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Qredits

''Controlling employee performance with a direct effect on the achievement of the organizational objective.''

Master Thesis

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Preface

This Master Thesis is the final product for receiving the Master of Science degree in Business Administration at the University of Twente, Enschede. The research has been carried out at Qredits, Stichting Microkrediet Nederland between February 2010 and April 2011. Qredits offers a combination of business coaching and small loans with a maximum of €35.000,- to stimulate new entrepreneurship in the Netherlands.

This research was intended to give the management of Qredits an insight in how to control the employee performance at Qredits. In order to achieve this, two different theoretical concepts are interwoven. The principal agent theory places this practical problem in perspective and clarifies the general problem of formulating performance incentives which drive a person to undertake actions for someone else. The research explored to which extent the widely used COSO SPC framework for internal control provides a direct solution to the identified principal agent problems at Qredits.

However I did not achieve this result by myself, I specially want to thank my supervisor at Qredits, Vincent Stulen, for his advice, support and encouragement. I would also like to thank my supervisors at the University of Twente, Dr. P. de Vries and Drs. G.C. Vergeer RA for their critical feedback and guidance during this process. Finally I would like to direct my thanks to my family, friends and Pascal for supporting me during this sometimes challenging period.

I look back on a pleasant time, with nice colleagues, in which I continuously learned. I hope this Master Thesis clarifies what employee control means and can achieve for the management of Qredits.

Pim Geerdink

Hengelo, April 2011

Summary

This master thesis seeks to develop a better understanding of how to be in control of the employee performance at Qredits in order to effectively achieve the organizational objective of 2015.

In 2008 a new foundation was established to provide micro loans to new and existing entrepreneurs. This foundation, called Qredits Stichting Microkrediet Nederland is part of the overall ''Micro financiering in Nederland'' initiative. Qredits offers micro loans up to €35.000,- secured with professional business coaching. Screening of the micro loan application is executed through own loan officers who pro actively visit the entrepreneurs at home or at the business location. Currently the organization employs 25 full time employees, including 13 loan officers geographically divided over the Netherlands.

In November 2009 McKinsey and Company conducted a research commissioned by the Ministry of Economic Affairs to describe the future vision on micro financing in the Netherlands. This research resulted in a set of objectives for Micro financiering Nederland called ''Ambition 2015''. The main objective for Qredits is to sell 5000 loans per year by the end of 2015 with a default rate below five percent calculated over the total amount of outstanding debt. With this number of loans it will be possible for Qredits to cover the operational costs with the interest collections and Qredits can start to attract funding from private investors such as mainstream banks and pension funds.

To achieve both, the 5000 loans a year and conduct an intensive screening of all the loan applications the management hired 13 loan officers geographically located through the Netherlands. However, there is information asymmetry between the loan officer and the entrepreneur. The loan officer might not have all the relevant information to conduct a solid screening and the entrepreneur might be reluctant to share the information which will have a negatively influence on the risk assessment. On top of this issue, the management has to make sure the loan officers perform sufficient and reliable screening procedures. Because of the information asymmetry between the management and the loan officer it is possible for the loan officer to execute hidden actions and pursue own interests. Together this makes the loan officer the crucial factor in effectively reaching the organizational objective consequently the management wants to be in control of the performance of these loan officers.

Based on the practical problem the research objective is to provide the management of Qredits insight in how to be in control of employee performance in order to effectively reach the organizational objective of 2015.To fulfill the research objective, this explorative research is conducted using the case study methodology.

In the research two theoretical concepts are used; the principal agent theory and the COSO Smaller Public Companies framework. Both concepts are interwoven to provide an answer to the problem statement of this research: *''Which approach should be used by the management of Qredits to be in control of employee performance in order to effectively reach the organizational objective of 2015?''*.

The practical issue of Qredits is put in perspective using the principal agent theory and the possible effects. Based on this identification it is explored to which extent the COSO SPC framework provides a solution for the effects of the principal agent problems approaching the COSO SPC framework from the bottom up. These insights are incorporated in an evaluation tool based on the COSO SPC framework to provide a practical application of the theoretical framework. The evaluation tool is a validated list of variables and is used to assess the effectiveness of the internal control as it relates to the principal agent problems at Qredits. The evaluation tool is applied to data collected by qualitative interviewing of 12 loan officers, the management and the risk manager.

The first research question: *''What is the principal agent problem and how does it apply to the organization of Qredits?''* is used to place the practical problem of this research in a theoretical perspective. Principal agent

problems can be explained by the use of the principal agent relation. Starting point is the basis for a relationship, secondly there is a conflict of interest and finally there is information asymmetry. The agent has more knowledge concerning the specific circumstances influencing the final result than the principal which can be strategically used by the agent to pursue own interests.

This research identified two principal agent problems influencing an effective achievement of the organizational objective at Qredits; the principal agent relationship between the loan officer and the loan applicant and the principal agent relationship between the management and the loan officer. Key link in is the loan officer, who is involved in both of the principal agent problems.

According to Hendrikse (1993) there are two possible effects of the principal agent problem; adverse selection, caused by hidden information and moral hazard, caused by hidden actions. In the principal agent problem of the loan officer and the entrepreneur, adverse selection emerges because of the low interest rate necessary to make sure the good and the bad risks are still interested. The loan officers' job is to select only the good risks. This process is obstructed by the earlier explained information asymmetry between the loan officer and the entrepreneur using this advantage for strategic behavior.

In the principal agent problem between the management and the loan officer, the effect of moral hazard emerges because the management is not aware of all the actions the loan officer executes. The loan officer might execute actions which are not in line with the organization objective but favor own interests. The management has to increase control over the activities so that the loan officer reduces the hidden actions and acts on behalf of the organizational interests.

In order to make sure the management still achieves the organizational objective the management needs to reduce the adverse selection and moral hazard. One of the most common and widely used existing internal control frameworks for organizations is the COSO II ERM framework whereof the COSO SPC is a derivative initiated to provide a simplified version of the COSO ERM II framework for small organizations with limited resources and different characteristics. This COSO SPC framework is selected for the research because the framework is originally initiated by the Treadway Committee as a reaction to a set of accounting and fraud scandals and the framework provides structure the internal control for organizations. This triggered the question to which extent the COSO SPC framework provides a solution to the current principal agent problems at Qredits and results in the second research question: ''*To which extent does the COSO framework for Smaller Public Companies provide a solution for the principal agent problem at Qredits?'* . The COSO SPC framework is explored approaching the framework from the bottom up to indentify direct solutions for the two principal agent problems effecting the achievement of the organizational objective.

In order to provide a direct solution to the principal agent problems by the use of the COSO SPC framework, the area of application needs to focus on the business unit of Qredits. Based upon the use of the principal agent theory, this is the area where the control problems affecting the organizational objective are identified. The entity level and supporting departments of Qredits have an indirect contribution to the solution of the problems. The operational control objective of the COSO SPC framework directly contributes to a solution for the problems because the objective considers control over the actual operations at Qredits and therefore directly relates to the achievement of the organizational objective. The other control objectives compliance, strategic vision and financial reporting provide an indirect solution to the control problems. The COSO SPC framework contains five control components each relating differently to the principal agent problems at Qredits. The control component '' Control Environment'' provides no direct solution to (a part) of the principal agent problems, but serves as a foundation for the other four control components within the framework. The control component ''Risk Assessment'' relates directly to the principal agent problem between the loan officer and the entrepreneur and the hidden information. The control component ''Control Activities'' is directly related to the hidden actions of the loan officer. The control components ''Information and Communication'' and ''Monitoring'' provide a direct solution to both of the principal agent problems at Qredits. All together, the COSO SPC framework provides a solution to the principal agent problems at Qredits. Even though not all elements of the framework have a direct contribution to the solution of the principal agent problems and are addressing the real issue of this research. During the execution of this research it became clear that due to integrated character of the COSO SPC framework the effectiveness of the direct solutions is dependent on correct implementation of other not directly related elements of the framework and therefore implementation of solely the direct related elements might result in ineffective solution to the problem.

The COSO SPC framework is operationalized using an adjusted evaluation tool assessing the current effectiveness of the internal control and providing an answer to the final research question: *''To which extent is the COSO SPC framework present within Qredits in order to address the principal agent problem''.* Each of the control components consists of several interrelated variables contributing to the provision of relevant information for the management. Together these variables provide a standard to assess the effectives of internal control. This tool is used for assessing the effectiveness of the internal control as it relates to the parts of the framework which provide a direct solution to the principal agent problems. The other parts of the framework which are an indirect solution to the problem are left out of this evaluation tool to retain the focus on the practical issue. Even though being aware of the fact that the integrated character of the COSO SPC framework requires presence of all elements in order to achieve effective function of the direct solutions.

The outcome of the evaluation tool indicates that a large part of the COSO SPC framework is currently present at Qredits, however some crucial elements of the framework providing a direct solution to the adverse selection of the entrepreneurs and the moral hazard of the loan officers are not present. The largest share of the discrepancies is related to the hidden actions of the loan officer. These missing elements are very important because the loan officer is the key link in an effective achievement of the organizational objective.

Another approach for this research would have been a COSO SPC framework focused approach. Starting from a broader organization wide internal control perspective narrowed down by the use of principal agent problems directly effecting the achievement of the organizational objective as indentified by application of the principal agent theory at the current situation of Qredits. Using this approach the importance of the indirect elements and integrated function of the framework, which was discovered during the execution of this research, might have been anticipated up front.

Referring back to the research objective, the theoretical perspective provided by the principal agent theory interwoven with the COSO SPC framework to derive the direct solutions to the problems and the adjusted evaluation tool used to assess the current situation at Qredits provides an insight for the management on how to be in control of the employee performance in order to effectively reach the organizational objective. Main recommendations for the management of Qredits are the use of multiple sources for the risk estimation in order to reduce the hidden information. Solid measurement of the loan officers' contribution to the default rate and a motivational incentive scheme based on the measurement of the operational objectives in order to reduce hidden actions and align interest. On top of that the management could implement a code of conduct and increase both the degree of supervision and direct face to face communication. Other recommendations to decrease the information asymmetry are periodic loan file checks and an improved accuracy and timing of internal reporting.

Table of content

List of used figures

1. Introduction to the research

Micro financing in the Netherlands? Is micro financing not supposed to be for developing countries? Clearly not. Micro financing in the Netherlands means *''a combination of business coaching and small loans with a maximum of €35.000,- to stimulate new entrepreneurship in the Netherlands''* (McKinsey and Company, 2009). Although this definition is adjusted to the western society, the micro financing principles remain the same. The combination of coaching and financial support is crucial, equally as the focus on a target group who have no, or difficult access to the funds of the mainstream banks. Over the past years all kinds of entrepreneurs were helped to start up their own business by the use of this concept such as childcare centers, web shops and restaurants. The mission of the Micro financiering Nederland initiative is to *''Enhance entrepreneurship in the Netherlands''* (McKinsey and company, 2009).

In 2008 a new foundation was established to provide the micro loans to entrepreneurs. This foundation, called Qredits Stichting Mircokrediet Nederland is part of the overall ''Micro financiering in Nederland'' initiative. The position of Qredits within Micro financiering Nederland is illustrated in appendix 1. Qredits is a pilot study initiated by the Ministry of Economic Affairs to explore if the micro financing concept can be introduced on a nationwide scale. Qredits offers micro loans up to €35.000,- secured with professional business coaching. Screening of the micro loan application will take place by own loan officers who will visit the entrepreneurs at home or at the business location. Currently the organization employs 25 full time employees, including 13 loan officers geographically located in the Netherlands. These loan officers are coordinated from the head office in Almelo which facilitates the management and the Back Office, the organizational structure is illustrated in appendix 2. By the end of 2009 the organization sold over 500 loans to new and existing businesses (McKinsey and company, 2009).

In November 2009 McKinsey and Company conducted a research commissioned by the Ministry of Economic Affairs to describe the future vision on micro financing in the Netherlands. This research resulted in a set of objectives for Micro financiering Nederland called ''Ambition 2015''. The Ambition 2015 objectives are determined to have on the one hand an economic impact through the contribution of the entrepreneurs to economic activities and innovations in the Netherlands and on the other hand a social impact by effectively reaching a broad target group in the Dutch society (McKinsey and Company, 2009).

The main objective for Qredits determined in the Ambition 2015 is to sell 5000 micro loans per year to new and small business in the Netherlands by the end of 2015 maintaining a default rate below five percent (McKinsey and Company, 2009). In this organizational objective ''default rate'' is defined as the percentage of total amount of outstanding debt which is not repaid by the entrepreneurs during the maturity of the loan. The objective is based on two assumptions; the amount of loans necessary to benefit from scale advantage and the expected marked potential for the coming five years (McKinsey and Company, 2009). With this number of loans it is feasible for Qredits to cover the operational costs with the interest collections and start attracting additional funding from private investors such as mainstream banks and pension funds. The initial investment in the foundation is made by the Ministry of Economic Affairs (15.8 million euro) and the ABN AMRO Nederland, Fortis Nederland, ING Nederland and Rabobank Nederland (together 1.2 million euro) in order to start the pilot.

The management of Qredits wants to be in control of the employee performance for an effective achievement of the organizational objective and consequently satisfy the Micro Financing Board of Directors. Being insufficient in control of the employee performance provides the opportunity for the employees to perform low quality activities and decrease the effectiveness of reaching the objective, this practical problem is described in the next paragraph. The purpose of this research is to provide the management of Qredits insight in how to be in control of employee performance in order to effectively reach the organizational objective of 2015.

1.1 Practical problem

The organizational objective of Qredits as described in the introduction is determined by McKinsey and Company and approved by the overall Micro Financing Board of Directors. To satisfy this Micro financing Board of Directors and become self sufficient, the organization of Qredits has to effectively reach this objective.

In order to do so, the first concern of the management is to make sure the organization sells over 5000 loans per year by the end of 2015. However the management needs to make sure the entrepreneurs obtaining the loans are reliable and of low risk to secure a default rate below five percent over the amount of outstanding debt. To meet this criterion every loan application is intensively screened by the organization to secure the entrepreneurs are reliable and the loans are of low risk. To reach both, the 5000 loans a year and conduct an intensive screening of all the loan applications the management hired 13 loan officers geographically located through the Netherlands.

These loan officers have to make sure the applications and entrepreneurs are reliable through home visits and prior submitted business plans through the website of Qredits. Based on this input the loan officer conducts a screening report and assesses the risk of the loan application. Unfortunately, there is a large information asymmetry between the loan officer and the entrepreneur. The entrepreneur might be reluctant to provide the loan officer with the all the relevant information to conduct a solid screening because the entrepreneur might think some of the information could have a negatively influence on the risk assessment and consequently the chance on obtaining the loan. For example the entrepreneur will not mention other outstanding debts.

On the other hand the management has to make sure the loan officers perform reliable and qualitative good screening procedures. Because of the information asymmetry between the management and the loan officer it is possible for the loan officer to peruse these own interests. For example the loan officer might choose to not cross check the payment behavior of the entrepreneur with BKR tooling to go home early or increase chances on generation a loan.

Based on the above, the crucial factor in effectively reaching the organizational objective is the loan officer. The loan officer is the link that can make sure the 5000 loans are sold and the generated loans are of low risk. This makes the performance of the loan officers crucial for effective achievement of the organizational objective and consequently the management wants to be in control of the performance of these 13 loan officers.

