly deviate from the standards. Although the transaction office is just one in 66 business operation points, its actions may have impact on the bank's reputation or the customers' behavior and trust. Therefore, it is important to conduct proper practices from the level of the smallest transaction office to the headquarters.

5.1.1. For the formal documents

It is significant that the bank defines priority-based and incentives and risk appetite in separate sections of its credit culture. The risk appetite is a must because it shows the bank's risk tolerance and guides other credit actions. Loan pricing rules should be specified in a formal document too. Even the pricing is adjusted from time to time; the bank should speak out several rigid rules and promise to follow them. For instance, at least pricing on loan must factor in the cost of capital and liquidity, ensure positive profit. And the bank had better state its pricing targets such as return on risk assets or risk adjusted return on capital for different customer types (individuals, commercial, credit institutions, etc.)

Some official guidelines on how the policy review process is conducted should be developed by the bank. Especially, policy review must take the employees' ideas into consideration. It not only improves the practical factor of the policies but also enhances employees' satisfaction. The staffs will work with a better attitude if they feel their contribution is appreciated.

5.1.2. For the staffs

The staff training quality must be critically revised. The bank should dig out whether the little effectiveness is due to the employees' own perception or due to the bank's implementation. If it is the latter case, it must be improved on the bank's accord.

Internal control's expertise in credit know-how should continue to develop. The bank had better number their documents in a scientific and consistent way.

For the transaction office, the three lending officers must be critical and proactive towards improving their experience. They cannot blame the unfavorable economic situation in 2008 for the big non-performing loans amounts in the two consecutive years (2008, 2009). Subjective reasons must have existed. They should find out why and where the troubles come from, who are responsible for those mistakes. The officers must learn from those mistakes and improve their expertise.

The relationship managers should be really careful in taking advice from their friends on the customers' credibility. Moreover, they must be conservative

towards strict lending procedures. This actually should be taken care of by the bank first and then instructed to other member operation offices. The bank should carefully design criteria for classifying customers into different 'treatment' levels. Priority should be restricted to very reliable clients and must be reviewed regularly. In general, each lending officer should practice common sense and good judgment.

When the credit staffs state that they do not believe the training sessions are of great support in their career, they must think if it is owing to their lack of enthusiasm. If the answer is yes, they must definitely change their attitudes, because the training indeed will help them gain knowledge and experience.

The credit staffs in the transaction office should be proactive in influencing the top-down information flow by suggesting some reminders from the manager, for instance. They should also familiarize themselves with updating news from the Intranet.

5.1.3. For the practices

For the bank, firstly it should always be alert to any change in the market and the regulatory environment so that it will impose timely responses to those changes.

Despite the prejudice that small joint-stock commercial banks serve SMEs and personal clients, the bank should be aggressive to new target segments (bigger corporates, other financial institutions, etc.) to diversify its loan portfolios and hence, reduce the risk by limiting the concentration on only one or two customer groups. In order to have excellent portfolio management, it is vital that the bank develops a detailed system of criteria beyond the 11 criteria mentioned in the credit risk management principle. The criteria, sub-groups of each criterion must be rational and accessible to all credit staffs because they are the ones segmenting customers into portfolios.

A sustainable and reliable credit database is recommended for the bank. Besides relying on the central bank's credit information center, the bank must have data on its own for immediate and quicker use when needed. This database's input should be done in a timely basis (e.g. weekly) so that the bank can keep good record of

all customers. Any changes in the customer's information or credit quality should be updated at once in the system.

The fact that the general provision proportion is under 0.75% of total amount of category 1-4 loans and that the non-performing loans percentage is even higher than the category 5 loan percentage should be thoroughly investigated. The use of short-term capital to finance medium- and long-term loans, although has been improved last year, should always be put an eye on.

In addition to traditional credit risk management tools, the bank should really think about more modern approaches like utilizing credit derivatives. Credit derivative market is still in its infancy but if every bank is more active in trading, the market will soon blossom.

Last but not least, credit risk management needs to be integrated among all functional departments of the bank, especially among the credit, the risk management and the internal control units.

