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Reasons to Budget Throughout the Life Cycles of Swedish IT Companies

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Abstract

Background: The budget is shown to be the most prioritized management accounting tool for companies with scarce resources, while at the same time it is criticized for being time consuming and ineffective. This study uses life cycle theory as a framework to investigate how the budgets can be used in a more efficient and effective way, depending on what life cycle stage the company is in.

Purpose: The purpose of this study is to investigate how commonly budgets are used throughout the life cycle stages of IT companies in Sweden, and whether there is a difference in what reasons to budget are considered the most important in different stages.

Method: By using previous research made on life cycle theory and the reasons to budget as a foundation, this study collects the data using a quantitative method where a survey is sent to a sample of IT companies in Sweden. The answers to the survey lead to results about the budget use, what life cycle stage the respondents consider their company to be in, and how important ten different reasons to budget within the areas control, planning and evaluation are to the individual companies.

Conclusion:

The results show that there is a low budget use among companies in the birth stage, and that the budget use is high for companies in the growth, maturity and revival stages. The increasing budget use follows the increasing number of employees through the stages. The study finds that in general there are no major differences through the stages in what budget reasons are chosen to be most important; control is overall the most important purpose that the budget fulfills. Furthermore, there are some reasons to budget that have been assigned low values of importance across all the stages. Staff evaluation and encouraging innovative behavior are not considered important by the responding companies.

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1. Introduction

In this section the background of budgeting and life cycle theory, and how these two concepts are connected, is outlined. Furthermore, the importance of studying this subject and the research questions of the study are discussed. The chapter concludes with describing the delimitations, definitions of key terms and the structure of the subsequent study.

1.1 Background

Budgeting is a well-known and institutionalized component of companies' management accounting systems (Becker, 2014; Hansen, 2011) and it is considered highly important as the budget has been found to be the most prioritized management accounting instrument when resources are scarce (Granlund & Taipaleenmäki, 2005). However, there has been increasing criticism against the shortcomings of the budget, for example the budget is criticized for being costly to produce and for being ineffective as well as inflexible for companies operating in quickly changing markets (Becker, 2014; Hansen & Otley, 2003; Hope & Fraser, 2003). In spite of the criticism, budgets are still prevalent in many companies (Libby & Lindsay, 2010). A possible reason for why budgets are still applied even though they are being criticized is that budgets can be used for several different purposes, such as planning, control and evaluation (Sivabalan, Booth, Malmi & Brown, 2009).

Existing literature suggests that an important driver of the emergence of management accounting systems, including the budget, is the life cycle stage of the company (Davila & Foster, 2005; Kallunki & Silvola, 2008; Miller & Friesen, 1984; Moores & Yuen, 2001). According to the principles of life cycle theory, as a company develops, it progresses through a series of life cycle stages consisting of different characteristics. Several life cycle models have been proposed by existing literature (Quinn & Cameron, 1983), although Miller and Friesen (1984) have developed a model that is highly supported by existing literature (Moores & Yuen, 2001), consisting of the stages birth, growth, maturity, revival and decline. According to Miller and Friesen (1984), the organizational structure, information processing and decision-making style in companies depend on which stage it is in. This is supported by

subsequent research (Kallunki & Silvola, 2008; Miller & Friesen, 1984; Moores & Yuen, 2001), which concludes that the life cycle stage of a company affects its' structure, decision-making and strategy. When a company moves through these stages it becomes increasingly complex, and in order to be effective, the company needs to adapt the budgets according to these stages (Kallunki & Silvola, 2008; Miller & Friesen, 1984).

1.2 Problem

In their studies, Moores and Yuen (2001) and Granlund and Taipaleenmäki (2005) suggested contradicting insights about whether budgets are expected to change throughout the stages of the life cycle. According to Moores and Yuen (2001), the budgets need to follow the company's development through the stages and change with it, while Granlund and Taipaleenmäki (2005) suggested that the variation in the budgets over the company lifetime is not related to the life cycle stage. Because of the contradictive findings proposed by Moores and Yuen (2001) and Granlund and Taipaleenmäki (2005), some clarification about the relationship between budgeting and the life cycle stages of companies is required.

Davila and Foster (2005) and Granlund and Taipaleenmäki (2005) found that the operational budget is one of the first components of the management accounting system that companies adopt when they are in the startup phase, and that the budget is prioritized when there are not enough resources to use a large number of management accounting tools. Due to the findings about early adoption of budgets by start-up companies made by Davila and Foster (2005) and Granlund and Taipaleenmäki (2005), this study suggests that budgets can be expected to be found throughout the entire life cycle of a company. However, no prior studies have used life cycle theory as a framework for analyzing companies' reasons to budget, therefore the aim of this study is to remedy this gap in research.

1.3 Purpose

The research questions to be answered in this study are the following:

- 1. How commonly are budgets used in Swedish IT companies in the different life cycle stages?*
- 2. Do Swedish IT companies use budgets for different purposes depending on which stage of the life cycle they operate in?*

This study contributes to existing literature by furthering the understanding of how companies can enhance their use of budgets in order to employ it more efficiently throughout their entire lifetime. Increased knowledge about what purposes the budgets fulfill in the life cycle stages may help the companies to focus their efforts towards the budgeting purposes that are most important within each life cycle stage. In addition to this, the study gives insights in how for example consultants, management accountants and business incubators might help the companies to structure their budgeting most effectively. The contribution to management accounting research made by this study is to provide an understanding of whether the life cycle stage might be a factor affecting the companies' decision to use budgets, as well as the decision of how to use budgets.

1.4 Delimitations

The study investigates IT companies that operate in Sweden, hence the study's findings may not apply to companies operating in sectors other than IT or outside of Sweden. The only management accounting tool taken into consideration for the purpose of answering the research questions is the budget, hence all other management accounting tools will be excluded.

1.5 Definitions of Key Terms

1.5.1 Budget

The study defines budget according to Wallander (1999, p. 410) as follows: "A budget is a forecast and a plan for the company for the next year, and in some cases for the next two,

three or even five years. The budget is built on forecasts concerning the general development of demand, prices, exchange rates, wages, costs and so on.”

1.5.2 Life Cycle Theory

The definition for life cycle theory used in this study is proposed by Quinn and Cameron (1983, p. 33) as follows: “... changes that occur in organizations follow a predictable pattern that can be characterized by developmental stages. These stages are (1) sequential in nature, (2) occur as a hierarchical progression that is not easily reversed, and (3) involve a broad range of organizational activities and structures.”

1.6 Structure of the Report

Section 2 elaborates on the life cycle theory and the reasons to budget. Section 3 describes the chosen methodology, the process of collecting and analyzing the data and finally the reliability of the study. Section 4 presents the results from the study. Section 5 consists of the analysis, where the findings from the study are connected to previous research and the budgeting and life cycle frameworks. Section 6 summarizes the major findings connected to the research question. Section 7 discusses the contributions and limitations of the study and includes suggestions for further research.

2. Literature Review

In this chapter, the study provides a thorough understanding of relevant previous research made within the areas of life cycle theory and the reasons for why companies use budgets.