The Principle Agent theory is applied to the performance control issue of the loan officers. The choice for this theory is motivated by two aspects. The theory elaborates on the information asymmetry between the employer and employee providing the opportunity for the employee to pursue own interests and the theory explains why there is a need to be in control for the management.

The most simple principal agent relations consist out of two persons. The employer (principal) hires an employee (agent) to execute activities secured by a contract. Unfortunately the delegation of duties and responsibilities is generally not without problems. The information structure behind the principal agent problem makes the theory interesting for this research. The employer can usually measure the results of the efforts but has generally less accurate information then the agent. Performance of the employee is therefore difficult to observe and confronts the employer with a loss of control over the employee performance (Hendrikse, 1993).

2. Research objective and problem definition

2.1 Research objective

This research was initiated by the management of Qredits to find out how the management can be in control of the employee performance to effectively achieve the organizational objective for 2015. As described, the management of Qredits is not always able to measure if the loan officers deliver the desired performance. This research has to provide a set of recommendations to the management of Qredits regarding how the management can be in control of this employee performance.

The objective of this research is to provide the management of Qredits insight in how to be in control of employee performance in order to effectively reach the organizational objective of 2015.

2.2 Problem definition

In order to reach a satisfying research outcome, it is necessary to know what matter needs to be addressed. A topic cannot be addressed without having a clear question. Therefore the research complemented with a problem definition in the form of a clearly formulated question based on the research objective.

Which approach should be used by the management of Qredits to be in control of employee performance in order to effectively reach the organizational objective of 2015?

2.3 Research model

To answer the problem definition and to provide a set of recommendations, the research is conducted using the case study methodology. Prior to the case study a desk research is conducted using two theoretical concepts; the principal agent theory and the COSO Smaller Public Companies framework. During the desk research the practical issue of Qredits is put in perspective by the principal agent theory and it is explored to which extent the COSO SPC framework provides a solution for the principal agent problems at Qredits approached from the bottom of the framework.

These insights are incorporated in the existing COSO SPC evaluation tool. This evaluation tool is based on the COSO SPC framework and was developed by the same Committee of Sponsoring Departments of the Treadway Commission with assistance of the Federal Government Accountability Office (GAO), issued in June 2006 to provide a practical application tool for the theoretical framework. The evaluation tool is a validated list of variables intended to asses and provide a reliable insight in the effectiveness of the internal control at Qredits conducting a variable oriented analysis. This analysis describes and or explains by looking closely at the details of each variable based on the qualitative data gathered during the interviews. The purpose of this adjusted evaluation tool is to assess the effectiveness of the internal control as it relates to the principal agent problems at Qredits effecting the achievement of the organizational objective. The approach is illustrated in figure 2.1.

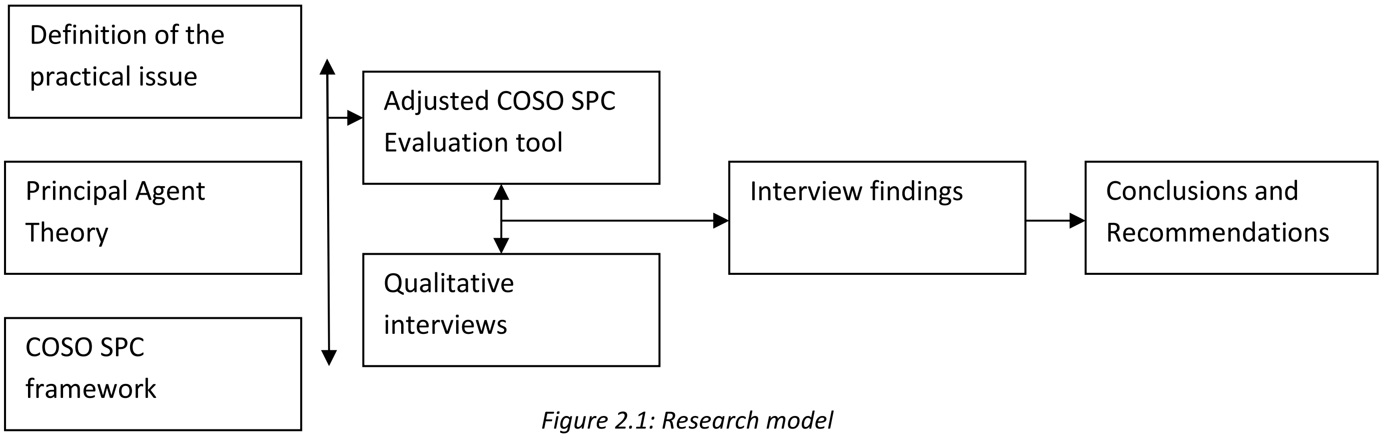

Figure 2.1: Research model

2.4 Research questions

The following research questions and sub questions are derived from the problem definition and the research model. The answer to these questions provides an insight in the factors contributing to a solution for the principal agent problem at Qredits, this in order to control the employee performance and consequently achieve the research objective. The first two research questions are theoretical questions. The last research question is answered by both, theoretical and empirical data.

Being insufficient in control of employee performance provides the opportunity for the loan officers to decrease the performance and therefore decrease the effectiveness of Qredits. This practical problem is put into perspective by the principal agent Theory. This theory is of use for the research, because it clarifies the causes and effects of the practical control problem between the management of Qredits and the employee directly influencing the organizational objective. On top of that the theory suggests a set of solutions to address these causes and not solely the effects. The theory is applied to the different actors within Qredits by the use of the theory to identify for which relationships the principal agent problem applies.

1) What is the principal agent problem and how does it apply to the organization of Qredits?

1. What is the principal agent problem?
2. How does it apply to the organization of Qredits?

The previous research question indicates how the principal agent problem applies to the employees directly effecting the achievement of the objective. One of the most common and nowadays widely used existing internal control frameworks for organizations to control employee performance is the COSO II ERM framework. Especially for smaller companies the COSO commission introduced in 2006 ''the Guidance for Smaller Public Companies''. This framework is a simplified version of the COSO ERM II framework providing a uniform and common framework of reference for internal control considering limited recourses and scope. This raises the question if this framework provides a solution to the principal agent problems at Qredits and results in the second research question:

2) To which extent does the COSO framework for Smaller Public Companies provide a solution for the principal agent problem at Qredits?

The current organization of Qredits needs to be subjected against the COSO Smaller Public Companies framework in order to assess the effectiveness of the current internal control directly related to the principal agent problems. In this research the standardized evaluation tool of the COSO Smaller Public Companies framework, issued by the same COSO commission, is used to conduct a validated assessment of the current effectiveness of internal control. Based on the results of this evaluation tool a conclusion is drawn regarding the current effectiveness of employee performance control complemented with a set of recommendations.

3) To which extent is the COSO Smaller Public Companies framework present within Qredits in order to address the principal agent problem?

2.4 Research constraints

The management of Qredits determined a set of research constraints before the beginning of the research. Within this set of constraints the research is executed.

Scope: The research and recommendations should consider the entire operational process directly influencing the organizational objective, meaning the management and risk manager located at the head office in Almelo and the 13 loan officers located geographically in the Netherlands. The research does not directly consider the supporting departments located at the head office in Almelo and the overall Micro Financing Board of Directors located in Den Haag.

Continuity: The research should be executed based on the research of McKinsey and Company conducted in November 2009 commissioned by the Ministry of Economic Affairs.

2.5 Research Structure

In this chapter the structure of the research is described. The research consists of three parts structured into eight subsequent chapters. The structure of the research is illustrated in figure 2.2.

Part 1

The first chapter provides an introduction to the research and the organization followed by a description the practical issue. In the second chapter the problem definition and the research questions for this research are established and a description of the research constraints determined by the management is given. Chapter three justifies the research methodology and motivates on the data collection through qualitative interviews.

Part 2

This part elaborates in chapter four on the principal agent theory, related issues and possible effects. Afterwards the principal agent theory is applied to the organization of Qredits determining the potential principal agent problems effecting the achievement of the organizational objective. Chapter five describes to which extent the existing COSO Smaller Public Companies framework provides a direct solution to the, in chapter four, indentified principal agent problems at Qredits approaching.

The sixth chapter explains the current operational control of Qredits using the related variables of the standardized evaluation tool for the COSO Smaller Public Companies framework. The effectiveness of the internal control and provision of information is evaluated and provides input for the final part of this research.

Part 3

Based on the theoretical framework and the discrepancies indentified in the case study the overall research conclusions are drawn in chapter seven and a set of recommendations is established in chapter eight.

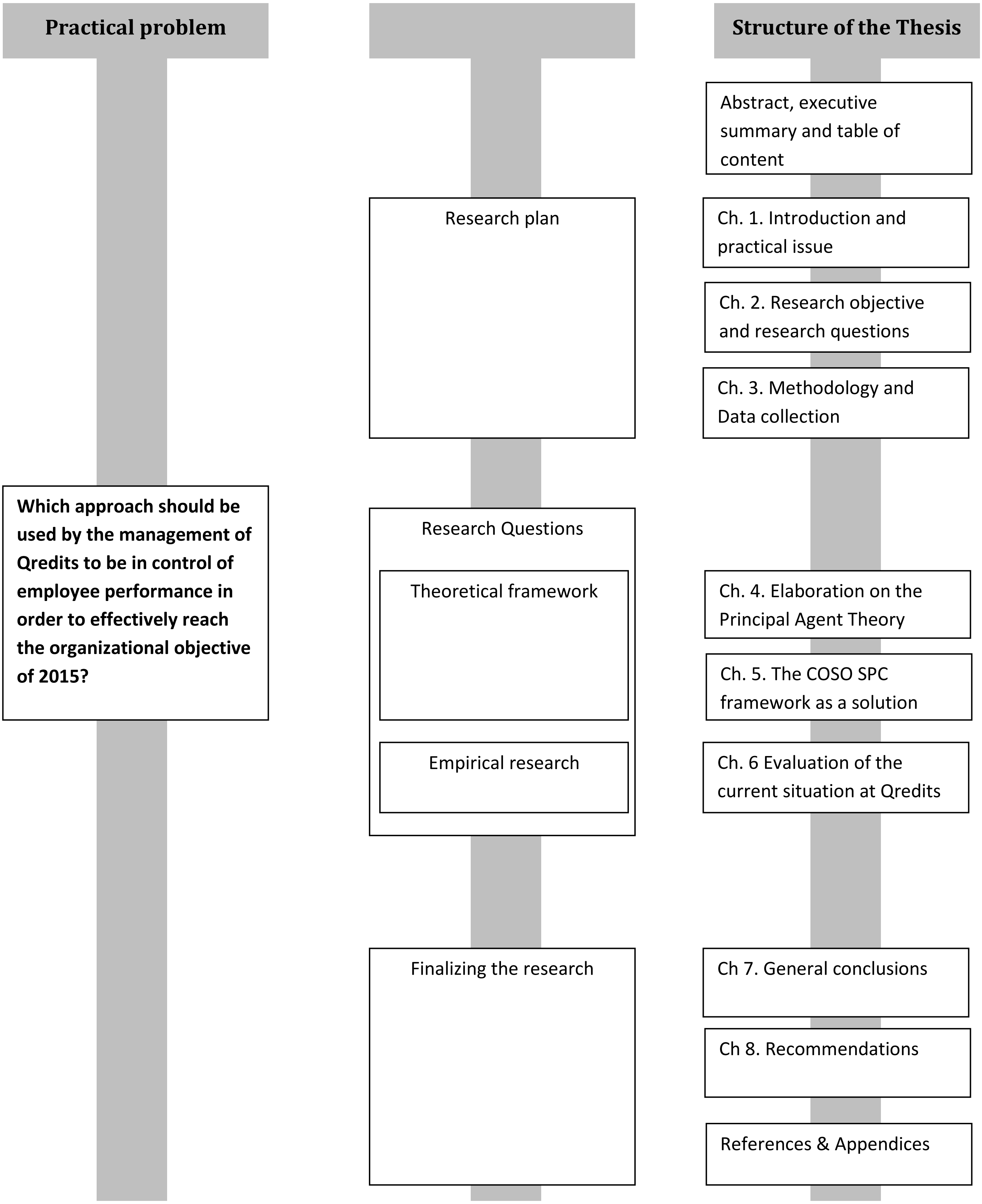

Figure 2.2: Overview of the research structure

3. Methodology and Data collection

This part of the research elaborates on the method used to execute the research and the data collection of the used data. The objective of this research has an explorative purpose; it explores for the management of Qredits how to be in control of the employee performance. The selected case study is a non experimental, explorative type of study (Babbie, 2007), focusing on a contemporary phenomenon with a real life context.

3.1. Methodology

Case study

The case study is based on a selective sample, which is performed by one unit of analysis, the organization of Qredits. This allows for gathering qualitative data on location and reduces uncertainty in order to perform an in-depth analysis (Doorewaard and Verschuren, 1999). The research method relies on descriptive information provided by different people. Unfortunately this leaves room for important details to be left out. Besides, much of the collected information is retrospective data and therefore subjected to problems with the memory (Shadish *et. al.,* 2002). To ensure the conduct validity multiple sources will be used during this research. The relevance for causation is very limited because there is only one unit of analysis which is analyzed by the use of qualitative data. This also makes that the results of this research are hard to generalize and creates a relatively weak external validity. Although this could be argued since external validity could also be achieved through generalization of theoretical relationship. Yin (1994) stated that specification of the unit of analysis in the research provides internal validity as the theories are developed and the theories are tested by the data collection and analysis. The reliability is defined as demonstrating that the operations of a study can be repeated with the same results. The next paragraph described several measures to increase the reliability of this research.

3.2. Data collection

Qualitative interviews

For the case study the data is collected through qualitative interviews. This method of data collection provides in-depth information needed to gain qualitative data and is inexpensive to execute. Besides using qualitative interviews remains the researcher to stay flexible and modify the research whenever necessary (Babbie, 2007). Conducting interviews provides a couple of advantages over the other methods for data collection. Through interviews information comes available which cannot be provided by other sources, besides the interviewee can support the interpretation of complex information.

The data are collected using the qualitative method of interviewing. Qualitative interviewing allows interaction between the interviewer and the interviewee. The interviewer has a general plan, including the topics to be covered, but not a set of questions that must be asked. The interviewer can probe for more in-depth answers, although the interviewer has to secure that this does not bias the answers (Rubin and Rubin, 1995).

Prior to the interviews the topics are reviewed by an expert on internal control systems and based on this feedback the topics are revised. On top of that the topics are used in a pilot interview for further improvement. The outcome of this pilot interview is not included in the research. All of the interviews are written out by the interviewer based on the notes taken during the interview. However the interviews are written out in English and based on the interviewers' interpretation. This might bias the answers given by the interviewee. To secure this bias the interviews are only included in the research after approval of the interviewees.

All of the interviewees are employees at Qredits which makes that the interview topics are of importance to the daily activities of the interviewees. This also means the interviewees all have access and an interest in the subject. However the direct relation between the daily activities and the outcome might lead to organizational changes affecting the daily activities of the interviewees. This makes it difficult for the interviewee to act impartial and biased information might be provided because of own interest. To decrease this bias, the information provided by the interviewee is verified with the information collected in the other interviews and the information is verified with existing documentation. Next to that, the interviewer gained sufficient prior knowledge concerning the interview topics to detect bias. The interviews are held on a voluntary base, which makes the interviewees willing and able to convey information. As an additional measure, the interviews are approved by the interviewee before use. This lowers the boundary for transferring knowledge and information. These interview criteria and measures to reduce biased information are communicated in the beginning of the interview and increase the reliability by taking away resistance to act impartial and convey objective information.