5.2. Recommendations for Further Studies

Before suggesting for potential additional research, it is good time to turn back to the beginning of the story when we discussed the opinions of Ardrey, Perryer, Keane & Stockport (2009) on joint-stock commercial bank's credit risk management difficulties. It is true that the banks are facing problems of limited experience in risk management procedures; lack of accurate, reliable and complete data for decision making; challenging economic and natural environment and (to some extent) non-transparent legal and regulatory environment. But this thesis will fight against the other obstacles like poorly developed accounting, reporting and bank supervision guidelines or little capital for protection against risks. As presented here and there in the empirical part, both the central bank and the investigated bank have been active in improving formal policy database on credit risk management. Significantly, along with the tendency of moving towards international standards (Basel II), the State Bank of Vietnam and our bank are regulating the prudential ratios (including capital adequacy ratios and other numerate lending limits) quite well. The deviations may come from the different time of research (2001-2008 versus 2010). Very potentially, future

research may again release different results from this research owing to the continuous changes of a developing banking system. Hopefully, the following suggestions for further studies will be of a little help to those interested in the Vietnamese banks' credit risk management or general credit risk management.

The limited time and scope prevent this thesis from considering the credit risk management from a more advanced quantitative point of view with a lot of financial complex formulas, credit models and metrics. Future research should really take this into consideration.

As mentioned in 2.5, the evaluation criteria were established by this thesis author. Additional studies on improving this set of criteria to make them standard should be valuable, too.

This research study, as well as a lot of books, focuses the credit risk management practices on the lending activity only while in reality, credit risk is exposed in other services like international payments through letter or credit or financing programs. Further research on credit risk management in these services will be extremely valuable to the banks.

Another interesting aspect is the adoption of credit derivatives in managing credit risk. This is a new concept in some areas of the world. It would be great to see the analysis and applications of successful credit derivative cases, or the reasons behind the failures of other cases.

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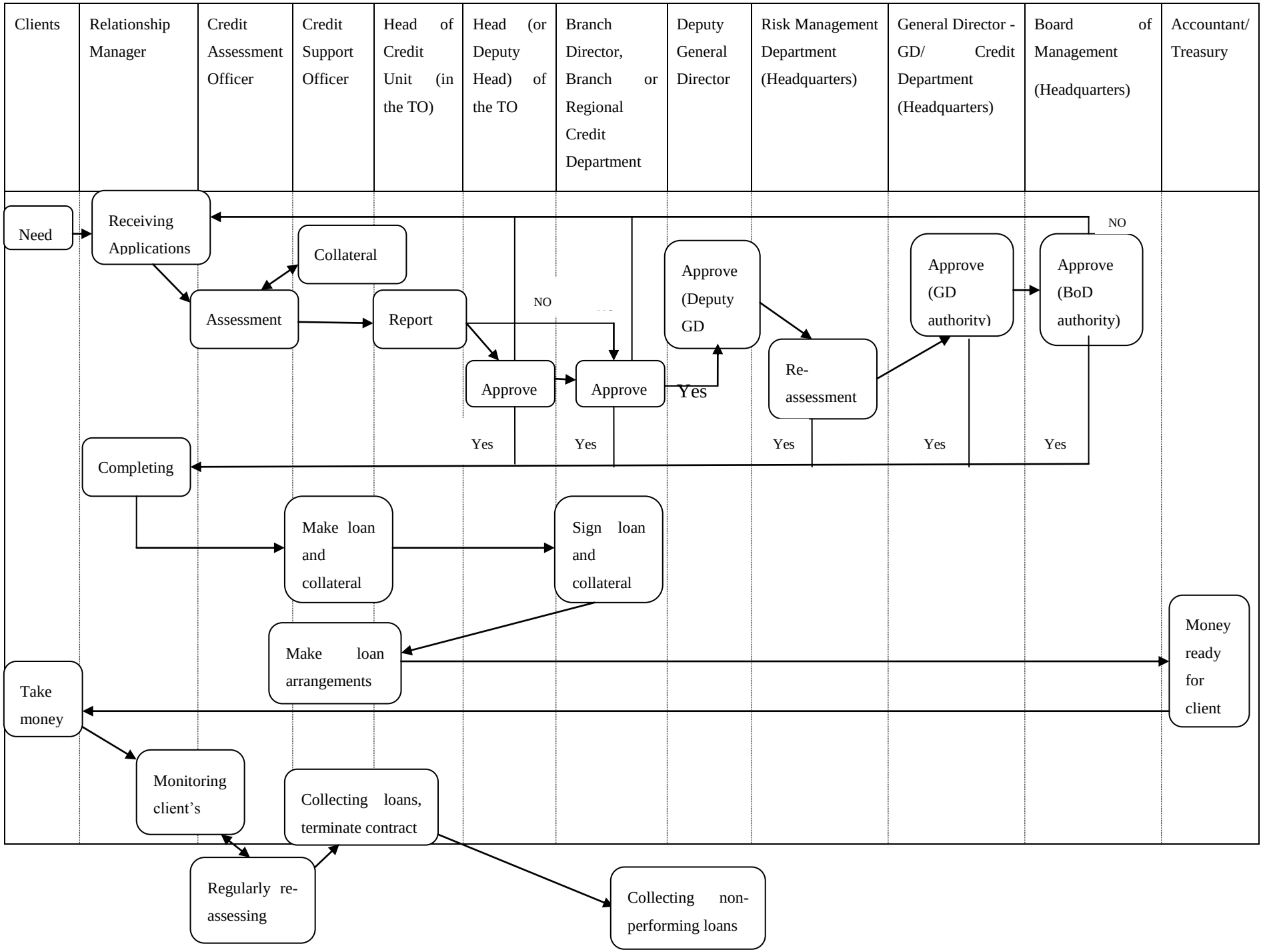
41. Interviews at the case transaction office in Hanoi of HD Bank (Vietnam):