2.1 Budgeting

2.1.1 Reasons to Budget

Existing literature has not reached a consensus on a specific definition of the budget (Ekholm & Wallin, 2000). According to Horngren, Datar and Rajan (1994) the reasons for a company to budget are for coordination of activities, implementation of plans, communication, authorizing actions, motivation, budgetary control, and performance evaluation. Ekholm and Wallin (2000) claimed that budgets are used for allocation of funds, coordination of operations, internal communication, implementation of the organization's strategy, and the motivation of employees. However, this study is focusing on the findings made by Sivabalan et al (2009), who found ten possible reasons to budget. These ten reasons can be divided into three groups; control, planning and evaluation (see table 1).

2.1.1.1 Control

The control category includes two reasons for companies to budget: *controlling costs* and *monitoring device by the board of directors*. Since the budget contains information about spending expectations, it can be used as a tool for the company to control its costs by keeping to the budget goals (Sivabalan et al, 2009). Budgets can also be used by the board of directors to monitor the company, and as a tool to communicate financial expectations between managers and directors. According to Baysinger and Butler (1985), budgets are used as a formal approval of what is expected in the future period and provide a regular review by the board of the directors of the performance against the budget.

2.1.1.2 Planning

The category of planning purposes encompasses six reasons to budget: *formulating action plans, coordinating resources, encouraging innovative behavior, managing production capacity, determining required selling prices and providing information to external parties.*

Formulating action plans implies constructing a detailed plan of actions describing how the budget will be met. Coordinating resources is the process of requesting and negotiating budget funds. Before the budget period, the managers in the company inform the departments about the funding constraints. The company's different departments then request a budget that is negotiated and decided by senior managers, after which this budget must be adhered to by all departments (Sivabalan et al, 2009). Budgets can also be used to encourage innovative behavior, which is done by allocating funds to a certain area of the organization to encourage a certain behavior (Sivabalan et al, 2009). The budget may also be created to help manage production capacity and determine the required selling price. The sixth reason to budget for an organization is providing information to external parties.

2.1.1.3 Evaluation

The third group of budget reasons described by Sivabalan et al (2009) is evaluation and it contains two reasons to budget; *staff evaluation and business unit evaluation.* These two reasons to budget are often combined into one reason in other studies. However, Sivabalan et al (2009) argued that these are two separate reasons for companies to budget. If the company is operating in a highly uncertain environment, budgets can be an irrelevant performance benchmark; hence budgets might not be used to evaluate staff under these circumstances. Nevertheless, the company may still want information about how a certain department has been performing relative to the budget (Sivabalan et al, 2009).

Table 1: Ten Reasons to Budget

Budget reasons		
Control	Planning	Evaluation
Control of costs	Formulation of action plans	Staff evaluation
Board of directors' monitoring	Coordination of resources	Business unit evaluation
	Encouraging innovative behavior	
	Management of production capacity	
	Determining required selling prices	
	Provision of information to external parties	

Source: Adapted from Sivabalan et al (2009).

2.1.2 Criticism against Budgeting

Existing literature has criticized budgets on the following grounds: it is claimed to be ineffective due to inflexibility for companies operating in changing environments, and inefficient since it consumes an extensive amount of time and costs for companies (Becker, 2014). Further, budgets are suggested to promote dysfunctional behavior such as gaming and a command-and-control culture (Becker, 2014). Budgeting is also said to be an obstacle for creativity and innovation (Hope & Fraser, 1997). Hope and Fraser (2003) even believe that it should be eliminated as it is fundamentally flawed, and budgets have by Welch and Welch (2005, p. 189) been called “the most ineffective practice in management”. Gurton (1999) also stated that budgeting is “a thing of the past”, while Wallander (1999) called it an “unnecessary evil”. However, Libby and Lindsay (2010) found that a majority of companies were not planning to abandon the budgets in the near future. In fact, a majority of these firms would try to improve their budgeting system instead of abandoning it, and most firms found value in their budgets (Libby & Lindsay, 2010).

2.2 Life Cycle Theory

2.2.1 Life Cycle Models

Literature has put forward a number of life cycle models. Downs (1967) suggested that organizations move through three stages where they attempt to reach legitimacy, growth and formalization. Lippitt and Schmidt (1967) claimed organizations go through birth, youth and maturity. Scott (1971) found that organizations progress from highly informal, to more formal, and finally to highly diversified. Unlike the models proposed by Downs (1967), Lippitt and Schmidt (1967) and Scott (1971), Greiner (1971) suggested a model consisting of five stages and that the organization progresses to the next stage by going through a revolution - a crisis that takes the company to the next stage in order to solve the problems in the previous stage. Lyden (1975) considered different functional problems in four stages, and Adizes (1979) focused on important activities in the stages such as producing results, acting entrepreneurially, administering formal rules and procedures, and integrating individuals into the organization. Miller and Friesen (1984) concluded that companies not only move through developmental stages, but that within the stages of birth, growth, maturity, revival and decline there are also various configurations of organizational characteristics, such as strategy, structure, leadership and decision-making style. Life cycle models normally consist of some version of an entrepreneurial birth stage, a growth stage with increasing commitment and then a maturity stage, with more complexity and formalization along the stages and adaption to the different challenges in the stages.

Critics of the life cycle theory have claimed that it has not been sufficiently empirically proven in literature whether there really is a pattern of growth and development in companies (Davila, Foster & Li, 2009). The assumptions of the theory about companies moving through a specific developmental path have also been criticized; instead Aldrich (1999) suggested that the development is dependent upon external factors in the company environment as well as actions taken by the company. Nevertheless, Moores and Yuen (2001) claimed that life cycle theory is supported both conceptually and empirically by existing literature and provided evidence in their study of predictability in how organizations move through the life cycle stages. Due to the support Miller and Friesen's (1984) life cycle model has gained by literature, this study considers their model to be appropriate to use as a framework for studying the reasons to budget in companies.

2.2.2 Characteristics of Companies in the Life Cycle Stages

Miller and Friesen (1984) proposed a life cycle model that consists of five stages; birth, growth, maturity, revival and decline (see appendix A).

In the birth phase, the company is still very entrepreneurial and is being controlled by the owner. This leads to a centralized power and decision-making as well as a simple and informal structure.

The growth phase is characterized by trying to achieve sales growth. The structure is more formal, and some authority is delegated to middle management and no longer solely concentrated to the owner of the firm.

Following the growth phase comes the maturity phase, with more stable operations and less innovation, leading to more formality, bureaucracy and conservatism. The focus is on efficiency rather than increasing sales.

The revival stage is the next step, where the level of innovation increases again as the company tries to expand in a dynamic market place. The company is large in size and since differentiation increases, it is divided into divisions, leading to a need for more advanced control and planning systems in order to communicate and process information.

Finally, there is the decline phase where there is consolidation within the market, conservatism, less profitability and less innovation. The structure is very formal but with less sophisticated information processing systems and decision-making.

2.2.3 Stage Transition

As companies develop through the life cycle, the size of the company and the competition in the market increase, which lead to increasing complexity of the administrative functions, the organizational structure and the decision-making (Miller & Friesen, 1984). Furthermore, Moores and Yuen (2001) claimed that companies respond to complexity in the environment by adjusting their budgets. Since the market is expected to become increasingly complex during the company lifetime, the management accounting system, including the budget use, becomes more formal across the life cycle development to meet this complexity. More

formalization implies a greater focus on information management, communication, control, goal setting and efficiency (Quinn & Cameron, 1983). In addition, the increasing number of employees causes a need for more formal communication and new accounting procedures for the company to remain in control (Davila & Foster, 2005; Greiner, 1972). Miller and Friesen (1984) found that the number of employees is related to both life cycle stage and the sophistication of budgets due to the increased complexity in the company throughout the stage transition.