The reliability of the researcher is also questioned; it is likely that a different researcher will interpret the interviewees differently. The researcher is aware of this, takes this into account and makes sure any form of subjective judgment is avoided and if not, put in comparative perspective. The interviews are conducted by the researcher self to guarantee knowledge of the subject and increase probing during the interviews. The researcher is independent, has no involvement or participation in the existing core or supporting activities at Qredits and is unable to influence the environment.

The interviewer conducted 15 interviews. Besides the 13 loan officers, the management and the Risk Manger are interviewed to collect data for this research. 12 of the 13 loan officer interviews are used in this research; one loan officer was interviewed for the pilot interview (J.G. Hulman) and is excluded from the research. The loan officers are selected as actors in this research because they are the key link in the effective achievement of the organizational goal. The management is selected because of its principal interests and overall responsibility for achievement of the organizational objective. Finally, the risk manager is selected because this function occupies a key control and authorization position in the core process and the work of the loan officers. The complete overview of interviewees can be found in the list of interviewees on page 46 of this research. The written versions of the interviews are available at the author on request.

4. Principal agent theory

As shortly addressed in the introduction the management of Qredits has to be in control of the employee performances to effectively reach the organizational objective and satisfy the Micro Financing Board of Directors. This practical problem is put into perspective by the principal agent theory which according to Hendrikse (1993) *''Clarifies the general problem of formulating performance incentives which drive a person to undertake actions for someone else''.* However, this definition leaves out one crucial factor, the information asymmetry between the principal and the agent. This factor is emphasized in the definition of Eisenhardt (1989). *''The principal agent theory treats the difficulties that arise under conditions of incomplete and asymmetric information when a principal hires an agent''*. If this research refers to the principal agent theory, a combination of the above mentioned definitions is intended focusing on both, the conflict of interest and the information asymmetry.

In this chapter the first research question is addressed: *''What is the principal agent problem and how does it apply to the organization of Qredits?''.* The paragraphs 4.1 and 4.2 elaborate on the principal agent theory and the relevant principal agent problems at Qredits. In paragraph 4.3 the possible effects of the principal agent problem are described and applied to Qredits, followed by a paragraph elaboration on the possible solutions for the problem. The chapter ends with a short conclusion.

4.1 Explanation of the principal agent Problem

As described in the introduction of this research, the simplest principal agent relation consists out of two persons. For example a principal (employer) hires an agent (employee) to execute activities secured by a contract (Hendrikse, 1993). Unfortunately the delegation of duties and responsibilities is generally not without problems. The principal usually measures the results of the agents' efforts but has generally less accurate information then the agent. The principal has less knowledge about the intensity and the circumstances under which the agent executed the activities. Activities of the agent are therefore difficult to observe and confronts the principal with a loss of control over the agents' performance (Hendrikse, 1993). The duty of the principal is to conduct a contract based on observable variables in such a way the purpose of the contract is maximized. A contract can cover different elements like incentive structures, information systems or assigned duties and responsibilities (Hendrikse, 1993). The content of the contract is partly determined by the acceptance of the agent.

In formulating the principal agent problem three different decisions are separated (Hendrikse, 1993). In the first place the principal chooses the elements of the contract which determine the rewards for the agent. This includes the working conditions, such as salary and promotion policy, organizational structure and insurances. The contract content is specified before the agent undertakes any action. Secondly, the agent chooses whether to accept or reject the contract. After signing the contract the agent chooses what action will be taken (Hendrikse, 1993). The bounding character of the contract is of importance because it determines the earnings for both the principal and the agent.

Principal agent problems can be explained by the use of the principal agent relation (Arrow, 1985). Starting point is the basis for a relationship, meaning the generation of a surplus. Secondly there is a conflict of interest, the principal wants the agent to execute the activity properly but this will involve additional costs for the agent. Besides during the division of the generated surplus both the principal and the agent desire the largest share at the expense of the other. Final crucial factor is the availability of information; the agent has more knowledge concerning the specific circumstances influencing the final result than the principal (Arrow, 1985) which will be explained in the next paragraph.

Information structure

The information structure behind the principal agent problem makes the theory particularly interesting for this research. The information structure indicates who has which information at what point in time. In some occasions everybody will have all the information, however this is an exceptional situation. Most occasions are characterized by information asymmetry: people executing the operational activities have frequently more knowledge about the operational circumstances than the management has Hendrikse (1993).

Milgrom and Roberts (1987) illustrate this problem by the use of a card game played in three series. Every player gets five cards each. In the first game all card are placed open on the table and every player can see all cards. The bets are placed and the best hand wins. In the second game, three cards are placed open on the table and everyone receives two closed cards which cannot be viewed by any of the players. The players have to place the bets without full knowledge of their own hand. Next, all the cards are placed open on the table and again the best hand wins. The third game is played as the second game, except every player is allowed to view their own hand. The bets are placed, the closed cards are opened and the best hand wins.

The first game is an example of information symmetry; it is easy to determine what will happen for every person involved in the game. There is uncertainty in the second game but the information symmetric. This makes that there still is no space for strategic behavior by any of the game players. In the third game the players each have information which is unknown for the others. Such a situation of information asymmetry might result in strategic behavior, such as bluffing, signaling and building a reputation by any or one of the players (Milgrom and Roberts, 1987). The last game illustrates one of major causes of the principal agent problem.

4.2 Principal agent relationships at Qredits

The core business of Qredits is to sell small business loans to starting and small businesses in the Netherlands. The organizational objective is to sell 5000 loans per year with a maximum default of five percent by the end of 2015. Based on solely the number of applications the management can easily generate the 5000 loans a year and reach the first part of the objective. However the organizational objective is complemented with a condition. From the 5000 loans per year only five percent of the total amount of outstanding debt can end up as default. The other part of the total amount of outstanding debt needs to be completely repaid to Qredits during the maturity of the loan in order to have an effective operation and accomplish the organizational mission. This means only the good risk loan applications can be generated in order to become effective.

Because of the risk variation in the loan applications every loan applicant needs to be screened by the organization to determine the appropriate risk level of the application. Due to the scope of these activities the management created a team of loan officers performing the screenings procedures throughout the Netherlands. The job of the loan officer is to find out whether the loan application is relevant for the organization. However the management needs to make sure the loan officers perform a high quality job. If not, the risk estimation of this loan officer might be invalid and the effectiveness of reaching the organizational objective decreases. Figure 4.1 shows the persons who are involved in the provision of loans in order to reach the organizational goal.

Basically the organization has to cope with two principal agent problems. First, there is a problem between the loan officer and the entrepreneur who submitted the loan application. The loan officer does not know if the loan application is a good or bad risk. Secondly, the organization uses the loan officers to estimate the risk of the loan application but the management does not know if the loan officer conducts proper risk estimation. Below both principal agent problems are elaborated and subjected against the three criteria for a principal agent relation as determined by Arrow (1985) and described in paragraph 4.1.

Crucial for Qredits is the key role of the loan officer. The loan officer is involved in both of the principal agent problems at the organization but each time on different position. In the first principal agent problem, between the loan officer and the entrepreneur, the loan officer is the principal and the entrepreneur is the agent. In the second principal agent problem, between the management and the loan officer, the management is the principal and the loan officer is the agent, this is illustrated in figure 4.1.

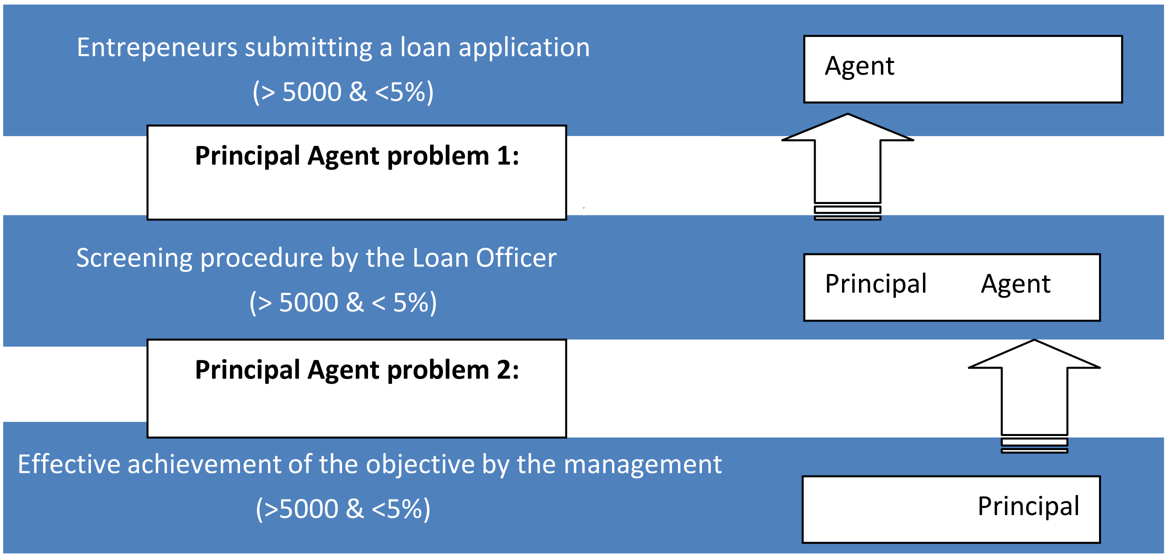

Figure 4.1: Principal agent problems at Qredits.

The principal agent problem between the loan officer and the entrepreneur.
The first principal agent problem lies in the relationship between het loan officer, acting on behalf of Qredits, and the entrepreneur who submitted the loan application at Qredits. The foundation for this relationship from the loan officers' point of view is the monthly interest collection and the possible contribution to the society evolving from this investment. The surplus from the entrepreneurs' point of view is generated from the provision of the actual loan.

This different basis for the relationship displays the conflict of interest between the loan officer and the entrepreneur. The loan officer is concerned with an intensive risk estimation of the loan application in order to generate a low risk loan for the organization. However, the entrepreneur is not interested in a solid risk estimation because this could decrease the chance on a loan. The entrepreneur will try to keep information hidden and pursue own actual interests, which is this case simply obtaining a loan.

The final and crucial element in this relationship is the information asymmetry between the loan officer and the entrepreneur. Considering the conflict of interest between the two parties it is clear that the entrepreneur has the information advantage in this relationship. The loan officer wants to gain as much as possible relevant information about the personal competences of entrepreneur and the business plan to conduct a solid risk estimation for the loan application. Considering the situation from a strategic point of view, the entrepreneur on the other hand will not easily provide this information since it might contain information with a negative influence on the risk estimation of the loan officer. For example the entrepreneur will not tell the loan officer about other outstanding debts or bad payment behavior in the past, instead the entrepreneur will emphasize the good market potential and good entrepreneurial competences to increase the chances on loan approval.

2) The principal agent problem between the management and the loan officer.

In the second problem the management, acting on behalf of Qredits, and the loan officer, acting on behalf of own interests, are the basis for a possible principal agent problem. The basis for the generation of the surplus for the management is additional loan sales contributing to the organization objective and resulting in additional interest collections. The surplus for the loan officer lies in the rewards for the executed effort. These are primarily financial rewards but not necessarily, other rewards such as promotion, a larger office or status also contribute to the basis for this relationship.

These different motives for this relationship create a conflict of interest. Both, the management and the loan officer desire the largest share of the surplus. In this relationship the management wants the loan officer to generate as much as possible loans against minimum rewards but the loan officer wants to obtain maximum reward against minimal effort.

Final crucial factor in this relationship is the information asymmetry. The basis of this relationship shows that the loan officer has an information advantage, concerning the circumstances of the loan generation, over the management. The management has less relevant information regarding the number of generated loans and the screening procedures. For example a decrease in generated loans might not directly be accounted to the quality of the loan officer, this could also be caused by the specific circumstances. This lack of information might create the opportunity for the loan officer to act strategic and obtain a larger share of the surplus by decreasing the effort against equal reward.

The management is able to count the number of loan agreements per week and evaluate the performance of the loan officer. However, because of information asymmetry it is impossible for the management to measure the quality of the screening to reduce the risk of the loan agreement. If the loan officer performs a low quality screening he or she might generate loans with a higher risk level and still reach the target without awareness of the management. The management does measure one additional loan agreement but is unaware of the bad risk of this loan because this will come to the management’s attention in a later stage.

The management is aware of this problem and implemented an additional operational objective for the loan officers. Besides the quantity target, the loan officer is also responsible for the percentage of default in the total amount of outstanding debt in their customer portfolio. This percentage is directly derived from the organizational objective and should remain below the five percent at any time. Unfortunately this measurement is ex ante and by the time this information becomes available it is in fact too late for action.

The loan officers are not the only employees responsible for this objective, it is the result of a team production. Team production is when the individual contributions of the agent cannot be derived from the overall result, one produces together (Hendrikse, 1993). This can easily be illustrated by moving a piano. The overall result is clear, the piano has been moved, however the individual performance is hardly measureable.

In the case of Qredits, the default rate is a team production between the loan officers, the risk manager and the Collection department. All three parties have a stake in the actual result of the default rate, but it is impossible to derive the individual contributions of the result. Meaning the loan officer is able to generate high risk loans in order to reach the quantity objective without being held completely responsible for the increase in default, this because the management is unable to identify what actually caused the default; improper risk estimation, poor collection or bad follow-ups.

4.3 Effects of the principal agent problem

There are two possible effects of the principal agent problem; moral hazard and adverse selection. Basically moral hazard concerns a hidden action while adverse selection concerns hidden information (Eisenhardt, 1989).

Adverse selection at Qredits is caused in the principal agent problem between the loan officer and the entrepreneur. The loan officer does not know if all the relevant information about the business and the entrepreneur is available for the risk estimation of the loan application is correct. This hidden information is used for own benefit by the entrepreneur who increases the chances on a loan.

In this research moral hazard is related to the principal agent problem between the management and loan officer. As described the previous paragraph the management is unaware if the activities are executed by the loan officer in such a way the action are in line with the interest of the management.

Adverse Selection

Below the effect of adverse selection is described for the principal agent problem between the loan officer and the entrepreneur.

If an entrepreneur approaches Qredits for a loan to start a business the entrepreneur will most probably not get it. This is difficult to understand looking to the situation from a demand and supply perspective. However in reality a loan is not easily granted. The organization is not only interested in the possible interest but the organization is equally interested in the risk involved in the business of the entrepreneur. This risk is the chance on a possible default of the loan. Entrepreneurs differ in the likelihood on a loan default however this is not observable for the organization. Consequently the interest rate is affected by a hidden decision problem because everyone willing to pay a higher interest is more likely to have a high risk business. These entrepreneurs are willing to pay a high interest because the chance on repayment is lower. On the other hand a higher interest rate will affect the willingness of the low risk businesses to obtain the loan, increasing the average risk of the loans for the organization. The profitability of the organization can even decrease in case of an increase in the interest. This principle of Stiglitz and Weiss 1981 is illustrated in figure 4.2.

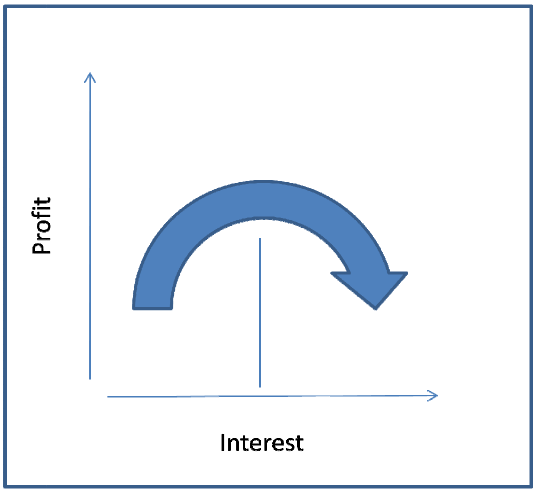

Figure 4.2: Profitability of the organization.