    Mr. A. Credit Assessment Officer. (28.08.2010)

    Ms. B. Relationship Manager. (28.08.2010)

APPENDIX 1

Figure 14. Maps of Lending Procedures at the Bank



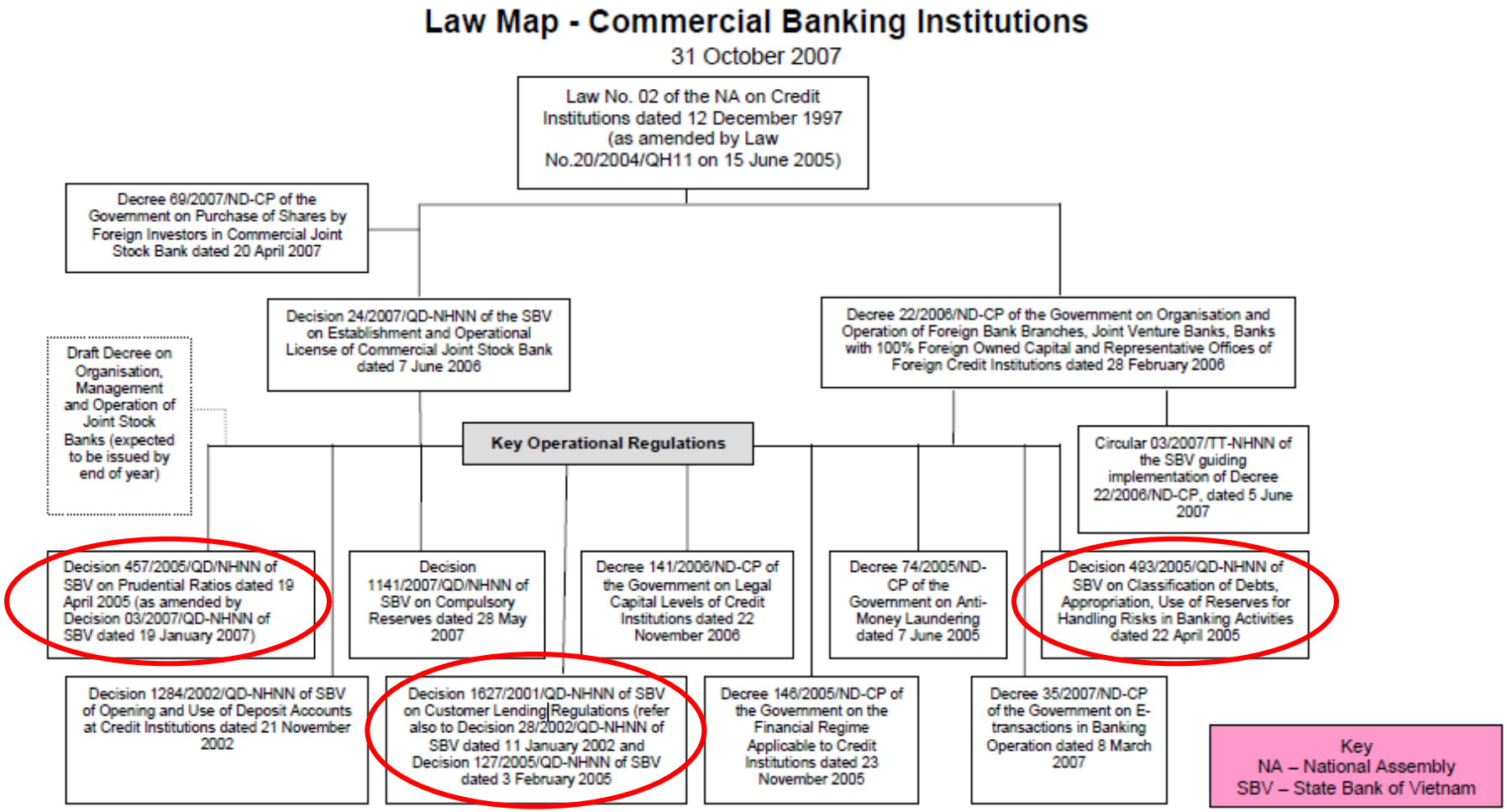


Figure 15. Law Map - Commercial Banking Institutions (Allens Arthur Robinson 2007)