Granlund and Taipaleenmäki (2005) have found that the budget is the starting point for birth companies' management accounting systems. Not only is it the prioritized control tool in case of scarce resources, but it is also required by external investors to make sure that the firm meets their expectations. Davila and Foster (2005) have found a positive association between adopting budgets and company growth.

As for the growth stage, Moores and Yuen (2001) and Granlund and Taipaleenmäki (2005) did not agree on how formality is expected to affect the budgeting. According to Moores and Yuen (2001), formality, and the associated budget use, is expected to be high in the growth stage, while Granlund and Taipaleenmäki (2005) found that budgets are not used more in the growth stage. Instead, budgets are used less due to resource constraints being common in the growth stage.

During the maturity and revival stages, there is a higher focus on formal control than in the other stages because of the increased competition in these stages, which reduces profitability, and increased diversification in the products and the market (Kallunki & Silvola, 2008). The company needs control systems to be cost-efficient and profitable in this environment (Kallunki & Silvola, 2008; Miller & Friesen, 1984). Additionally, literature suggests that larger organizational size of companies in maturity and revival phases lead to higher complexity of tasks, introducing a need for management control systems such as budgets to coordinate subunits of the company (Chenhall & Langfield-Smith, 1998; Kallunki & Silvola, 2008). Maturity and revival stage companies are also suggested to have more resources to develop and use management accounting systems (Kallunki & Silvola, 2008).

Contrasting to the other stages, in the decline stage the importance of the information processing systems, communication tools and decision-making functions diminish as the structure of the company becomes less complex again (Miller & Friesen, 1984).

3. Method

This chapter describes the method the study has chosen to answer the research questions. The chapter also discusses the sampling of companies, the design of the study and the process of data collection. Further, there is a presentation of how the authors of the study have analyzed the data, as well as the reliability and validity of the study.

3.1 Research Approach

For the purpose of answering the research questions of this study, a quantitative research approach is applied. In order to examine how the reasons to budget are distributed throughout the sample using a predetermined framework of life cycle theory, the study considers a quantitative method to be most appropriate. To be able to make inferences about whether the reasons to budget are connected to the life cycle stage, an online survey is distributed to a randomly selected sample via email. The decision to conduct the research through an online questionnaire is made as it is an efficient and effective method when gathering a large amount of data under time constraint (Bourque & Fielder, 2002), which is necessary to be able to execute this study.

3.2 Research Sample

The study has selected the sample by using the database Amadeus. The search criteria chosen to get the desired population are “Sweden” for location, and “Computer programming, consultancy and related activity” for industry. This leads to a collection of 24 200 IT companies in Sweden. The list of the population is then divided based on the number of employees in order to make sure that the survey is sent out to companies of different sizes in terms of the number of employees. This study groups the employees based on criteria from Statistics Sweden (n.d.); 0 employees, 1-9 employees, 10-49 employees, 50-249 employees and more than 250 employees. Out of the population of 24 200 companies, 1 300 companies are sampled, evenly distributed within the number of employee categories. To increase the ability of the sample to represent the population, the study randomizes the list of companies

using a function for this purpose in the Amadeus database. The randomization of the sample is further elaborated on in section 3.6.

3.3 Implementation of the Study

The randomized sample from the Amadeus database is exported to Excel where the study compiles the email addresses from the companies into a list that is used for the distribution of the survey. The authors of the study collect the email addresses of the sampled companies manually by searching for the contact information on the companies' websites. Email addresses of 897 companies are collected, which is a reduction from the total sample of 1 300 companies, due to insufficient contact information in some of the companies' web pages. The email addresses are exported into a contact list in the survey software used for the study, Qualtrics. When the link to the online questionnaire is sent out to the sample, 8 emails bounces and 174 emails are excluded due to duplicates of emails where there is the same email address to several subunits of the same corporate group included in the sample. Following this, 715 companies receive the link to the online questionnaire. Together with the link to the online questionnaire, information about the purpose of the study and contact information to the authors of this study, in case of further questions, is sent to the entire contact list. The survey is open for submission of answers during three weeks between 27 March 2018 and 17 April 2018. During this period the study sends out three reminders to the sampled companies.

3.4 Survey Design

Firstly, the survey consists of a number of background questions. In the first question, the respondent is asked to indicate yes or no for whether the company uses a budget. In the second question, the respondent chooses what position he or she hold within the company from the choices CEO, CFO, accountant, accounting assistant or other, where the respondent states their title by text. The last background question consists of choosing the number of employees in the company where the intervals are based on Statistics Sweden's (n.d.) categories of 0 employees, 1 to 9 employees, 10 to 49 employees, 50 to 249 employees and 250 or more employees.

Secondly, there is a self-categorization variable for choosing the life cycle stage of the company. The respondent is asked to study a table (see appendix A) summarizing a number of criteria for each life cycle stage and choose the stage for birth, growth, maturity, revival or decline that corresponds most to the company they work for. Previous findings have shown that companies vary greatly in size and age within the respective stages, making these variables inappropriate for deciding life cycle stages (Auzair & Langfield-Smith, 2005; Kazanjian & Drazin, 1990). Instead, Auzair and Langfield-Smith (2005) and Kazanjian and Drazin (1990) suggested that self-categorization is an accurate approach for categorization of life cycle stage. Therefore this method is used for the purpose of this study.

Finally, there is a section about what purposes the budget fulfills in the company. The question consists of ten statements based on the reasons to budget as proposed by Sibavalan et al (2009), and the respondent is asked to indicate how important each specific reason is for the company by choosing an answer on a six-point Likert scale within the range “Not important” to “Very important”.

See Appendix B for the survey questions and accompanying options as formulated in the survey.

3.5 Analysis of Data

In order to analyze the answers in the survey, the choices to the questions are coded into numerical values. See Appendix C for a summary of the variables used.

From the 52 answers to the questionnaire, the study retrieves and analyzes several descriptive statistics. Further, the data is analyzed by computing percentages of the answers in each question. The study contemplates the answers to the first question whether the company uses a budget more closely by separating it into groups based on number of employees and life cycle stage respectively. The responses are then divided into five groups depending on what life cycle stage the respondent considers the company to be in, and the study compares the median of the ten reasons to budget for each group to make inferences about which reasons are considered more important.

In order to explain the findings, the authors of this study investigate the financial statements from 2016 by the companies that have answered that they use budgets. The values are collected from AllaBolag.se (n.d). Firstly, the sampled companies are firstly divided into groups based on the life cycle stage. Secondly, the values for size of net sales, growth in net sales, number of employees, stock market listing, age and number of divisions or subunits, are compared as these characteristics have been suggested to be related to the life cycle stages (Kallunki & Silvola, 2008). Since this study is made using a self-categorization variable as proposed by Auzaur and Langfield-Smith (2005) and Kazanjian and Drazin (1990), these variables need to be studied in order to investigate if they might explain any of the findings of the study.

3.6 Reliability and Validity

The quantitative survey method used in this study is commonly applied in research as it is practical when collecting a large amount of data (Bourque & Fielder, 2002). However, there are some disadvantages to the method that are taken into consideration when conducting this study.

Firstly, the method has been criticized for affecting the reliability of the data, which implies a need to construct the survey carefully to minimize these risks (Young, 1996; Van Der Stede, Young & Chen, 2005). Before sending the questionnaire to the sample, the study conducts a pilot test to ensure that there is no loss of responses due to insufficient or unclear formulations of the questions in the survey. Before the survey is sent to the sample companies, a representative within the industry with insight in the company budget is contacted via email to give advice on wording and structure of the survey.