This effect dominates the effect of adverse selection in the case of low a low interest rate. An increase of interest results in a larger interest collections for the organization however when the interest becomes too high the adverse selection effect becomes more important than the direct effect of the interest increase. This effect is decreased by a fixed average interest rate, making sure the good and the bad risks are still interested and the level of adverse selection decreases (Hendrikse, 1993).

This remains the loan officer with the challenge to distinguish the interested good risks from the bad risks. The good risk loans are accepted and generated into new loans while the bad risks are rejected and will not obtain a loan from Qredits. This activity is seriously obstructed by the earlier explained information asymmetry between the loan officer and the entrepreneur. The entrepreneur has more information about the business situation, the entrepreneurial competences and payment behavior than the loan officer and might be reluctant in sharing this information to strategically prevent a bad risk estimation from the loan officer and therefore the possibility on a loan.

Moral hazard

There is a ''moral hazard'' if both parties have the same amount and quality of information during the contract agreement but the actions made by the employee cannot be direct observed by the employer (Arrow, 1985). The principal solely observes the result of the actions, not the actual effort of the agent. This can be referred to as ex-post information asymmetry (Hendrikse, 1993). The final result does not necessarily have to be a proper measurement for the efforts of the agent because external factors may interfere with these efforts. Consequently the agent could push oneself in executing the delegated activity since the principal is unable to determine the cause of the result. This abuse of information asymmetry is referred to as shirking (Hendrikse, 1993).

The loan officer could decrease the efforts and actions during the screening process and risk estimation. This may not directly be reflected in the measurement of the principal because even though some of the risk estimations might be of low quality, the repayments can still be on schedule or the actions undertaken by the other employees contributing to the objective might stimulated the entrepreneur to pay. Besides a default could be caused by many different, for the management, unknown circumstances which makes it impossible to fully account the default on the actions of the loan officer. Effort does not solely relate to the hours of work but equally to the effort it takes to make unpleasant decisions such as explaining to the entrepreneur why the loan application is rejected (Hendrikse, 1993).

The effort of the loan officer influences the wellbeing of both, the management and the loan officer. This could be determined as a conflict of interest because the effort increases the well being of both, but only decreases the well being of the agent. For example hard working is appreciated by the principal but usually not by the agent. The decision of the agent might be influenced by the degree of risk involved with the action or the degree to which the action can be used for own benefit, such as the size of a company car (Hendrikse, 1993).

4.4 Solutions to the principal agent problem

According to Hendrikse (1993) the principal can use two approaches to direct the performance of the agent into the desired direction and reach this balance. First option is to collect additional information to decrease the information asymmetry and therefore make it harder for the agent to pursue own interests. Information could be generated by direct contact, appointing a supervisor or by comparing agents with a comparable situation. Second option is to include performance incentives in the contract in such a way the self interest of the agent is in line with the interest of the principal. An example of these performance incentives are performance dependent rewards.

Collecting additional information

The above explained principal agent problem has reflected that the measured performance of the agent not necessarily reflects the quality of the agent. A high default percentage does not necessarily have to be the cause of the screening quality of the loan officer. This can also be caused by other internal or external influences such as a bad performance of the collection department or an unforeseen decline of the market in which the entrepreneur is operating.

An implication from the previous paragraphs is that it is attractive for the principal to gain additional information concerning the working environment of the agent and the possibilities to control the quality of the agent. The uncertain external circumstances influencing the performance of the agent can up till a certain level be considered by comparing the performances of other agents in similar positions. Inefficiencies caused by the performance incentive problem can be reduced by generating more relevant information (Hendrikse, 1993). Uncertain factors influencing the performance of certain agents are usually equally applicable for other agents. This information enables the principal to conduct better performance incentives for the agent.

A second possibility to decrease the information asymmetry is by controlling the activities of the agent. For example by the use of a time sheet, reducing the number of agents accounted to one supervisor to increase the attention for the different agents, quality checks or time studies regarding the activities of agents. However increasing monitoring activities involves additional costs for the organization (Hendrikse, 1993).

Performance incentives

The first solution to the principal agent problem is to include performance incentives in the contract in such a way the self interest of the agent is aligned with the interests of the principle (Hendrikse, 1993). Performance incentives require the collection of additional information by the principal in order to measure the actual performance of the agents.

The performance incentives in a contract often define punishments or rewards, for example the threat of job loss in case of continuous disappointing performance. Performance incentives based on punishments aim to prevent bad quality while rewards on the other hand aim to stimulate good quality. Both types of performance incentives shift the self interests of the agent towards the interests of the principal and consequently decrease the principal agent problem. A performance incentive does not necessarily have to be financially, both punishment and reward incentives can be non financial (Hendrikse, 1993).

Lazear (1979) addresses the principal agent problem based on contract seniority. To reduce hidden actions the salary of the employee is in the first years of the employment lower than the production of the employee. As a condition to deserve a salary higher than the productivity the employee may not be caught on a bad performance.

As addressed in the previous paragraph, the organizational objective of a default rate below the 5 percent is a team production. The overall result is clear, the default rate, however the individual performance is difficult to measureable. The performance incentive needs to be determined based on the overall result. The satisfaction from the team effort is the difference between the appointed share of the result and the efforts involved in the contribution (Hendrikse, 1993). This creates a problem for the performance incentives. Every individual knows that the result of the individual effort needs to be shared with all team members. This provides an opportunity for hidden action and consequently a reduced effort of all individuals compared to independent production. McAfee and McMillan (1989) found a solution to this problem by increasing the (non) financial reward by 1/ number of team members for every additional individual effort. The involved employees receive for every additional effort a part of the reward.

Financial rewards: The most obvious form of finical reward is a performance dependent salary. In this case the agent receives a salary build from a basic salary component and a variable salary component. The variable salary component increases if the performance of the agent increases (Hendrikse, 1993). However such structures require solid performance objectives, indicators and measurement. If these are not solid conducted based on the principles interests the performance dependent salary might stimulate the wrong behavior of the agent. This performance depended salary could also be turned around by the use of penalties. For example every time the performance of an agent becomes below a predetermined standard the bonus of the agent decreases.

Non financial rewards: These incentives align the interests of the agent without addressing the financial interest of the agent. Common examples of non financial rewards are job promotion, job recognition and status (Hendrikse, 1993). The most common non financial performance incentive is the threat of job degradation or even job loss. Where status could be a rewarding non financial performance incentive, a negative reputation could be a punishing incentive.

4.5 Conclusion

Principal agent problems can be explained by the use of the principal agent relation. Starting point is the basis for a relationship, secondly there is a conflict of interest and finally there is information asymmetry. The agent has more knowledge concerning the specific circumstances influencing the final result than the principal which can be strategically used by the agent to pursue own interests. At Qredits there are two principal agent problems identified influencing an effective achievement of the organizational objective; the principal agent relation between the loan officer and the loan applicant and the principal agent relation between the management and the loan officer. Key link in this case is the loan officer, who is involved in both of the principal agent problems. In the first problem the loan officer acts as principal and the entrepreneurs as agent. In the second principal agent problem the loan officer is the agent and the management of Qredits is the principal.

There are two possible effects of the principal agent problem; adverse selection, caused by hidden information and moral hazard, caused by hidden actions. In the principal agent problem of the loan officer and the entrepreneur, the adverse selection appears because of the low interest rate. An increase of interest results in a larger interest for the organization however when the interest becomes too high the adverse selection effect becomes more important than the direct effect of the interest increase. To decrease the adverse selection Qredits has to set a fixed interest rate making sure the good and the bad risks are still interested. The loan officers' job is to select only the good risks. This process is obstructed by the earlier explained information asymmetry between the loan officer and the entrepreneur using this information asymmetry for strategic behavior.

In the principal agent problem of the management and the loan officers, the effect of moral hazard appears because the management is not aware of all the actions the loan officer undertakes. This influences the performance of the loan officer, who might undertake actions which are not in line with the interests of Qredits but favors own interests. The managements' duty in this case is to increase control over the activities so that the loan officer will act on behalf of the organizational interests.

The principal can use two approaches to direct the performance of the agent into the desired direction. First option is to collect additional information and consequently decrease the information asymmetry and therefore obstruct strategic behavior. Additional relevant information could be generated for example by direct contact, or by comparing agents with a comparable situation. Second option is to include performance incentives in the contract in such a way the self interest of the agent is in line with the interest of the principal. An example of these performance incentives is a more flexible salary structure for the agent.

5. COSO SPC framework

The previous chapter described the practical issue at Qredits by the perspective of the principal agent theory. The effects of the principal agent problems at Qredits influence the effective achievement of the organizational objective. In order to make sure the management still achieves the objective the management needs to reduce the moral hazard and adverse selection. One of the most common and widely used existing internal control frameworks for organizations is the COSO II ERM framework.

The COSO ERM II framework is a management framework developed by the Committee of Sponsoring Organizations of the Treadway Commission knows as COSO (COSO ERM II executive summary, 2004). This committee consists of a number of private organizations and established in 1992 a set of recommendations and guidelines concerning internal control as a reaction to a number of accounting and fraud scandals. This voluntary private sector organization is dedicated to improving the effectiveness of internal control. In 2004 the COSO report has been actualized to focus on the entire control of an organization and is today known as COSO II Enterprise Risk Management framework (COSO ERM II executive summary, 2004). Especially for smaller companies the COSO commission introduced in 2006 ‘’ the Guidance for Smaller Public Companies’’. This guidance is especially initiated to provide a simplified version of the COSO ERM II framework for small organizations, which have reporting obligations to shareholders determined in the Sarbanes-Oxley Act. Section 404 of this Act requires management of public companies to annually assess and report on the effectiveness of internal control (COSO SPC executive summary, 2006).

The reasoning behind the choice for the COSO SPC framework in this research starts where the previous chapter ends, reducing the effects of the principal agent problems. The COSO framework for Smaller Public companies is relevant for this research because the fundamental COSO report is originally initiated by the Treadway Committee as a reaction to a set of accounting and fraud scandals, which are in the perspective of the principal agent theory, moral hazards caused by hidden actions. Making use of the COSO SPC framework provides the management structure concerning internal control and addressing hidden actions and hidden information. The COSO SPC framework in particular provides a uniform and common framework of reference for internal control considering limited recourses and scope of a small organization like Qredits.

The previous chapter places the practical problem of Qredits in the perspective of the principal agent problem and indicated effects directly effecting the achievement of the organizational objective. This raises the question if this framework provides a solution to the current principal agent problems at Qredits and results in the second research question: *’’To which extent does the COSO framework for Smaller Public Companies provide a solution for the principal agent problem at Qredits?’’* This research question is answered in the following paragraphs of this chapter. The chapter starts with a description of the COSO SPC framework and in paragraph 5.2 the principal agent problems at Qredits are related to the different parts of the framework in order to specify which parts of the COSO SPC framework contribute to a solution to the practical issue of Qredits.

5.1 COSO ERM II framework & COSO SPC framework

The COSO II ERM framework describes and defines the different elements of an internal control system. *''The COSO model is not strictly a serial process, where one component affects only the next. It is a multidirectional, interactive process in which almost any component can and does influence another ''* (Flaherty, 2004). The COSO II ERM framework represents the direct relation between the organizational objectives, the control components and the organizational area which require internal control. Figure 5.1 illustrates the COSO ERM II framework, this three dimesional cube shows on the top the four different control objectives according and on the right side the different areas of application. The front of the cube represents the eight control components through which internal control can be realized.

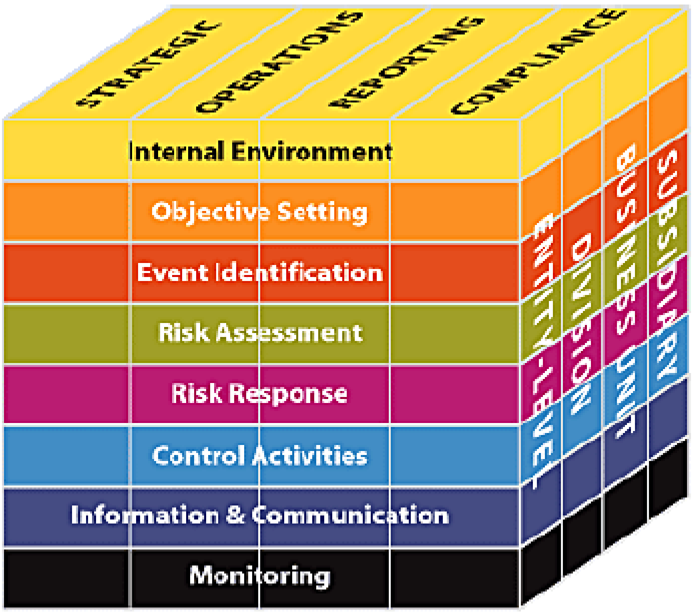

Figure 5.1: Illustration of the COSOII ERM framework

Limitation of the above mentioned COSO ERM II framework is the focus on middle and large organizations and therefore difficult implementation for Qredits, which is a relatively new and small organization. Qredits has solely one business line and maintains a geographically market approach. The organization deals with fewer personnel, many having a wider range of duties and only one management level. On top of that Qredits has less recourses concerning legal, human resources, accounting and internal auditing.

Especially for these smaller companies the COSO Treadway Commission introduced in 2006 '' the Guidance for Smaller Public Companies''. This guidance is especially initiated for the provision of internal control considering the limited resources of smaller organizations (COSO SPC guidance, 2006). Although there are many ways to define businesses as small, medium-size or large, this guidance does not provide such definitions. It uses the term “smaller” business, suggesting there is a wide range of companies to which the guidance is directed (COSO SPC guidance, 2006).

In this framework, the existing COSO II ERM framework is simplified into the COSO framework for Smaller Public Companies. This framework merged the eight control components of the COSO ERM II into five control components. However the control objectives and the different areas of application remain the same, all though on a smaller scale, the framework is now presented in a simplified process circle (*Figure 5.2*). This circle illustrates the five different control components of the COSO SPC framework which are briefly explained and linked to the two principal agent problems at Qredits in the next paragraph.

Figure 5.2: Illustration of the COSO framework for Smaller Public companies

5.2 Area of application

First item to be considered is the organizational area to which the framework is actually applied, the different parts of the organization where internal control might be desired. This could for example be a business unit, a division or internal control at entity level. The COSO SPC framework can also be applied to only one area or even a part of this area depending on the organizational needs (COSO executive summary, 2004).

Considering the practical issue in the research the need and therefore the area of application is in this case limited to the business unit of Qredits, the loan provision. In particular the core process of the business unit, which is the process of generating new loans for new and existing small businesses. The two principal agent problems described in the previous chapter both apply to this area of the organization. Both of the principal agent problems cause a loss of control in the core process and directly affect the effective achievement of the organizational objective and consequently the continuity of the organization.

The control objectives and the control components for the COSO SPC framework will only be applied to this area of the organization in order to directly serve as a solution to the principal agent problems at Qredits.

5.3 Control objective

Second item to be considered are the control objectives of the COSO SPC framework. The control objectives are only subjected against the above determined area of application. The COSO SPC framework serves four different control objectives (Claassen, 2009).