INTERVIEW

This interview's content is confidential and serves the purpose of collecting data for the final thesis. The researcher guarantees not to disclose the bank's and the respondents' identities in the work.

General Questions

1. Credit service is a traditional and key service in every bank. What are the credit services that your bank is offering?
2. At this transaction office, what kind of credit services that the customers have access to?
3. In your opinion, what types of risks exist in those services?

Questions related to credit risk management implantation in the transaction office

1. Do you know about your bank's credit culture? How much do you understand it? Does it contain the points that an effective culture should have as listed in 2.4.1?
2. What are the formal documents related to credit and credit risk management that the bank has published?

- Lending Activity
- Other credit activities

3. In practice, do you strictly follow procedures stated in the documents? How is the authority of your transaction office? What is the general processing time (from credit application to disbursement)?
4. Is there any client categorization? What are the criteria for that categorization? Are there any limits to certain group of clients? (industry, loyalty, etc.)
5. Could you please tell in details about the bank's internal credit rating system? In your opinion, is it helpful to your bank's credit risk management?
6. What do you think of the role of internal control in credit risk management in your bank? Is internal control conducted on a timely basis?

7. Are the policies and procedures constantly reviewed to adjust to the new conditions? Usually on what basis? Please give an example of the most recent change?
8. How are the credit staffs in the transaction office notified of new policies or any modifications? Are the notifications timely and complete? Was there any loss resulting from inaccurate notification?
9. How frequently are update reports made to the management persons? In what form are the reports? Is the report content much related to risks or risk management?

Questions on the transaction office's business performance

1. Did you ever have to loosen credit approval standards due to profit pressure?
2. Is there any group of customers that are more favored than others? Who are they?
3. How is bad debt and loan loss provision in the transaction office? What type of customers is most likely to generate bad debts?
4. How often the business results are critically reviewed?

Thank you for your great contribution!

QUESTIONNAIRE

This questionnaire's content is confidential and serves the purpose of collecting data for the final thesis. The researcher guarantees not to disclose the respondents' identities in the work.

Instruction: Please fill in the blank or circle your answers

1. Your current position at the transaction office is …….
2. Your main duties are ……
3. Your major at university is:
   - ✓ Banking, with Credit specialty
   - ✓ Banking in general
   - ✓ Finance
   - ✓ Others. (Please specify……)
4. Your experience in credit field:
   - ✓ Under 1 year
   - ✓ 1 – 5 years
   - ✓ Over 5 years – 10 years
   - ✓ Over 10 years
5. How do you evaluate your understanding of risk management policies towards the bank's credit products and services?
   - ✓ Grade 1: I don't know any
   - ✓ Grade 2: I know very little
   - ✓ Grade 3: I quite understand
   - ✓ Grade 4: I understand clearly
6. What do you think of the importance of credit risk management in your bank?
   - ✓ Grade 1: Not important
   - ✓ Grade 2: Not so important
   - ✓ Grade 3: Quite important
   - ✓ Grade 4: Very important

7. What grade do you give for the relation between your job and credit risk management? (1: least related, 4: most related)

   1 2 3 4

8. How often do you participate in credit-related staff training?
   - ✓ Under 3 months
   - ✓ Over 3 months – 6 months
   - ✓ Over 6 months – 1 year
   - ✓ Over 1 year
9. How do you evaluate the effectiveness of the training courses?
   - ✓ Grade 1: Not effective at all
   - ✓ Grade 2: Little effective
   - ✓ Grade 3: Effective
   - ✓ Grade 4: Very effective
10. Does the bank call for your opinions whenever there is an adjustment to the policies associated to credit or credit risk management?
    - ✓ Never
    - ✓ Seldom
    - ✓ Sometimes
    - ✓ Regularly
11. Do you hope for more opportunities to raise your voice?

    Yes No

12. When there is a change or new policy, are you notified on time and accurately?
    - ✓ Seldom
    - ✓ Sometimes
    - ✓ Regularly

Thank you for your participation!