Secondly, Bourque and Fielder (2002) stated that another problem that might occur is difficulty in creating a sample that represents the population. This has been carefully considered in the sampling for the study, to make sure that the results are as reliable as possible. The sample is drawn from the entire population of IT companies in Sweden and randomized using a function for this purpose in the database from which the sample is created.

Thirdly, Borque and Fielder (2002) further stated that the respondents might not be qualified to answer the questions as intended. To remedy this problem, the study includes a background question in the survey about what work title the respondent hold. This facilitates the study to determine whether the responses are reliable as they come from respondents within the right position of the company. The responses to this control question show that all participants are qualified to answer the survey by being CEO, CFO, accountant or owner, leading to no answers being excluded due to ignorance of the subject as far as the authors of this study know.

Finally, Young's (1996) findings about the risk of low response rates for surveys is also considered and met by sending out several reminders to the respondents that had not previously answered the survey, using the email function in the survey software Qualtrics. This increases the participation, although the response rate is still low. This affects the analysis of the results in the study since a low response rate implies that the findings from the selected sample cannot be generalized as representative for the entire population.

4. Results

In this chapter the study presents the findings from the data collection consisting of responses from 52 IT companies in Sweden to the survey. Descriptive statistics relating to the answers to the survey (see Appendix B for the survey questions) are presented and the study further evaluates which reasons to budget are most prevalent in the respective life cycle stages.

4.1 Descriptive Statistics

4.1.1 Proportion of Companies Using Budgets

On the question about whether the company has a budget or not, 63 % or 33 respondents indicate that they do use budgets. 37 % or 19 respondents have chosen no.

Table 2: Budget Use

Q1: Does your company use a budget?		
	<i>N</i>	<i>Percentage</i>
Yes	33	63,46 %
No	19	36,54 %
Total	52	100 %

4.1.1.1 Budget Use in Relation to the Number of Employees

The findings indicate that with fewer employees the company is less likely to use a budget. In the group of companies with 0 employees, none of the 3 companies have a budget. In the group 1 to 9 employees the budget use is starting to increase, but still 75 % of the companies are not using budgets. For the group of 10 to 49 employees, the numbers change entirely. Here, 92 % do use budgets, which means that all companies except one are using budgets. The group of 50 to 249 employees shows that budgets are still highly used with 85 % answering yes. Merely one company with more than 250 employees has answered the survey, and this company uses budgets as well.

Table 3: Budget Use and the Number of Employees

Budget use compared to number of employees						
Number of employees	Use of budget				Total	
	No		Yes			
	<i>N</i>	<i>Percentage</i>	<i>N</i>	<i>Percentage</i>	<i>N</i>	<i>Percentage</i>
0	3	100 %	0	0 %	3	100 %
1 to 9	12	75 %	4	25 %	16	100 %
10 to 49	1	8,33 %	11	91,67 %	12	100 %
50 to 249	3	15 %	17	85 %	20	100 %
250 or more	0	0 %	1	100 %	1	100 %
Total	19	36,54 %	33	63,46 %	52	100 %

4.1.1.2 Budget Use in Relation to Life Cycle Stage

When the study analyzes the budget use based on the life cycle stages, one company is excluded since the respondent has not indicated what life cycle stage he or she consider the company to belong in. This results in 51 responses to analyze. The results show that 82 % of the companies in the birth stage do not use budgets. However, in the growth stage the results show the opposite, 81 % of the companies have answered that they do use budgets. In the maturity stage there is a slightly lower amount of companies that are using budgets, 73 %, but still a majority that do. Three companies have indicated that they are in the revival stage, and all of them are using budgets. In the decline stage there is only one company, and this company does not use budgets.

Table 4: Budget Use and the Life Cycle Stages

Budget use compared to life cycle stage						
Life cycle stage	Use of budget				Total	
	No		Yes			
	<i>N</i>	<i>Percentage</i>	<i>N</i>	<i>Percentage</i>	<i>N</i>	<i>Percentage</i>
Birth	9	81,82 %	2	18,18 %	11	100 %
Growth	4	19 %	17	81 %	21	100 %
Maturity	4	26,67 %	11	73,33%	15	100 %
Revival	0	0 %	3	100 %	3	100 %
Decline	1	100 %	0	0 %	1	100 %
Total	18	35,29%	33	64,71 %	51	100 %

4.1.2 Number of Employees

When the survey asks the respondents to choose an option corresponding to the number of employees in the company, 6 % or 3 respondents indicate that they have 0 employees, 31 % or 16 respondents have 1 to 9 employees, 23 % or 12 respondents have 10 to 49 employees, 38 % or 20 respondents have 50 to 249 employees and 2 % or 1 respondent has more than 250 employees. This shows that even though the survey is distributed evenly to the companies in the various employee groups, the companies with 0 employees and the companies with more than 250 employees are not evenly represented in the results as 92 % of the answers are from companies with 1 to 249 employees.

Table 5: Number of Employees

Q3: How many employees are there in your company?		
	<i>N</i>	<i>Percentage</i>
0	3	5,77 %
1 to 9	16	30,77 %
10 to 49	12	23,08 %
50 to 249	20	38,46 %
250 or more	1	1,92 %
Total	52	100 %

4.1.3 Distribution of Life Cycle Stages

For the survey question about what life cycle stage the respondent considers the company to be in, 21 % or 11 respondents consider their company to be in the birth stage, 40 % or 21 respondents chose the growth stage, 29 % or 15 respondents indicated the maturity stage, 6 % or 3 respondents the revival stage and only one respondent, 2 %, sees their company to be in the decline stage. This shows that the vast majority, 90 %, of the companies answering the survey are in the birth, growth or maturity stages.

Table 6: Life Cycle Stages

Q4: Based on the criteria given in the table, what life cycle stage would you assess your company to be in?

	<i>N</i>	<i>Percentage</i>
No answer	1	1,92 %
Birth	11	21,15 %
Growth	21	40,38 %
Maturity	15	28,85 %
Revival	3	5,77 %
Decline	1	1,92 %
Total	52	100 %

4.1.4 Reasons to Budget within the Life Cycle Stages

4.1.4.1 Birth

As mentioned in section 4.1.1.2, 18 % of the companies in the birth stage are using budgets. This means that only two of the companies in the birth stage are included when studying the reasons to budget. Control of costs is the most important reason to budget for these two companies; they consider this reason to be important as the median is 5 (see Table 7). However, board of directors' monitoring, coordination of resources, formulation of action plans, encouraging innovative behavior, determining required selling prices and providing information to external parties all have a median of 4 and are considered to be quite important. The least important reason to budget is management of production capacity, with a median of 2 it is considered to be slightly important. Further, the reasons to budget that are considered least important by the birth companies belong to the section evaluation. Staff evaluation and business unit evaluation are considered somewhat important, since they only received a median of 3.

4.1.4.2 Growth

In the growth category a total of 17 companies in the study are using budgets. The control aspect is the far most important one for the growth companies (see table 7). Both control of cost and board of directors' monitoring are considered important with medians of 5, which are the highest medians in all three sections. In the planning section, encouraging innovative

behavior is considered somewhat important with a median of 3 and providing information to external parties is considered to be slightly important with a median of 2. For the evaluation category, business unit evaluation receives a median of 4 and is considered to be quite important. However, staff evaluation is considered to be slightly important with a median of 2.