1. The strategic objective secures that the high-level goals are aligned with, and supporting the organizational mission (Flaherty, 2004). The strategic goal needs to be translated to the lower levels in the hierarchy of the organization (Claassen, 2009)
2. The operational objective concerns effective and efficient use of its resources which are available to fulfill a particular component in the front of the COSO II ERM framework cube (Flaherty, 2004)
3. The reporting objective relates to the reliability of financial reporting (Flaherty, 2004)
4. Compliance relates to the compliance of applicable laws and regulations to the industry of the organization (Flaherty, 2004)

Reviewing the four objectives of the COSO SPC framework and applying the objectives on the practical issue in this research, it appears that not all control objectives seem to contribute to a direct solution for the problems at Qredits.

The first control objective does not relate to the principal agent problems at the Qredits. All though all objectives are interrelated and thus of indirect influence on the principal agent problems at Qredits, succeeding this control objective means gaining control over the organizational strategy and alignment of the organizational objectives and is therefore no real direct contribution to the reduction of the principal agent problem.

The second control objective considers control of the actual operations at Qredits. The core operation of Qredits is the provision of loans and is the main determinant whether the organizational objective is effectively reached. These operations are executed by the loan officers, who have to estimate the risk of the entrepreneur submitting a loan application in order to sell a low risk low. The other principal agent problem is also directly related to operations and considers the control over the activities of the loan officer by the management.

The third control object of reliable financial reporting seems to be relevant for the reducing of the principal agent problems because information asymmetry between the principal and the agent is one of the three conditions causing the problem. However reliable financial reporting is just an indirect contribution to the solution of the practical issue, because other than achieving the operational control objective, accomplishment of reliable financial reporting and therefore achievement of the report control objective does not solve the principal agent problems at Qredits. Instead the provision of relevant information is addressed in the next paragraph as a control component to contribute to the achievement of the operational control objective. The last control objective is not directly related to the principal agent problem since it directly relate to control over compliance of laws and regulations.

5.3 Control components

Now that it is clear what the area of application is and which control objective to achieve, the five control components illustrated in figure 5.2 are related to the practical issue. Every control component is described separately and its relation and contribution is clarified.

Control environment

The control environment component is the foundation upon which all other components of internal control are based and sets the tone of an organization. The control environment for the principal agent problem between the loan officer and the entrepreneurs is as follows; entrepreneurs submit the loan application through the website of Qredits. The loan applications are distributed based on the zip code area of the loan officers. The loan officer visits the entrepreneur in his or her natural environment, preferably at home but in some cases, when the business of the entrepreneurs has been up and running, at the business location.

The control environment of the principal agent problem between the management and loan officer is also determined by the operations of the organization. The main determinant of this control environment is the external location of the loan officers in order to efficiently carry out the daily operations. As described above the loan officers work from their homes and visits the entrepreneurs based on a zip code. This means there is very limited face-to-face contact between the loan officers geographically divided over the Netherlands and the management situated in Almelo. Although the hierarchical distance between management and the loan officer might be small because of the organizational size, the physical distance between both does not provide the opportunity for the management to recognize quickly where loan officers' performance needs modification.

This control component does not provide a direct solution to the principal agent problems at Qredits. However it does help to put the other control component in perspective and serves as a starting point for the other control components. Therefore the control component is indirectly related to the loan officers. Without this indirect control component the other control components of the COSO SPC framework become less effective. For example it is impossible to maintain the segregation of duties or direct supervision for the loan officers if Qredits does not have sufficient capacity in supervisory positions.

Risk Assessment

Risk assessment in smaller companies can be relatively efficient, often because in-depth knowledge of the company's operations enables the management to have first hand information of where risks lay (COSO SPC guidance, 2006). A precondition to risk assessment on operational level is the establishment of clear and consistent objectives. Once the objectives have been set, the organization needs to identify the risks that could influence effective achievement of those objectives, asses the risks and determine a risk response. This control component relates to the principal agent problem between the loan officer and the entrepreneur and has direct influence on the effective achievement of Qredits' organizational objective.

The loan officer has to conduct a risk assessment for every submitted loan but is obstructed by hidden information; consequently the organization has to cope with the adverse selection. This control component relates to the approach used by the loan officer to indentify the potential risk of the loan, the methods used to verify and analyze the risk and the potential measures which have to be taken by the loan officer in order to cope with the risks and possible effects.

Identifying and analyzing the risks of the loan application reduces the hidden information and the effect of adverse selection. This increases the likelihood of effectively achieving the operational objective of a default rate below five percent, meaning the control component is of great value in providing a solution to the principal agent problem between the loan officer and the entrepreneur.

Control Activities

Internal control activities are the policies, procedures, techniques, and mechanisms that help ensure that managements' directives to mitigate risks identified during the risk assessment process are carried out. The control activities include a wide range of diverse activities, such as approvals, authorizations, verifications, performance reviews, security activities, and the production of records and documentation (COSO SPC guidance, 2006).

The control activities are appropriate to ensure that managements' interests are carried out. This directly relates to the principal agent problem between the management and the loan officer and the effect of moral hazard. Having a solid set of control activities makes it harder for the loan officer to execute hidden actions and influence the effective achievement of the organizational objective.

Information and Communication

Information systems identify, capture, process, and distribute information supporting achievement of the operational control objective (COSO SPC executive summary, 2006). Information systems at Qredits are less formal than in larger, more mature organization, but the role of information and communication is significant. Qredits relies more on manual or stand-alone information technology applications than complex integrated applications. Effective internal communication between management and loan officers is facilitated, due to fewer levels and numbers of personnel and greater visibility and availability of the management.

The control component Information and Communication provides a direct solution to both of the principal agent problems at Qredits. As described, the information asymmetry between the principal and the agent is one of the three determinants for a principal agent problem. A solid information flow and communication method between the loan officer and the entrepreneur in the first problem and the management and the loan officer is the second problem decreases the opportunity for the agents to carry out hidden actions, in the case of moral hazard or preserve hidden information in the case of adverse selection.

Monitoring

Internal control systems are monitored to assess the quality of the systems' performance over time. This is accomplished through ongoing monitoring activities, separate evaluations or a combination of these two (COSO executive summary, 2006). Monitoring helps determine the effective functioning of the other internal control components for which the management performs an evaluation of the effectiveness of certain controls (COSO SPC guidance, 2006).

This control component relates to both of the principal agent problems. It is the last control component of the circle and helps the management of Qredits to overlook the other control components and maintain the effectiveness over time. The monitoring control component is derived from the other control components and has a direct contribution for a solution to the principal agent problems.

5.4 Conclusion

Especially for the smaller companies the COSO Treadway commission introduced in 2006 ʹʹ the Guidance for Smaller Public Companiesʹʹ This guidance is especially initiated to provide a simplified version of the COSO ERM II framework for small organizations with limited resources and different characteristics. The COSO SPC framework is relevant for this research because the fundamental COSO framework was originally initiated by the Treadway Committee as a reaction to a set of accounting and fraud scandals, which is typical example of moral hazard. Besides, the framework structures the internal control addressing the hidden actions and hidden information. The application of this COSO SPC framework is approached from the bottom up to indentify components offering potential direct solutions for the two principal agent problems directly effecting the achievement of the organizational objective.

The framework has a wide area of application and not all areas are direct related to the practical issue in this research. In order to provide a solution to the problem, the area of application for the framework needs to be narrowed down to the business unit of Qredits, since this is the area where the principal agent problems of Qredits occur and the framework provides a direct solution. Other areas of application at Qredits such as, entity level or supporting departments do not provide a direct solution to the problems and have an indirect contribution.

Only the second control objective of the COSO SPC framework contributes to a direct solution for the problems, this objective considers control over the actual operations at Qredits, the provision of loans. This is the main determinant for effective achievement of the organizational objective. These operations are executed by the loan officers, who have to estimate the risk of the entrepreneurs' loan application and whose actions are desired to be controlled by the management. Control objectives such as compliance, strategic vision and financial reporting only provide indirect solutions to the problem.

The five control components of the COSO SPC framework each have a different contribution to the principal agent problem at Qredits. The control component ʹʹ Control Environmentʹʹ is the only component not providing a direct solution to one of the problems, but helps to put the other control component in perspective and serves as a foundation. The control component ʹʹRisk Assessmentʹʹ is direct related to the principal agent problem between the loan officer and the entrepreneur and the control component ʹʹControl Activitiesʹʹ is direct related the principal agent problem between management and the loan officer. The control components ʹʹInformation and Communicationʹʹ and ʹʹMonitoringʹʹ provide a direct solution to both of the principal agent problems at Qredits.

Referring back to the research question: ʹʹ*To which extent does the COSO framework for Smaller Public Companies provide a solution for the principal agent problem at Qredits?ʹʹ,* the conclusion is that the COSO SPC framework provides a solution to the principal agent problems at Qredits. Even though application of the entire framework might not be relevant to provide a direct solution to the principal agent problem and address the real issue in this research. To achieve this, the framework needs to be narrowed down to application at the business unit with the control objective addressing operations and remaining four of the five control components.

Important conclusion in this chapter is that during the research it became clear that the COSO SPC framework is an integrated framework and all the elements together provide an effective framework of internal control. Even though not all elements contribute directly to the solution of the principal agent problems within Qredits, the elements do contribute indirectly to the problems and are of great importance for the direct solutions in order to function effective. Without these indirect elements functioning properly the COSO SPC framework is not an effective solution to the principal agent problems at Qredits.

6. Application

As explained in the previous chapter the COSO SPC framework indentifies five control components that need to be integrated to ensure the achievement of the operational effectiveness. These control components of the COSO SPC framework are operationalized in order to assess the current effectiveness of the internal control and give an answer to the third research question: *''To which extent is the COSO SPC framework present within Qredits in order to address the principal agent problem''.*

Each of these control components consist of several interrelated variables contributing to the provision of relevant information for the management. Together these variables provide a standard for smaller companies to assess the effectives of internal control. Based on this framework of variables the COSO commission developed an evaluation tool. This evaluation tool is based on the COSO SPC framework and was developed by the same Committee of Sponsoring Departments of the Treadway Commission (COSO) with assistance of the Federal Government Accountability Office (GAO), issued in June 2006 to provide a practical application tool for the theoretical framework.

The evaluation tool is a validated list of variables intended to asses and provide a reliable insight in the effectiveness of the internal control at Qredits conducting a variable oriented analysis. This analysis describes and or explains by looking closely at the details of each variable and is based on the qualitative data gathered during the interviews.

This tool is used for assessing the effectiveness of the internal control as it relates to the conclusion of the previous chapter, meaning the evaluation tool is adjusted and narrowed down to the parts of the framework which provide a direct solution to the principal agent problems. The other parts of the framework which are an indirect solution to the problem are left out of this evaluation tool to retain the focus on the practical issue.

In the first paragraph of this chapter the tool is introduced and explained, followed by a description of the variables in the second paragraph and finally a summary per control component is provided in the last paragraph describing the current situation at Qredits based on an evaluation of the variables in appendix 3.

6.1 Evaluation tool

The COSO SPC evaluation tool discusses internal control from a broad, overall organization perspective based on the internal control components and focusing on control objectives. Consequently, this evaluation tool provides insight in the current situation and familiarity with the components. By using this tool for the research it is possible to draw a conclusion about the organizations' internal control as it currently relates to its particular control components from the COSO SPC framework (COSO SPC guidance, 2006).

The evaluation tool is presented in five sections corresponding to the five control components for internal control: control environment, risk assessment, control activities, information and communications, and monitoring. Each section contains a list of major variables to be considered when reviewing internal control as it relates to the particular control component. These variables represent the important issues addressed by the control component and should be evaluated when addressing the control component and its effective functioning.

Even though some of the variables are subjective in nature and require the use of judgment, the variables are important in achieving control component effectiveness. Besides each variable, a summary of comments and descriptions of the circumstances affecting the variable is included. This includes information on how the department does or does not address the issue.

However one ineffective variable does not directly mean that the entire control component is ineffective, this because, as described in the previous chapter, all control components and variables are interrelated and provide overlap. It should be understood that this tool is not an authoritative part of the components for internal control. It is intended as a tool used to assess the effectiveness of internal control and identifying important aspects of control in need of improvement.

In this research the organization is evaluated on the presence of the control measures and procedures. It is not tested whether the elements are correctly functioning or if the content is correct and adequate.

6.2 Variables of the evaluation tool

In this paragraph the different variables per control component are selected which are listed in the evaluation tool for the COSO SPC framework considering the in chapter five determined area of application, control objective and relevant control components to addressing the practical issue and providing a direct solution to the principal agent problems at Qredits.

Control environment

The control environment component is the foundation upon which all other components of internal control are based, and sets the tone of an organization. However this control component is no direct solution to the problems at Qredits. But because of the integrated character of the COSO SPC framework it not possible to achieve effective control over the other control components without an effective control environment. It is of importance that these indirect solutions are present within the organization to support the direct solutions.

Being aware of this fact, the variables related to this control component are not considered during the evaluation of the internal control at Qredits in order to retain the focus on the direct solutions of the principal agent problems at Qredits.

Risk Assessment

Risk assessment as it relates to the objective of effective operations involves identification and analysis of the risks estimation. Four of the five risk assessment related subjects relate to the practical issue at the organization, the last subject is related to a different area of application and is left out the evaluation. The remaining four subjects and corresponding variables are listed below.

1. Establishment of Activity-Level Objectives

Variables

1. Operational objectives flow from and are linked with the organizational wide objectives and strategic plans.
2. Operational objectives are complementary, reinforce each other, and are not contradictory.
3. The operational objectives are relevant to the processes.
4. Operational objectives include measurement criteria.
5. Resources are adequate relative to the operational objectives.
6. All levels involved in establishing the operational objectives and are committed to the achievement.

2. Risk Identification

Variables

1. The loan officer comprehensively identifies risk using various methodologies as appropriate.

3. Risk Analysis

Variables

1. After the risks to the organization have been identified, the loan officer undertakes a thorough and complete analysis of the possible effect.

2. The organization has developed an approach for risk management and control based on how much risk can be accepted.

4. Managing Risk during change

Variables

1. The organization has mechanisms in place to anticipate, identify, and react to risks presented by changes in governmental, economic, industry, regulatory, operating, or other conditions that can affect the achievement operational objectives.

Control Activities

In assessing the adequacy of internal control activities, one should consider whether the proper control activities have been established, whether the control activities are sufficient in number, and the degree to which those activities are operating effectively. The management should consider not only whether established control activities are relevant to the risk-assessment process, but also whether the control activities are being applied properly (COSO SPC evaluation tool, 2006). This control component provides a direct solution for the principal agent problem between the management and the loan officer and consequently the effect of hidden actions.

It is probable that, even if two organizations did have the same operational objectives, the organizations would employ different control activities. This is due to individual judgment, implementation, and management. Given the wide variety of control activities that organizations may employ, it would be impossible for the evaluation tool to address them all. However, there are some general, overall points to be considered by the organization, as well as several major categories of control activity that are applicable throughout the operational department. The control activities are divided in general controls and controls specific for information systems.