4.1.4.3 Maturity

The majority of the companies in the maturity stage are using budgets, which leads to a total of 10 companies being included when studying the reasons to budget. The most important reason to budget for these companies is control of cost. As indicated in table 7, this reason receives a median of 6 and is considered very important. Board of directors' monitoring and business unit evaluation is also considered to be important for these companies, with a median of 5. Similar to previous stages, encouraging innovative behavior and providing information to external parties are considered somewhat important with a median of 3. Staff evaluation receives a median of 2 and is therefore considered to be a slightly important reason to budget.

4.1.4.4 Revival

For the revival stage, there are 3 answers to the survey, out of which all the companies are using budgets. These companies consider managing production capacity from the planning section and business unit evaluation from the control section to be the most important reasons to budget, both with a median of 5 (see table 7). Board of directors' monitoring and coordination of resources receive a median of 4 and are considered quite important for the companies in the revival stage. The other reasons to budget are not considered to be as important.

4.1.4.5 Decline

Only one of the respondents indicates that the company is in the decline stage and further states that they are not using budgets.

Table 7: Reasons to Budget

Reasons to budget				
	Birth stage	Growth stage	Maturity stage	Revival stage
	<i>Median</i>	<i>Median</i>	<i>Median</i>	<i>Median</i>
<i>Control</i>				
Control of costs	5	5	6	3
Board of directors' monitoring	4	5	5	4
<i>Planning</i>				
Formulation of action plans	4	4	4	2
Coordination of resources	4	4	4	4
Encouraging innovative behavior	4	3	3	2
Management of production capacity	2	4	4	5
Determining required selling prices	4	4	4	3
Provision of information to external parties	4	2	3	2
<i>Evaluation</i>				
Staff evaluation	3	2	2	2
Business unit evaluation	3	4	5	5

4.2 Financial Statements

The financial statements in Appendix D show that there are no similarities or differences within the variables size of net sales, growth in net sales, age and number of divisions that can explain the findings about budget use and the ranking of importance of the reasons to budget within the life cycle stages. Size, age and growth vary across the life cycle stages without any pattern. The only similarity between the companies is that they are not listed on the stock exchange, with only one exception. However, the lack of pattern in the studied variables is not prevalent only for one life cycle stage, but for the entire sample, hence it cannot explain any of the findings when comparing the life cycle stages.

5. Analysis

The results about budget use and the reasons to budget are in this section connected to previous research presented in the literature review. Further, the study elaborates in this chapter on specific findings relating to each life cycle stage and discusses a few budget reasons where the findings require additional attention.

5.1 Analysis of Findings Related to the Life Cycle Stages

5.1.1 Birth

Granlund and Taipaleenmäki (2005) claimed that budgeting is the most prioritized management accounting system when resources are scarce, and Davila and Foster (2005) found that budgeting is the first management accounting system to be adopted by companies in the birth stage. However, the findings of this study show that this is not the case for the investigated sample; 82 % of the birth companies in this study are not using budgets at all. The low use of budgets may be explained by the fact that almost all of the companies that have indicated that they do not use budgets have a maximum of 9 employees (see Appendix E). For companies with few employees there is no need for budgets to have control over the operations and the information sharing in the company, so budgets might not be adopted until there is an increase in the number of employees in the company (Davila & Foster, 2005; Greiner, 1972). The findings of this study do not support previous research stating that birth companies use budgets early in their life cycle.

Further, Davila and Foster (2005) found a positive association between the adoption of operating budgets and company growth for birth companies. Considering that the study reveals a low budget use for birth companies, these companies might benefit from introducing budgets in order to faster reach the growth stage of their life cycle.

5.1.2 Growth

The findings of this study support the claim made by Moores and Yuen (2001), that there is high budget use in the growth stage due to increased complexity. 81 % of the studied IT-companies in the growth stage are using budgets, which is a large increase compared to the birth stage where only 18 % of the companies are using budgets. A large majority of these companies have indicated that they have 10-49 employees or 50-249 employees (see Appendix E), which can be expected considering that they are in the growth stage where more employees are needed compared to the birth stage. Previous research stating that an increased number of employees leads to a higher need for budgets due to increased complexity (Greiner, 1972; Miller & Friesen, 1984) is supported by the findings of this study, where the increased budget use follows an increase in the number of employees. Furthermore, the findings of this study do not support prior findings suggesting that budgets are used less in the growth stage due to resource constraints (Granolund & Taipaleenmäki, 2005).

In the growth stage the most important reasons to budget are to control costs and board of directors' monitoring, both of the reasons belong to the control section. Due to the broadening of product market scope and innovation in product lines that characterize this stage, as well as the need for the companies to remain in control of their growing operations, the high ranking of these two reasons to budget are expected. Considering the need for innovation in product lines in the growth stage (Miller & Friesen, 1984), the budget reason of encouraging innovative behavior should be valued as important in this stage. However, the findings imply that this is not the case in the studied sample. None of the companies considered encouraging innovative behavior to be highly important. This budget reason is further discussed in section 5.2.3.

5.1.3 Maturity

Similar to previous stages, control of costs is considered to be the most important reason to budget in the maturity stage. This stage is characterized by high stability and a focus on efficiency rather than innovation (Miller & Friesen, 1984). To be as efficient as possible these companies need to allocate their resources in an economical way, which explains the high importance assigned to cost control.

Three reasons are not considered to be important by the sample in this study; encouraging innovative behavior, providing information to external parties and staff evaluation. According to Miller and Friesen (1984), maturity and decline are the stages with least innovation, which explains why the results of this study show that encouraging innovative behavior is not considered to be important in this stage. Staff evaluation is considered low in importance throughout all the stages and is further discussed in section 5.2.3.

5.1.4 Revival

As expected, there is a high use of budgets in the revival stage, 100 % of the companies are using budgets. However, only three respondents consider their company to be in the revival stage, so the answers cannot be assumed to be generalizable to the population.

In this stage the most important reasons to budget are managing production capacity and business unit evaluation, while control of costs receives a lower median than in the other stages. According to Miller and Friesen (1984) companies in the revival stage are in need for more advanced control and planning systems in order to communicate and process information, due to the large size and differentiation. This explains why managing production capacity is one of the most important reasons to budget for these companies.

According to Miller and Friesen (1984), the companies in the revival stage have a higher number of subunits than companies in the other stages, since diversification increases throughout the stages (Miller & Friesen, 1984). The increased number of subunits implies a greater need for systems that can evaluate the divisions (Chenhall & Langfield-Smith, 1998). This study legitimizes this need by disclosing a progressing increase in the importance assigned to the budget reason business unit evaluation throughout the life cycle stages. The companies in the birth stage consider it to be least important while the companies in the maturity and revival stages consider it to be most important.

In addition to this, Miller and Friesen (1984) mentioned that innovation characterize the revival stage. However, this does not correspond to what the companies answer to the survey. Only one of the sampled companies in the revival stage considers encouraging innovative behavior to be an important reason to budget, the other two companies do not consider it to be

important. Although, due to the low number of respondents within this stage no further inferences about the findings within this stage can be made.

5.1.5 Decline

Only one of the respondents states that the company is in the decline stage. Hence, this result is not suggested to represent the population of IT companies in Sweden and is therefore not analyzed in this study.