6. Control Activities

Variables

1. The management reviews at operational level. Management reviews actual performance against targets.
2. Management of Human Capital. The organization effectively manages the loan officers' workforce to achieve results.
3. Information Processing. The organization employs a variety of control activities suited to information processing systems to ensure accuracy and completeness.
4. Physical control over vulnerable assets. The organization employs physical control to secure and safeguard vulnerable assets.
5. Performance measures and indicators. The organization has established and monitors performance measures and indicators.
6. Segregation of Duties. Key duties and responsibilities are divided or segregated among different people to reduce the hidden activities.
7. Access restrictions to and accountability for resources and records. Access to resources and records is limited and accountability for their custody is assigned.
8. Documentation. Internal Control and all screening reports and other significant events are clearly documented.

7. General Application

Variables

1. Appropriate policies, procedures, techniques, and mechanisms exist with respect to each of the loan officers activities.
2. The control activities identified as necessary are in place and being applied.
3. Control activities are regularly evaluated to ensure that the controls are still appropriate and working as intended.

Control Activities Specific for Information Systems.

Some control activity factors are specifically designed for information systems, subdivided in general control and application control. General control includes the structure, policies, and procedures that apply to the loan officers' computer operations and applies to all information systems. General control creates the environment in which the application systems operate (COSO SPC guidance tool, 2006). There are six subjects control activities that need to be considered when evaluating general control for information systems (COSO SPC evaluation tool, 2006). The variables to be evaluated are listed below.

8. Control Activities specific for information systems in general.

Variables

1. Access Control
2. Application Software Development and Change Control
3. System Software Control
4. Segregation of Duties
5. Service Continuity

Control Activities specific for information system, Application Control

Application control covers the structure, policies, and procedures designed to help ensure completeness, accuracy, authorization, and validity of all transactions during application processing. It includes both the routines contained within the computer program code as well as the policies and procedures associated with user activities, such as manual measures performed by the user to determine that the data were processed accurately by the computer.

There are four major factors of control activities that need to be considered by the user when evaluating application control. The factors are listed below as examples of issues to be considered.

9. Categories of Control Activities specific for information systems related to a*pplication Control.*

1. Authorization Control
2. Completeness Control
3. Accuracy Control
4. Control Over Integrity of Processing and Data Files

Information and Communication

Information systems identify, capture, process, and distribute information supporting achievement of financial reporting objectives. Three subjects relate to the control component information and communication (COSO SPC evaluation tool, 2006).

For an organization to run and directly control its operations, it must have relevant, reliable information, both financial and non-financial, relating to external as well as internal events. That information should be recorded and communicated to management and others within the organization, in a form and within a time frame that enables to carry out internal control and operations (COSO SPC evaluation tool, 2006).

In addition, the organization needs to make sure that the forms of communications are broad and that information technology management assures useful, reliable, and continuous communications. The management should consider the appropriateness of information and communication systems to the organizations' needs, in this research, concerning the agents of the two principal agent problems. As described earlier, decreasing the information asymmetry between the principal and agent decrease the effects moral hazard and adverse selection.

10. Information

Variables

1. Information from internal and external sources is obtained and provided to the management as a part of the organizations' reporting on operational performance relative to established objectives.
2. Pertinent information is identified, captured, and distributed to the right people in sufficient detail, in the right form, and at the appropriate time to enable them to carry out the duties and responsibilities effectively.

11. Communication

Variables

1. Management ensures that effective internal communications occur.
2. Management ensures that effective external communications occur with groups that can have a serious impact on programs, projects, operations, and other activities, including budgeting and financing.

12. Forms and Means of Communications

Variables

1. The organization employs many and various forms and means of communicating important information with employees and others.
2. The organization manages, develops, and revises its information systems in an effort to continually improve the usefulness and reliability of its communication of information.

Monitoring

Monitoring is the final internal control component. Internal control monitoring should assess the quality of performance over time and ensure that the findings of audits and other reviews are promptly resolved. Three subjects relate to the monitoring control component.

In considering the extent to which the continued effectiveness of internal control is monitored, and therefore the solution to the principal agent problems, both ongoing monitoring activities and separate evaluations of the internal control system should be considered (COSO SPC evaluation tool, 2006). Ongoing monitoring occurs during normal operations and includes regular management activities, comparisons, reconciliations, and other actions people take in performing the duties. Separate evaluations are a way to take a fresh look at internal control by focusing directly on the controls effectiveness at a specific time. The management should consider the appropriateness of the organizations' internal control monitoring and the degree to which it helps them accomplish the operational objectives (COSO SPC evaluation tool, 2006).

13. Ongoing Monitoring

Variables

1. The management has a strategy to ensure that ongoing monitoring is effective and will trigger separate evaluations where problems are identified or systems are critical and testing is periodically desirable.
2. In the process of carrying out the regular activities, loan officers obtain information about whether internal control is functioning properly.
3. Communications from external parties should verify internally generated data or indicate problems with internal control.
4. Appropriate organizational structure and supervision help provide oversight of internal control functions.
5. Data recorded by information and financial systems are periodically compared with physical documentation and discrepancies are examined.
6. Meetings with loan officers are used to provide the management with feedback on whether internal control is effective.

14. Separate Evaluations

Variables

1. The scope and frequency of separate evaluations of internal control are appropriate for the organization.
2. The methodology for evaluating the organizations' internal control is logical and appropriate.
3. Deficiencies found during separate evaluations are resolved.

6.3 Completed evaluation tool

The completed evaluation tool concerning the effectiveness of the internal control at Qredits in relation to the principal agent problems is presented in appendix 3.

6.4 Summary per control component

This paragraph provides a quick overview per control component regarding the current effectiveness of the particular control component based on the variable oriented analysis in appendix 3.

Risk assessment

The management has established clear, consistent and complementary operational objectives for the key activities of the loan officers which are in line with the organizational objective. However the default standard of five percent is a team production and the contribution of the loan officer is hard to measure, besides the information provided by this objective is ex-ante and can only be used as input for future reference. The management has made a thorough identification of possible risks, from both internal and external sources that may affect the ability of the organization to meet those objectives. An analysis of those risks has been performed, and the organization has an appropriate approach for migrating, accepting and managing the risks.

Both qualitative and quantitative methods are used to determine the risk of a loan application and are documented in a standardized screening report conducted by the loan officer. Criteria have been established for determining, low, medium and high risk applications. Unfortunately, the information used for the risk estimation is primary based on the information provided by the entrepreneur and to a smaller extent based on information provided by third parties or historical data such as BKR tooling and earlier submitted similar applications. Monthly meetings between management, Risk Management and loan officers are implemented to share visions and thoughts about risks identification and risk analysis. Finally management indentifies external and internal changes that may affect the organizations' ability to achieve its objective.

Control Activities

General control: management reviews the loan officers' performance at operational level and reviews actual performance against target by the use of measurement criteria developed for the two operational goals. Even though this highly valued by the management, the organization did not implement an adequate compensation system based on these reviews in order to encourage the loan officers to maximize their performance and align interests.

The organization has procedures in place to ensure loan officers with the appropriate competencies are in place and are provided with training and tools to enhance their performances. There is no code of conduct describing the organizational values and providing a written reference in case of violation.

The organization provides very limited coordination and supervision to the loan officer ensuring the activities are correctly carried out and reducing the self interests of the loan officers. The organization has control activities in place that ensure correct and accurate data entries in the software applications.

Crucial control activity at Qredits is the segregation of duties. The risk manager reviews every single screening report and without the authorization of the risk manager it is impossible to generate the loan. Management is aware that collusion between the loan officer and risk manager bypasses this control activity. The current control activities are no periodically evaluated on effectiveness.

Controls specific for information systems: the organization classified the information resources according to critically and sensitivity and has authorized users secured by physical controls such as passwords. The information access is limited to job responsibilities of the loan officers and the use of information is monitored, for example the use of the online BKR tool. The service continuity of the information systems is guaranteed though a contingency plan which is periodically tested.

The software application ''Micronet'' which is used to generate and complete the screening report is supported by appropriate authorization controls, completeness controls and accuracy controls. Besides procedures are in place to guarantee the latest version of software and the systems protects against file and screening report updates.

Information and Communications

Information systems are in place to identify and record pertinent operational and financial information relating to internal and external events. The appropriate information is provided for internal reporting however not on a timely base. Information is available on a timely basis to allow for an effective authorization of the screening reports by the risk manager. Unfortunately personnel are not required to sign of the accuracy on generated financial and operational reports.

The information is communicated to management and others within the organization who need it and in a form that enables them to carry out their duties and responsibilities effectively. The management ensures that effective internal communications take place. It also ensures that effective external communications occur with groups that can affect the achievement of the operational objectives. The organization employs various forms of communications appropriate to its needs and manages, develops, and revises its information systems in a continual effort to improve communications. However direct and face to face communication between management and loan officers is very limited due to the separate working locations.

Monitoring

Managements' approach provides the opportunity for feedback and monitoring on performance objectives for example during monthly meetings and individual meetings besides the monitoring through operational reports. Communications from external parties helps the organization to verify internal documentation and improve internal control, for example the payment behavior of customers can be verified with the risk estimation of the loan officer. The documentation in loan files is not periodically checked on completeness and correctness and therefore differences between recorded and actual documentation are not resolved.

In addition, separate evaluations of internal control are periodically performed by someone not involved in the operational activities and the deficiencies found are investigated. Procedures are in place to ensure that the findings of all audits and other reviews are promptly evaluated, decisions are made about the appropriate response, and actions are taken to correct or otherwise resolve the issues promptly, but unfortunately this process is not documented.

7. Conclusion

This research addresses a current practical issue at Qredits, Stichting Microkrediet Nederland. The organization wants to effectively reach the long term organizational objective, which is to sell 5000 loans per year by the end of 2015 with a default rate over the total outstanding amount of debt below five percent. The achievement of this objective is directly dependent of the provision of loans. This core process is executed by 13 loan officers to make sure that sufficient loans are being sold and to make sure the loans are of low risk to keep the default rate below five percent. The objective of this research is to provide the management of Qredits insight in how to be in control of employee performance in order to effectively reach the organizational objective set for the end of 2015.

In this research two theoretical concepts are used; the principal agent theory and the COSO SPC framework. The theoretical concept of the principal agent theory is used to frame the practical employee control problem of Qredits in a theoretical perspective. Subsequently this perspective is used to indentify to which extent the COSO SPC framework provides a solution to the problems at Qredits. This by approaching the COSO SPC framework from a narrow perspective focused on direct solutions to the two principal agent problems at Qredits towards a broader overall perspective of the framework. These insights are incorporated in the existing COSO SPC evaluation tool to provide a reliable insight in the effectiveness of the internal control at Qredits based on the date gathered with the qualitative interviews.

However during the execution of this research it became clear that due to integrated character of the COSO SPC framework the effectiveness of the direct solutions is affected by correct implementation of the other indirect elements of the framework. For example a control activity such as direct supervision of the loan officer will only be effective if the organization has sufficient supervisory capacity, which is an element of the control environment. Concluding that the direct related elements are only an effective solution to the principal agent problems if both the direct and indirect related elements are correct implemented.

The principal agent problem can occur in every principal agent relation meeting three criteria. Starting point is the basis for a relationship, secondly there is a conflict of interest and finally there is information asymmetry. The agent has more knowledge concerning the specific circumstances influencing the final result than the principal which can be strategically used by the agent to pursue own interests.

From the description of the practical issue two different principal agent problems at Qredits are indicated directly effecting the achievement of the organizational objective. The first principal agent problem lies in the relationship between the loan officer and the entrepreneur. The loan officer has less relevant information concerning the loan application than the entrepreneur. This hidden information obstructs a proper risk assessment by the loan officer and increases the overall default rate of outstanding debt. The second principal agent problem is between the management and the loan officer. The loan officer acts on behalf of own interests and might execute hidden actions because of the information asymmetry. The hidden actions directly influence the sales and the default rate of the organization.

The loan officer is involved in both of the principal agent problems and is the key link in reaching the organization objective. In the first principal agent problem the loan officer is the principal and has to cope with the hidden information and control the entrepreneur but in the second problem the loan officer is the agent and the management the principal who wants to control the loan officers hidden actions in order to effectively contribute to the achievement of the organizational objective.

In the principal agent problem of the loan officer and the entrepreneur, adverse selection appears because of the interest rate. An increase of interest rate results in a larger interest for Qredits but when the interest becomes too high the adverse selection effect becomes more important because only the bad risks remain interested in a loan. To decrease the adverse selection Qredits has to set an interest rate making sure the good and the bad risks are still interested. The loan officers' job is to generate the good risk loan. This process is obstructed by the hidden information between the loan officer and the entrepreneur. In the principal agent problem of the management and the loan officers, there is moral hazard because the management is not aware of all the actions executed by the loan officer who might undertake actions which are not in line with the organizational objective of Qredits. The managements' duty is to control the activities of the loan officer to prevent hidden actions.

The COSO SPC framework is approached starting from the bottom up to indentify direct solutions for the two principal agent problems directly effecting the achievement of the organizational objective.

The COSO SPC framework has a wide area of application but in order to provide a direct solution to the problem, the area of application for the framework needs to be focused on the business unit of Qredits. This is the area where the control problems affecting the organizational objective are indentified using the principal agent theory. The Entity level and supporting departments do not provide a direct solution to the problems but have an indirect contribution to the solution of the problems.

The operational control objective of the COSO SPC framework directly contributes to a solution for the problems because the objective considers control over the actual operations at Qredits and therefore directly relates to the achievement of the organizational objective. The other control objectives compliance, strategic vision and financial reporting provide an indirect solution to the control problems.

The control components of the COSO SPC framework each relate differently to the principal agent problems at Qredits. The control component '' Control Environment'' does not provide a direct solution to one of the principal agent problems, but serves as a foundation for the other four control components. The control component ''Risk Assessment'' relates directly to the principal agent problem between the loan officer and the entrepreneur and the hidden information. The control component ''Control Activities'' is direct related to the hidden actions of the loan officer. The control components ''Information and Communication'' and ''Monitoring'' provide a direct solution to both of the principal agent problems at Qredits.

All together, the COSO SPC framework provides a solution to the principal agent problems at Qredits. Even though not all elements of the framework have a direct contribution to the solution of the principal agent problems and are addressing the real issue of this research. The directly to the problems related elements lie in an application of the framework on business unit level focused on operational control reached through the control components risk assessment, control activities, information and communication and monitoring.

The outcome of the applied evaluation tool related to the direct solutions for the principal agent problems at Qredits indicates that a large part of the COSO SPC framework is currently present at Qredits and provides the following core insights. Considering the control component ''Risk Assessment'', the management has established operational objectives for the loan officers in line with the organizational objective. However the objective related to the default rate is a team production and the contribution of the loan officer is not measured. For example it is not clear if the entrepreneur paid the monthly repayment because of a good entrepreneur selection of the loan officer or because of an effective collection policy of the Collection department. Qredits used qualitative and quantitative methods to estimate the risks and visits the entrepreneurs at home to reduce hidden information. Main discrepancy to reduce the adverse selection are the limited sources used for the risk estimation, the estimation is primary based on information provided by the entrepreneur.

Related to the control component ''Control Activities'' addressing the hidden actions of the loan officer it is concluded that the effectiveness of the general control activities can be improved by linking an adequate compensation system to maximize performance and align the interests of the loan officers with the interests of the management to the current performance reviews at operational level. The organization ensures that loan officers with the appropriate competencies are in place but did not implement a code of conduct describing the organizational values and describing the desired ethical behavior. The organization has controls in place that ensure correct data entries in the software applications but a discrepancy is the limited coordination and direct supervision of the loan officers including the frequency of direct face to face contact. Crucial at Qredits is the segregation of duties. The risk manager assesses every single screening report and without the authorization of the risk manager the loan is not generated. The management is aware that collusion between the loan officer and risk manager bypasses this control activity. The digital and physical information access is limited to job responsibilities of the loan officers and the use of information is monitored, for example the use of the online BKR tool. The software application ''Micronet'' which is used to generate the screening report is secured with authorization controls, completeness controls and accuracy controls. Besides the systems protects against file and screening report updates.