5.2 Further Analysis of Selected Findings

5.2.1 Budget Use

The research made within this study show that there is a high use of budgets throughout the stages growth, maturity and revival. The high budget use can be explained by an increase in the number of employees compared to the birth stage, as previous research has found the number of employees to be a variable that affects the use of budgets (Davila & Foster, 2005; Greiner, 1972; Kallunki & Silvola, 2008). The findings show that the majority of the companies with 0-9 employees do not use budgets (see Appendix E), which may be explained by the fact that with fewer employees it is still possible for managers to communicate with their employees in informal ways. When the number of employees increases to 10 or more, most companies studied in this research have budgets. It is likely that the increased number of employees leads to a higher complexity in the company, amplifying the need for these companies to use the budget as a tool to communicate with their employees and make sure that control over the operations remain (Greiner, 1972; Miller & Friesen, 1984).

Kallunki and Silvola (2008) further suggested that there is a higher use of management accounting systems, such as budgets, in the maturity and revival stages due to increased competition, diversification and size of the firm. This study shows that there is a high use of budgets in the maturity and revival stages, although this is the case in the growth stage as well. Companies in the growth stage generally do not have the same characteristics when it comes to competition, diversification and size as maturity and revival companies (Miller and Friesen, 1984), so this study can conclude that competition, diversification and size are not entirely explaining why there is a high budget use in the growth, maturity and revival stages.

This study has found no evidence that the maturity and revival stages demand more control systems such as budgets than the growth stage.

5.2.2 Provision of Information to External Parties

The results show that there is a relatively low importance assigned to the budget reason provision of information to external parties by all companies. The fact that this reason has a low median is explained by that the majority of the companies in the study are not listed on a stock exchange. Provision of information is normally required to a higher extent for listed companies than for unlisted companies. Davila and Foster (2005) and Granlund and Taipaleenmäki (2005) have found that the introduction of external investors is a reason to have more advanced budgets in order to meet the investors' need for information. This study shows that using budgets for provision of information to external parties is not common for the unlisted companies in the sample.

5.2.3 Encouraging Innovative Behavior

Granlund and Taipaleenmäki (2005) concluded that fast growing IT companies face a dilemma between freedom, which help to foster creativity and flexibility, and control, which is needed in the quickly changing environment that IT companies operate in. The findings of this study show that the budget reason of encouraging innovative behavior is not considered important by the companies in the sample. However, it is possible that the companies use other management accounting tools that are better suited to encourage the employees' innovative behavior than budgets do. This is in line with the finding made by Henttu-Aho and Järvinen (2013), concluding that organizations may complement their budgets with other tools and techniques to serve the traditional budget functions such as planning, control and evaluation.

5.2.4 Staff Evaluation

Another reason to budget that is not considered important by the companies across all stages in this study is staff evaluation. Previous research (Fisher et al, 2002) states that budgets are an important tool for staff evaluation, since it makes employees increase their effort and task performance. Contrasting to this, Sivabalan et al (2009) have found that budget reasons

relating to evaluation is not considered as important as control and planning reasons by companies. The results of this study show that staff evaluation is not considered important in any of the life cycle stages. One reason for this could be the highly uncertain environment IT companies is operating in. According to Sivabalan et al (2009) budgets can be an irrelevant performance benchmark for companies operating in highly uncertain environments, hence budgets might not be used to evaluate staff under these circumstances. Another reason for this might be that IT companies are generally knowledge intensive companies that are selling services, and the output for this is more difficult to measure compared to the budget targets than it is for companies producing products. Therefore, staff evaluation as a reason to budget might be more important in other industries.

5.2.5 Determinants of Life Cycle Stage Categorization

Kallunki and Silvola (2008) found that there are large variations within the stages when it comes to size and age, and that the number of employees is associated with the life cycle stages. The results of this study support the findings made by Kallunki and Silvola (2008), as the only variable in terms of size that follows an increasing pattern for this sample is the number of employees. The study finds no pattern in size or age across the life cycle stages in the companies' financial statements. Hence, the financial statements do not provide any evidence that size in other terms than number of employees or age affect what life cycle stage the companies are in.

6. Conclusion

This section provides a conclusion of the findings from the study, along with answers to the research questions.

The aim of this study is to further the understanding of how the budget use develops throughout companies' life cycles, and whether the reasons to budget are different across the life cycle stages. The framework used by the study to fulfill this aim is Miller and Friesen's (1984) life cycle model, which incorporates the stages birth, growth, maturity, revival and decline (see appendix A). Transitioning through the stages, the companies become increasingly complex and are expected to have a higher need for management accounting systems such as budgets. The reasons to budget that are studied within the life cycle stages are ten reasons (see table 1) within the categories control, planning and evaluation as proposed by Sivabalan et al (2009).

The results of the survey show that budgets are highly used in the companies across the life cycle stages, with an exception for the birth stage where the budget use is low. The budget use increases as the number of employees increases. This corresponds to the expectations of the study, since previous research (Greiner 1972; Miller & Friesen, 1984) found that that with a higher number of employees there are higher demands on the company to have more advanced budgets in order to communicate and control the operations.

Additionally, this study concludes that overall the companies in the different life cycle stages use the budgets for very similar purposes. Using the data retrieved in this study, there is no possibility to make any clear models of reasons each stage considers most important. From this research, the study cannot state if there is a certain set of budget reasons that is more or less relevant for each stage judging by the actual use of the budgets. However, the study can make inferences about some reasons being more important for some stages, which should be focused on by the company when developing the budget.

Firstly, birth companies have highly varying needs for budgets since they are usually structured in different ways this early in their life cycle, but they should use budgets more than they do in order to faster develop into the growth stage as suggested by Davila and Foster (2005). Secondly, the answers from the growth companies clearly show that they consider budgets to be important since the use is so high. The high importance assigned to control of costs is also in line with the stage characteristics stated by Miller and Friesen (1984), that there is a need for the companies to remain in control of their increasing costs due to the quick innovation and expansion of sales. Thirdly, the mature companies use the budgets for control of costs and board of directors' monitoring, which also can be expected according to the model. This study suggests that control of costs and board of directors' monitoring are the most important ones for this stage in order to reach the higher efficiency strived for. Fourthly, the low response rate for the revival companies leads to no clear conclusions, but the findings suggest that there are some reasons with a higher result that correspond to the characteristics of this stage. These reasons are management of production capacity and board of directors' monitoring, which are the purposes to budget that companies in the revival stage should focus on. Finally, no analysis can be made for the decline stage since only one respondent answer that their company belong to this stage.

7. Discussion

This chapter discusses the contributions and the limitations of the study and concludes with suggestions for further research.

The aim of this study is to contribute to the management accounting literature about how budgets are used in companies throughout the company's life cycle stages. The reasons to budget have not yet been studied through the framework of life cycle theory, and the findings contribute to further the knowledge of how budgets can be used with different focus across the life cycle stages in order to aid the operations of the company. In order to help the companies use their budgets in more efficient ways, managers and management accounting consultants can use the findings to revise the budgeting process according to the life cycles stages. Research about how budgets are used may in the long run improve the satisfaction of budgets as it may suggest what areas of the budgeting process need more improvement. An improved budgeting process is not only beneficial for the companies, but by extent also for external stakeholders who need the company to have effective budgets that support the company's operations.

There is a number of possible limitations associated with the selected methodological approach; insufficient design of the study, selection of a sample that do not represent the population, unqualified respondents and a risk of low response rate. This is further discussed in section 3.6. Measures are taken to counteract these limitations, but in spite of several reminders the response rate to the survey remains low and is therefore a limitation to the study. The analysis of the study is for this reason not suggested to be applicable to the entire population of IT companies in Sweden, but rather shows the characteristics and opinions of the sample.

Additionally, the decision to focus on IT companies leads to the results not being transferrable to other industries. The IT sector is operating in an uncertain and innovative environment providing mainly services, whereas many other industries do not share these characteristics and might for this reason use the budget for other reasons.

The results of this study open up for several issues to be closer investigated in further research. The findings that the budgets are not commonly used for encouraging innovative behavior or staff evaluation raise the question of what other management accounting tools IT-companies use and how these different tools are configured in order to aid the companies to meet their management accounting needs.

Further, performing in depth interviews with representatives from the IT industry about the companies' use of budget and the budgeting process should provide additional insights to the results of this study. With adequate time and resources, a longitudinal approach where the researcher follows several companies and their budgets through their life cycle development would most likely give plenty of interesting findings within the field.

8. References

- Adizes, I. (1979). Organizational passages—Diagnosing and treating lifecycle problems of organizations. *Organizational Dynamics*, 8(1), 3-25.
- Alla Bolag. (n.d.). Företagsinformation om alla Sveriges bolag. Retrieved May 18, 2018, from <https://www.allabolag.se/>
- Aldrich, H., & Ruef, M. (2006). *Organizations evolving* (2nd ed.). London; Thousand Oaks, Calif.: SAGE.
- Auzair, S., & Langfield-Smith, K. (2005). The effect of service process type, business strategy and life cycle stage on bureaucratic MCS in service organizations. *Management Accounting Research*, 16(4), 399-421.
- Baysinger, B., & Butler, H. (1985). Corporate governance and the board of directors: Performance effects of changes in board composition. *Journal of Law, Economics, & Organization*, 1(1), 101-124.
- Becker, S. (2014). When organisations deinstitutionalise control practices: A multiple-case study of budget abandonment. *European Accounting Review*, 23(4), 1-31.
- Bourque, L., & Fielder, E. (2003). *How to conduct self-administered and mail surveys* (2nd ed., Survey Kit). Thousand Oaks, Calif.: Sage Publications.
- Chenhall, R., & Langfield-Smith, K. (1998). Adoption and benefits of management accounting practices: An Australian study. *Management Accounting Research*, 9(1), 1-19.
- Davila, A., & Foster, G. (2005). Management accounting systems adoption decisions: Evidence and performance implications from early-stage/startup companies. *The Accounting Review*, 80(4), 1039-1068.
- Davila, A., Foster, G., & Li, M. (2009). Reasons for management control systems adoption: Insights from product development systems choice by early-stage entrepreneurial companies. *Accounting, Organizations and Society*, 34(3), 322-347.

- Downs, A. (1967). The life cycle of bureaus. In Downs, A. *Inside Bureaucracy*. Boston: Little Brown, 296-309.
- Ekholm, B., & Wallin, J. (2000). Is the annual budget really dead? *European Accounting Review*, 9(4), 519-539.
- Fisher, J., Maines, L., Peffer, S., & Sprinkle, G. (2002). Using budgets for performance evaluation: Effects of resource allocation and horizontal information asymmetry on budget proposals, budget slack, and performance. *The Accounting Review*, 77(4), 847-865.
- Granlund, M., & Taipaleenmäki, J. (2005). Management control and controllership in new economy firms—a life cycle perspective. *Management Accounting Research*, 16(1), 21-57.
- Greiner, L. (1972). Evolution and revolution as organizations grow. *Harvard Business Review*, 50(4), 37.
- Gurton, A. (1999). Bye bye budget. *Accountancy*, 123(1267), 60.
- Hansen, S. (2011). A theoretical analysis of the impact of adopting rolling budgets, activity-based budgeting and beyond budgeting. *European Accounting Review*, 20(2), 289-319.
- Hansen, S., Otley, D., & Van der Stede, W. (2003). Practice developments in budgeting: An overview and research perspective. *Journal of Management Accounting Research*, 15, 95.
- Hansen, S., & Van der Stede, W. (2004). Multiple facets of budgeting: An exploratory analysis. *Management Accounting Research*, 15(4), 415-439.
- Hope, J., Fraser, R. (1997). Beyond budgeting... Breaking through the barrier to the “the third wave” *Management Accounting*, 75(11), 20-23
- Henttu-Aho, T., & Järvinen, J. (2013). A field study of the emerging practice of beyond budgeting in industrial companies: An institutional perspective. *European Accounting Review*, 22(4), 765-785.

- Hope, J., & Fraser, R. (2003). Who needs budgets? Modern companies reject centralization, inflexible planning, and command and control. So why do they cling to a process that reinforces those things? *Harvard Business Review*, 81(2), 108.
- Hornngren, C., Datar, S., & Rajan, M. (2015). *Cost accounting: A managerial emphasis* (15th ed.). Boston: Pearson.
- Kallunki, J., & Silvola, H. (2008). The effect of organizational life cycle stage on the use of activity-based costing. *Management Accounting Research*, 19(1), 62-79.
- Kazanjian, R., & Drazin, R. (1990). A stage-contingent model of design and growth for technology based new ventures. *Journal of Business Venturing*, 5(3), 137-150.
- Libby, T., & Lindsay, M. (2010). Beyond budgeting or budgeting reconsidered? A survey of North-American budgeting practice. *Management Accounting Research*, 21(1), 56-75.
- Lippitt, G., & Schmidt, W. (1967). Crises in a developing organization. *Harvard Business Review*, 45(6), 102-112.
- Lyden, F. (1975). Using Parsons' functional analysis in the study of public organizations. *Administrative Science Quarterly*, 20(1), 59.
- Miller, D., & Friesen, P. (1984). A longitudinal study of the corporate life cycle. *Management Science*, 30(10), 1161-1183.
- Moore, K., & Yuen, S. (2001). Management accounting systems and organizational configuration: A life-cycle perspective. *Accounting, Organizations and Society*, 26(4), 351-389.
- Quinn, R.E., & Cameron, K. (1983). Organizational life cycles and shifting criteria of effectiveness. *Management Science*, 29, 33-51.
- Scott, B. R. (1971). *Stages of corporate development*. Cambridge, MA: Harvard Business School.
- Sivabalalan, P., Booth, P., Malmi, T., & Brown, D. (2009). An exploratory study of operational reasons to budget. *Accounting & Finance*, 49(4), 849-871.

- Statistics Sweden. (n.d.). Företag och anställda (FDB) efter näringsgren SNI2007 och storleksklass. År 2008 - 2017. Retrieved March 07, 2018, from http://www.statistikdatabasen.scb.se/pxweb/sv/ssd/START__NV__NV0101/FD BR07/?rxid=08530531-491e-4b23-88eb-70e8054c1a67
- Van Der Stede, W., Young, M., & Chen, C. (2005). Assessing the quality of evidence in empirical management accounting research: The case of survey studies. *Accounting, Organizations and Society*, 30(7), 655-684.
- Wallander, J. (1999). Budgeting — an unnecessary evil. *Scandinavian Journal of Management*, 15(4), 405-421.
- Welch, J., & Welch, S. (2005). *Winning*. London: Harper, an imprint of HarperCollins, 189.
- Young, M. (1996). Survey research in management accounting: A critical assessment. In A.J. Richardson (ed.), *Research methods in accounting: Issues and debates*, The Canadian General Accountants Research Foundation, Vancouver, 55-68.