The information and communication can be improved in order to reduce the hidden actions of the loan officers. Currently information systems are in place to identify and record pertinent operational and financial however for management purposes not on a timely base. Besides, employees are not required to sign of the accuracy on generated financial and operational reports which decreases the reliability, and therefore the relevance of the provided information. The organization employs various forms of communications appropriate to its needs. Unfortunately there is a discrepancy in the direct and face to face communication between management and loan officers which very limited due to the separate working locations and geographical classification.

The monitoring of the management is appropriate but can be further improved to directly contribute to the principal agent problems at Qredits. Management provides the opportunity for feedback and monitoring on performance objectives next to the monitoring by operational reports. This is for example done during the monthly loan officer meetings and periodically individual meetings. The management could start using information from external parties to verify internal documentation, for example the actual payment behavior of customers can be verified with the risk estimation of the loan officer. Discrepancy is that the documentation in loan files is not periodically checked on completeness and correctness and internal control on this particular aspect is low. Effective are the periodically executed evaluations of internal control by someone not involved in the operational activities.

Even though the evaluation shows that a large part of the COSO SPC framework is currently present at Qredits some crucial elements of the framework providing a direct solution to the adverse selection of the entrepreneurs and the moral hazard of the loan officers are not yet present. The largest share of the discrepancies is related to the hidden actions of the loan officer. These missing elements are crucial because the loan officer is the key link in an effective achievement of the organizational objective. Next to that, Qredits is a small organization with limited resources and possibilities for extensive control measures and customized information systems. This makes it important for the organization to make a solid trade-off between the opportunity costs for extending the control measures and the actual effect on employee performance. Further research could be conducted on the correct functioning of the control measures and procedures, since this research is limited to measurement based on presence of the control measures and procedures providing a direct solution.

Another approach for this research would have been a COSO SPC framework focused approach. Starting from a broader organization wide internal control perspective narrowed down by the use of principal agent problems directly effecting the achievement of the organizational objective as indentified by application of the principal agent theory at the current situation of Qredits. Using this approach to derive a solution for the principal agent problems and achieve effective internal control over the loan officers. Using this approach the importance of the indirect elements, which was discovered during the execution of this research, would have been anticipated up front.

Even though a combination of these two theoretical concepts might sound logical at first, not much research has been conducted on a combination of these two concepts. This makes the research somewhat unique and provides a good introduction for further research on this topic, perhaps with a different approach towards combing these two concepts and considering the effects of the indirect elements of the integrated COSO SPC framework.

Referring back to the research objective the theoretical perspective provided by the principal agent theory interwoven with the COSO SPC framework to derive the direct solutions to the problems and the adjusted evaluation tool used to assess the current situation at Qredits provides an insight for the management on how to be in control of the employee performance in order to effectively reach the organizational objective. The next chapter complements this by elaborating on a set of recommendations addressing the main discrepancies from the evaluation tool.

8. Recommendations

Based on the research results and conclusions the following set of recommendations is conducted to provide a direct solution to the current adverse selection and moral hazard and consequently increase the employee performance of the loan officers in order to effectively reach the organizational objective. The below mentioned recommendations are an addition to the current risk estimation process and control activities of the organization.

1. Primary information of the entrepreneur

Both qualitative and quantitative methods are used to determine the risk of a loan application. Unfortunately, the information used for the risk estimation is primary based on the information provided by the entrepreneur. Qredits could use more information provided by alternative sources such as third parties, historical data and expertise of other loan officers. Having this additional information available makes it possible to verify provided information by the entrepreneurs for both, personnel risk factors such as payment behavior and entrepreneur competences and business risk factors such as market position and financial forecasts. This additional information reduces the adverse selection in the principal agent problem between the loan officer and entrepreneur.

2. Measurement of team production

The management established complementary operational objectives for the loan officers. However the default standard of five percent in the second operational objective is a team production and the contribution of the loan officer is hard to measure. This problem could be addressed with the approach of McAfee and McMillan (1989) by increasing the reward by 1/ number of team members for every additional individual effort. The involved employees receive for every additional effort a part of the reward, In this case the loan officer, risk manager and Collection department. This approach provides a direct solution to the moral hazard between the management and the loan officer.

3. Incentive schemes to motivate

The previous recommendation only applies if the organization uses a motivational incentive scheme based on the operational objectives to prevent hidden actions and align the interests of the loan officer. The two operational objectives of the loan officers can be combined in one incentive scheme and directly related to the performance measurement. This incentive schema can also be based on a fixed salary complemented with a variable bonus system. The loan officer receives this bonus based on the number of loans sold per year, relating the first operational objective of loan sales complemented with a reduction of the bonus based on the accountable part of default over the total amount of outstanding debt per loan officer. This approach aligns the interests of the loan officer with the interests of the management and therefore decreases the effect of moral hazard.

4. Code of conduct

Implementing and actively communication a code of conduct provides the loan officers with information concerning desired behavior based on internal values. Signing the document commits the loan officer to the desired behavior and provides a written document of reference in case of violation. This recommendation provides a direct contribution to the solution of the hidden actions.

5. Loan officer supervisor

Increasing the coordination and supervision of the loan officers provides more insight and information on the daily activities of the loan officers. Appointing a loan officer supervisor increases direct contact and makes it harder to undertake hidden actions. However, appointing a loan officer supervisor is a direct trade-off between the opportunity costs and the impact on the effective achievement of the organizational objective and the efficiency of the organization.

6. Direct face to face communication

In addition to the last recommendation the management could also decrease the information asymmetry, and therefore the moral hazard, by increasing direct face to face communication. The management can frequently visit the loan officers in their own environment and even join them with an entrepreneur visit. Again increasing direct face to face communication should be a trade-off between the opportunity costs and the increase in the performance of the loan officers.

7. Periodically check on loan files

After a loan has been generated the loan file ends up in the archive. In order to prevent hidden actions and possible collusion between the loan officer and the risk manager, the management could implement periodic checks and evaluations on the stored generated loans. This helps to reduce hidden actions and assess the effectiveness of current control activities.

8. Increase accuracy and timing of internal reporting

The last recommendation is based on the information provided for internal reporting and reviewing. This information is not always on time and the internal reports are not signed by the person who generated the internal report. Having a responsible person for the internal reports and having this person sign off the reports makes the person responsible for the accuracy and timing. This decreases the information asymmetry between the loan officer and the management and contributes to the reduction of hidden actions.

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Appendix 1: Organizational structure Micro financiering Nederland

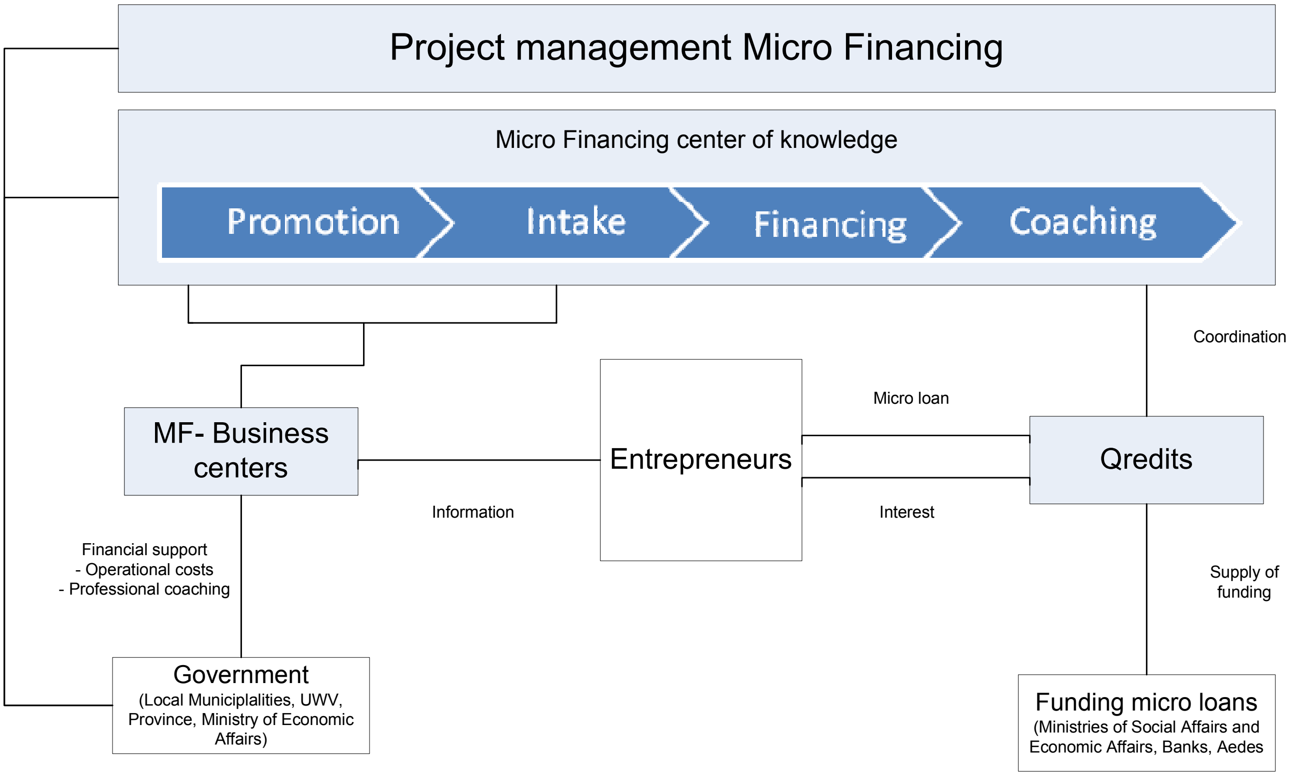

Figure 1: Organizational structure of Micro financiering Nederland.

Appendix 2: Organizational chart Qredits

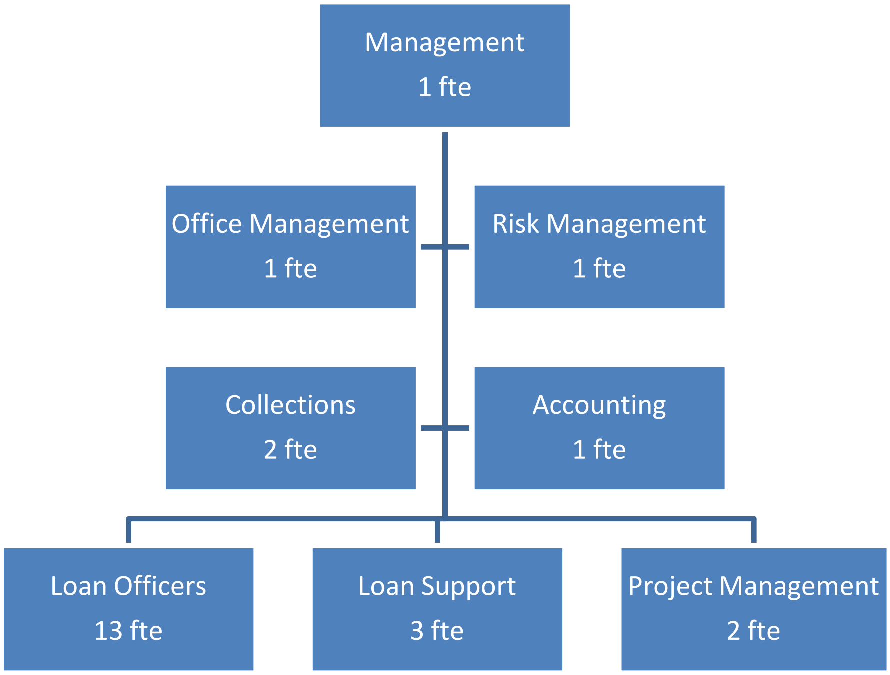

Figure 1: Organizational chart Qredits

Appendix 3: Evaluation Tool

Risk Assessment

1. Establishment of operational objectives

1. Operational objectives flow from and are linked with the organizational wide objectives and strategic plans.

• All significant operational activities are adequately linked to the organizational wide objectives and strategic plans.

2. Operational objectives are complementary, reinforce each other, and are not contradictory.

• Operational objectives are reviewed periodically to assure that the objectives have continuous relevance for the loan officers.

• The two different objectives for the loan officer are complementary and do not contradict each other.

3. The operational objectives are relevant to the operational processes.

• Objectives have been established for all the key operational activities of the loan officers and the support activities. The two objectives focus on the number of loans generated per year and the actual default percentage of the total amount of outstanding debt, both directly derived from the organizational goal and yearly measured on the 31st of December.

• The first objective is the number of approved loan applications; this is the primary activity of the loan officer. This objective may cause some serious disturbance for the average risk of the portfolio. The management has an interest in finding the good risk applications from the total amount of applications and generating only those applications.

• This is captured in the second objective of the loan officers stating that the total amount of outstanding debt in the portfolio of the loan officer may not be larger than five percent of the total amount of outstanding debt in the portfolio. This objective is established to limit the risk of the generated loans.

• Unfortunately the second objective can only be measured as a team production of the loan officer, risk manager and Collection department and on top of the information provided through this objective is ex-ante.

• The objectives are consistent with effective (little) past practices and performance of the organization, and are consistent with any industry or business norms that may be applicable to the operations. Both, the management and the Risk Manger have over 15 years of experience in the industry.

4. Operational objectives include measurement criteria.

• The number of approved loans can easily be measured by the management by the use of the data concerning the generated loan derived from Micronet.

•The default percentage is calculated from the total amount of outstanding debt in the portfolio of the loan officer and may not exceed five percent.

5. Resources are adequate relative to the operational objectives.

• The resources needed to meet the objectives have been identified and allocated to the loan officers such as a sufficient number of loan applications, access to the Qredits risk estimation methodology, company car for home visits and office supplies.

6. All levels are involved in establishing the operational objectives.

• The objectives are based on a discussion between the management, risk manager and the loan officers.

2. Risk Identification

1. The loan officer comprehensively identifies risk using various methodologies as appropriate.

• Qualitative and quantitative methods are used to identify risk and determine relative risk rankings by the use of a standardized screening reported linked to a quantification using a risk rating called QR (Qredits rating) where one is a good risk and four a bad risk.

• This screening report contains topics such as, personal competences, payment behavior, market analysis, financial forecast and private financial liabilities.

• The risk estimation is primary based on information provided by the entrepreneur.

• The screening procedure includes to some extent third parties to verify information provided by the entrepreneurs, such as BKR tooling, tests for entrepreneurial competences and information from similar applications.

• How risk is to be identified, ranked, analyzed, and mitigated is standardized and communicated to the loan officers.

• Risk identification and discussion occur in monthly meetings between management, Risk management and loan officers.

• Risks that are identified at the level of the loan officer are brought to the attention of the risk manager and management.

3. Risk Analysis

1. After the risks have been identified, the loan officer undertakes a thorough and complete analysis of the possible effect.

• The organization has established a formal process to analyze risks, structured by a fixed screening procedure.

• Criteria have been established for determining low, medium, and high risks.

• Appropriate levels of management and employees are involved in the risk analysis and every screening procedure is checked and signed off by the risk manager.

• The risks identified and analyzed are relevant to the operational objectives.

• Risk analysis includes estimating the risk’s significance.

• Risk analysis includes estimating the likelihood and frequency of occurrence of each risk and determining whether it falls into the low, medium, or high-risk category.

2. The organization has developed an approach for risk management and control based on how much risk can be accepted.

• The screening approach is designed to keep risks within levels judged to be appropriate and sets the standards for the tolerable risk level and deviation is only possible with motivation.

4. Managing Risk during change

1. The organization has mechanisms in place to anticipate, identify, and react to risks presented by changes in governmental, economic, industry, regulatory, operating, or other conditions that can affect the achievement o operational objectives.

• All activities within the department that might be significantly affected by changes are considered in the process.

• Routine changes are addressed through the established risk identification and analysis processes.

• Risks resulting from conditions that are significantly changing are addressed at management level within the organization so that the full impact on the organization is considered and appropriate actions are taken.

Control Activities

5. General control activities

1. The management reviews at operational level. Management reviews actual performance against targets.

• Management reviews performance reports, analyze trends, and measure results against targets.

• Both management and the risk manager review and compare financial, budgetary, and operational performance to planned results.

2. Management of Human Capital. The organization effectively manages the Loan Office workforce to achieve results.

• The organizational performance system is given a high priority by management and it is designed to guide the workforce in achieving the organizational objective.

• The compensation system is not adequate to motivate the loan officers, and no incentives or rewards are provided to encourage loan officers to perform at maximum capability. However there is one small incentive program for all employees. Based on the team production of the operational objectives the loan officers earn points which can be used for presents from a web shop. This program was initiated to solely increase performance awareness, not to directly motivate the loan officers.

• Procedures are in place to ensure that personnel with appropriate competencies are recruited and retained for the work, including a formal recruiting and hiring plan with explicit links to skill needs the organization has identified.

• Loan officers are provided orientation, training, and tools to perform the duties and responsibilities, improve performance and enhance capabilities.

• There is qualified but limited supervision provided to the loan officers to ensure that the activities are correctly carries out and the operational objectives are being met.

• The organization has no written code of conduct explaining the organizational values and providing a document of reference in case of violation by a loan officer.

3. Information Processing. The organization employs a variety of control activities suited to information processing systems to ensure accuracy and completeness.

• Edit checks are used in Micronet to control the data entry.

• Screening reports are generated in numerical sequences

• File totals are compared with control accounts.

• Exceptions or violations indicated by other control activities are examined, motivated and acted upon.

• Access to data, files, and programs is controlled.

4. Physical control over vulnerable assets. The organization employs physical control to secure and safeguard vulnerable assets.

• Physical safeguarding policies and procedures have been developed, implemented, and communicated to all loan officers.

• Assets that are particularly vulnerable to loss, theft, damage, or unauthorized use, such as cash, inventories, and equipment are physically secured and access to them is controlled.

• Assets such as cash, inventories, and equipment are periodically counted and compared to control records and exceptions examined.

• Cash is maintained under lock and key and access to them is strictly controlled.

• No identification numbers are fixed to office equipment and other portable assets.

• Inventories and finished items/data files are stored in physically secured area and protected from damage.

• Access to facilities is restricted and controlled during nonworking hours.

5. Performance measures and indicators. The organization has established and monitors performance measures and indicators.

• Performance measures and indicators have been established throughout the loan officer department at team and individual level. Performance measurement assessment factors are evaluated with the loan officers to ensure linkage to objectives. However measurement related in the case of default percentage to a team production.

• The incentives comply with law, regulations, and ethical standards but are not appropriate for achieving the operational objectives.

• Actual performance data are continually compared against expected results and differences are analyzed.

• Comparisons are made relating different sets of data to one another so that analyses of the relationships can be made and corrective actions can be taken if necessary.

6. Segregation of Duties. Key duties and responsibilities are divided or segregated among different people to reduce the hidden actions.

• No one individual is allowed to control all key aspects of a loan generation, except management and in case of absence the risk manager.

• Responsibilities and duties involving the screening procedure and loan generation are separated among different employees with respect to authorization, approval, processing recording and making the payments.

• Bank accounts are reconciled by employees who have no responsibilities in the screening process and the approval of this process.

• Management is aware that collusion can reduce or destroy the control effectiveness of segregation of duties and, therefore, is especially alert for it and attempts to reduce the opportunities for it to occur.

7. Access restrictions to and accountability for resources and records. Access to resources and records is limited and accountability for the custody is assigned.

• The risk of unauthorized use or loss is controlled by restricting access to resources and records only to authorized personnel.

• Accountability for funding resources, records custody and use is assigned to specific individuals.

• Access restrictions and accountability assignments for custody are periodically reviewed and maintained.

8. Documentation. Internal Control and screening reports and other significant documentation are clearly documented.

• Written documentation exists covering the operational internal control structure and screening procedure.

• All documentation is readily available for examination.

• The documentation for internal control is limited to administrative policies and screening manuals.

• Not all documentation, paper and electronic, are properly managed, maintained, and periodically updated. This is especially the case after the loan application is approved.

6. Application control activities

1. Appropriate policies, procedures, techniques, and mechanisms exist with respect to each of the loan officers activities.

• All relevant objectives and associated risks for each significant activity have been identified in conjunction with conducting the risk assessment and analysis function.

• The management has identified the actions and control activities needed to address the risks and directed the implementation of tools such as the standardized screening report.

2. The control activities identified as necessary are in place and being applied.

• Control activities described in policy and procedures manual are actually applied and applied properly.

• loan officers understand the purpose of internal control activities.

• The management reviews the functioning of established control activities and remain alert for instances in which excessive control activities should be streamlined.

• Timely action is taken on exceptions or implementation problems.

3. Control activities are regularly evaluated to ensure that the controls are still appropriate and working as intended.

• The control activities are evaluated whenever there is a reason to, but not on a regular base. This might decrease the effectiveness of the controls.

7. General control activities for Information Systems.

1. Access Control

• The organization classified information resources according to the criticality and sensitivity.

• Resource classifications and related criteria have been established and communicated to the employees and have documented those classifications.

• Resources have identified authorized users, and the access to the information has been formally authorized.

• The organization has established physical controls to prevent unauthorized access.

• The organization monitors information systems access.

2. Application software development and change control

• Information system processing features and program modifications are properly authorized.

• All new or revised software is thoroughly tested and approved by the management before the loan officers start using the new software.

3. System Software control

•The organization limits access to system software based on job responsibilities of the loan officer, and the access authorization is documented.

• Access to and use of system software by the loan officer are controlled and monitored. For example the use of the BKR tool is monitored by the management.

• The organization controls changes made to the system software.

4. Segregation of Duties

• Incompatible duties in the operational process have been identified and integrated in the system software (Micronet and Afas) to segregate those duties.

• Access controls have been established to enforce segregation of duties in the operational process.

5. Service Continuity

• The criticality and sensitivity of computerized operations have been assessed and prioritized, and supporting resources have been identified.

• The organization has taken steps to prevent and minimize potential damage and interruption through the use of data and program backup procedures including offsite storage of backup data as well as environmental controls, staff training, and hardware maintenance.

• Management has developed and documented a comprehensive contingency plan. Therefore the organization can periodically tests the contingency plan and adjusts it as appropriate.

8. Application Control Activities specific for information systems.

1. Authorization Control

• Source documents are controlled and require authorization.

• Source documents are pre-numbered sequentially.

• Key source documents require authorizing signatures such as the ''request for loan approval''

• For the generation of screening reports, control sheets are used providing information such as date, amounts, control number, number of documents, and control totals.

• Independent review of crucial data occurs before it is entered into the application system.

• Data entry fields have restricted access.

• Exception reporting is used to ensure that all data processed are authorized.

2. Completeness Control

• All authorized loans are entered into and processed by the computer.

• Reconciliations are performed to verify data completeness.

3. Accuracy Control

• The organizations' data entry contributes to data accuracy.

• Data validation and editing are performed to identify erroneous data.

• Erroneous data is captured, reported, investigated, and corrected.

• Output reports are reviewed to help maintain data accuracy and validity.

4. Control over integrity of Processing and Data Files

• Procedures ensure that the current version of programs and data files are used during processing.

• Programs do not include routines to verify that the proper version of the data file is used during processing.

• The Micronet application protects against file and screening report updates.

Information and Communication

9. Information

1. Information from internal and external sources is obtained and provided to the management as a part of the organizations' reporting on operational performance relative to established objectives.

• Internally generated information critical to achieving the loan officers objectives, including information relative to critical success factors such as the number of generated loans and the default percentage, is identified and regularly reported to management.

• The loan officers obtain and report to management any relevant external information that may affect the achievement of the operational objectives, particularly related to legislative or regulatory developments and political or economic changes.

• Internal and external information needed by management and the risk manager is reported to them.

2. Pertinent information is identified, captured, and distributed to the right people in sufficient detail, in the right form, and at the appropriate time to enable them to carry out the duties and responsibilities effectively.

• Managers receive analytical information that helps to identify specific actions that need to be taken.

• Information is provided at the right level of detail for management and the risk manager.

• Information is summarized and presented appropriately and provides pertinent information while permitting a closer inspection of details as needed.

• Information is available on a timely basis to allow sustained risk estimation for the risk manager.

• Management and risk manager receive both operational and financial information to help them determine whether the organization is meeting the expected results.

• The appropriate financial, operational and budgetary information is provided for internal reporting however not on a timely base.

10. Communications

1. Management ensures that effective internal communications occur.

• Management provides a clear message throughout the organization that internal control responsibilities are important and must be taken seriously.

• Loan officers' specific duties are clearly communicated to them and they understand the relevant aspects of internal control, how their role fits into it, and how their work relates to the work of others.

• Loan officers are informed that when the unexpected occurs in performing the duties, attention must be given not only to the event, but also to the underlying cause, so that potential internal control weaknesses can be identified and corrected before it can do further harm to the organization.

• Personnel have a means of communicating information upstream within the organization.

• Mechanisms exist to allow the easy flow of information down, across, and up the organization supported by software applications such as Micronet and Afas.

• The loan officers indicate that informal or separate lines of communications exist, which serve as a failsafe control for normal communications.

• Loan officers understand that there will be no reprisals for reporting adverse information, improper conduct, or circumvention of internal control activities.

• Mechanisms are in place for loan officers to recommend improvements in operations, and management acknowledges good suggestions with recognition.

2. Management ensures that effective external communications occur with groups that can have a serious impact on programs, projects, operations, including budgeting and financing.

• Open and effective communications channels have been established with customers, investors and consultants that can provide significant input on quality and design of the core operations.

• Communications from external parties, such as federal agencies, state and local governments, and other related third parties, is encouraged since it can be a source of information on how well the internal control of the operations is functioning.

• Complaints or inquires, especially those concerning the screening procedures are followed up by the management.

• The management makes certain that the advice and recommendations of third party agencies and other auditors are fully considered and that actions are implemented to correct any problems or weaknesses identified in the internal control of the operations.

11. Forms and Means of Communications

1. The organization employs many and various forms and means of communicating important information with the loan officers.

• The management uses effective communications methods, which include policy and procedures manuals, bulletin board notices, conference calls, intranet web pages, e-mail, one on one communication and speeches towards the loan officers.

2. The organization manages, develops, and revises its information systems in an effort to continually improve the usefulness and reliability of its communication of information.

• The mechanism for identifying emerging information needs is based on direct feedback.

• As part of the organizations' information management, improvements and advances in technology are monitored, analyzed, evaluated, and introduced to help the management respond more rapidly and effective concerning the operations of the loan officers.

• The management continually monitors the quality of the information captured, maintained, and communicated as measured by such factors as appropriateness of content, timeliness, accuracy, and accessibility.

• The management supports the development of information technology to provide information which is demonstrated by its commitment of appropriate human and financial resources.

Monitoring

13. Ongoing Monitoring

1. The management has a strategy to ensure that ongoing monitoring is effective and will trigger separate evaluations where problems are identified or systems are critical and testing is periodically desirable.

• Managements' strategy provides for routine feedback and monitoring of performance objectives.

• The management emphasizes to loan officers that they have responsibility for internal control and that they should monitor the effectiveness of control activities as a part of the regular duties to reduce adverse selection by the entrepreneurs.

• The management emphasizes to the risk manager that he has responsibility for internal control and that he should monitor the effectiveness of control activities as a part of the regular duties to reduce hidden actions of the loan officers.

• The monitoring includes identification of critical operational support systems that need special review and evaluation such as Micronet, Afas and the exchange between those two.

• Monitoring does not include a plan for periodic evaluation of control activities for critical operational support systems used to control the daily activities of the loan officers.

2. In the process of carrying out the regular activities, employees obtain information about whether internal control is functioning properly.

• Operating reports are integrated or reconciled with financial and budgetary reporting system data and used to manage operations on an ongoing basis, and management is aware of inaccuracies or exceptions that could indicate internal control problems.

• The management compares production, sales, or other operating information obtained in the course of its daily activities to system generated information and follows up on any inaccuracies or other problems that might be found.

• Personnel are not required to sign off on the accuracy of the financial and operational reports and are not held accountable if errors are discovered.

3. Communications from external parties should verify internally generated data or indicate problems with internal control.

• The management recognizes that customers paying the repayments help to confirm the low risk estimations, while bad payment behavior indicates that deficiencies may exist; and these efficiencies are then investigated to determine the underlying causes.

• Communications from customers and monthly statements of account receivable are used as control monitoring techniques.

• Customer complaints about any unfair practices by loan officers are investigated.

• Control activities that should have prevented or detected any problems that arose, but did not function properly, are reassessed.

4. Appropriate organizational structure and supervision help provide oversight of internal control functions.

• Automated edits and checks are used to help control accuracy and completeness of the loan generation.

• Separation of duties and responsibilities is used to prevent hidden actions by the loan officers.

• The auditor is independent, has authority to report directly to the management and is not involved in the operational activities of Qredits.

5. Data recorded by information and financial systems are periodically compared with physical documentation and discrepancies are examined.

• Documentation in loan files is not periodically checked on completeness and correctness.

• Differences between recorded and actual documentation is therefore not corrected and the reasons for the discrepancies resolved are not resolved.

6. Meetings with loan officers are used to provide the management with feedback on whether internal control is effective.

• Relevant issues, information, and feedback concerning internal control raised at training and meetings are captured and used by management to address problems and strengthen the operational control structure.

• Loan officers' suggestions on internal control are considered and acted upon as appropriate.

• Management encourages loan officers to identify internal control weaknesses and report them.

14. Separate Evaluations

1. The scope and frequency of separate evaluations of internal control are appropriate for the organization.

• Consideration is given to the effectiveness of ongoing monitoring when determining the scope and frequency of separate evaluations.

• Separate evaluations are often prompted by events such as major changes in plans and operations.

• Operational sections of internal control are evaluated regularly.

• Separate evaluations are conducted by personnel with the required skills that may include an external auditor.

2. The methodology for evaluating the organizations' internal control is logical and appropriate.

• The separate evaluations include a review of the control design and direct testing of the internal control activities.

• The person performing the evaluations has sufficient understanding of the organizations' objectives operations and activities.

• The person has an understanding of how the organizational internal control is supposed to work and how it actually does work.

• The person analyzes the results of the evaluation against established criteria.

• The evaluation process is not properly documented.

3. Deficiencies found during separate evaluations are resolved.

• Deficiencies are promptly communicated to the individual responsible for the function.

• Serious deficiencies and internal control problems are directly reported to the management.