Appendices

Appendix A: Characteristics of Life Cycle Stages

Characteristics of life cycle stages					
	Birth	Growth	Maturity	Revival	Decline
Main focus of the stage	High level of innovation	Rapid growth	Focus on efficiency and supplying a well-defined market	Rapid growth	Price cutting, decreasing profitability
	Risk taking	Innovation in product lines	Slower growth	High innovation level	Low level of product innovation
				Risk taking	Demand for products level off
Decision making	Decisive decision-making style	Integrative decision-making style	Hierarchical decision-making style	Flexible decision-making style	Decisive decision-making style
	Dominated by founder, power highly centralized				
Environment and strategy	Niche strategy	More competitive environment	Competitive environment	The environment is very competitive and dynamic	Consolidation of the market
		Broadening of product market scope	Consolidated product market scope	Diversification and movement to unrelated markets	Liquidation of subsidiaries
Structure	Informal structure	Moderately formal structure and formalization of policies	Conservatism	Organization structured into divisions	Risk aversion and conservatism
		Less centralized, functionally organized structure	Formal and bureaucratic structures	Sophisticated control and communication systems, formal structure	Less sophisticated information processing systems
			Moderate centralization	Decentralized for divisional activities but highly centralized for overall strategy making	Very formal and bureaucratic structure
					Moderate centralization

Source: Adapted from Miller and Friesen (1984).

Appendix B: Survey Questions

Q1: Does your company use budgets?

Yes

No

Q2: What is your work title?

CEO

CFO

Accountant

Accounting assistant

Other

If you have chosen "other", please state your title:

Q3: How many employees are there in your company?

0

1 to 9

10 to 49

50 to 249

250 or more

Q4: What life cycle stage would you consider your company to be in based on the criteria given in the table?

Birth

Growth

Maturity

Revival

Decline

Q5: On a scale from 1 - not important to 6 - very important, how important are the following ten reasons to perform budgets for your company?

Control of costs

1 2 3 4 5 6

Not important

Very Important

Board of director's monitoring

1 2 3 4 5 6
Not important Very Important

Formulation of action plans

1 2 3 4 5 6
Not important Very Important

Coordination of resources

1 2 3 4 5 6
Not important Very Important

Encouraging innovative behavior

1 2 3 4 5 6
Not important Very Important

Management of production capacity

1 2 3 4 5 6
Not important Very Important

Determining required selling prices

1 2 3 4 5 6
Not important Very Important

Provision of information to external parties

1 2 3 4 5 6
Not important Very Important

Staff evaluation

1 2 3 4 5 6
Not important Very Important

Business unit evaluation

1 2 3 4 5 6
Not important Very Important

Appendix C: Variables

Definition of variables		
Name	Label	Values
Q1	Budget use	0: No 1: Yes
Q2	Work title	1: CEO 2: CFO 3: Accountant 4: Accounting assistant 5: Other
Q3	Number of employees	1: 0 2: 1 to 9 3: 10 to 49 4: 50 to 249 5: 250 or more
Q4	Life cycle stage	1: Birth 2: Growth 3: Maturity 4: Revival 5: Decline
Q5_1	Control of costs	1: Not important 2: Slightly important 3: Somewhat important 4: Quite important 5: Important 6: Very important
Q5_2	Board of directors' monitoring	1: Not important 2: Slightly important 3: Somewhat important 4: Quite important 5: Important 6: Very important
Q5_3	Formulation of action plans	1: Not important 2: Slightly important 3: Somewhat important 4: Quite important 5: Important 6: Very important

Q5_4	Coordination of resources	1: Not important 2: Slightly important 3: Somewhat important 4: Quite important 5: Important 6: Very important
Q5_5	Encouraging innovative behavior	1: Not important 2: Slightly important 3: Somewhat important 4: Quite important 5: Important 6: Very important
Q5_6	Management of production capacity	1: Not important 2: Slightly important 3: Somewhat important 4: Quite important 5: Important 6: Very important
Q5_7	Determining required selling prices	1: Not important 2: Slightly important 3: Somewhat important 4: Quite important 5: Important 6: Very important
Q5_8	Provision of information to external parties	1: Not important 2: Slightly important 3: Somewhat important 4: Quite important 5: Important 6: Very important
Q5_9	Staff evaluation	1: Not important 2: Slightly important 3: Somewhat important 4: Quite important 5: Important 6: Very important

Q5_10

Business unit evaluation

- 1: Not important
- 2: Slightly important
- 3: Somewhat important
- 4: Quite important
- 5: Important
- 6: Very important

Appendix D: Financial Statements

Financial statements analysis

	Size net sales	Growth in net sales	Number of employees	Listed	Age	Number of subunits
Birth						
Case 1	No info			No	2017	
Case 2	No info			No	1994	
Growth						
Case 3	6 038	140,08 %	10	No	2014	1
Case 4	80 363	-32,54 %	39	No	1989	27
Case 5	26 300	67,99 %	12	No	1986	2
Case 6	7 547	30,14 %	10	No	2012	1
Case 7	119 357	8,78 %	70	No	2002	4
Case 8	38 247	0,90 %	19	No	2001	1
Case 9	43 346	3,87 %	45	No	2012	3
Case 10	7 474	51,08 %	10	No	1990	3
Case 11	83 574	-3,49 %	59	No	2002	4
Case 12	31 797	28,53 %	16	No	2007	3
Case 13	0		0	No	2010	2
Case 14	62 691	-10,59 %	51	No	2008	8
Case 15	81 143	1,12 %	24	No	2007	3
Case 16	91 040	-12,27 %	74	No	2005	3
Case 17	59 152	21,26 %	41	No	2000	3
Case 18	138 096	9,47 %	94	No	2000	5
Case 19	No info					
Maturity						
Case 20	3 423	-66,91 %	2	No	2011	4
Case 21	185 302		112	No	2014	5
Case 22	99 643	163,50 %	116	No	2003	6
Case 23	32 450	7,59 %	27	No	2003	1
Case 24	10 189	11,32 %	8	No	1994	3
Case 25	12 767	33,62 %	9	No	2014	10
Case 26	397	0,00 %	0	No	2008	1
Case 27	206	1,48 %	0	No	2008	1
Case 28	9 859	5,32 %	321	No	2005	3
Case 29	No info					
Case 30	8076	1,45 %	36	No	1999	2
Revival						
Case 31	13 032	11,38 %	24	No	2007	1
Case 32	180 393	25,09 %	102	No	1997	1
Case 33	149 265	-33,33 %	72	No	1989	47

Appendix E: Employees and Life Cycle Stages

Employees and Life cycle stages

Company	Number of employees
Birth	
Case 1	1 to 9
Case 2	50 to 249
Case 3	1 to 9
Case 4	0
Case 5	1 to 9
Case 6	1 to 9
Case 7	1 to 9
Case 8	10 to 49
Case 9	0
Case 10	1 to 9
Case 11	1 to 9
Growth	
Case 12	10 to 49
Case 13	10 to 49
Case 14	10 to 49
Case 15	10 to 49
Case 16	50 to 249
Case 17	10 to 49
Case 18	10 to 49
Case 19	1 to 9
Case 20	50 to 249
Case 21	10 to 49
Case 22	10 to 49
Case 23	50 to 249
Case 24	50 to 249
Case 25	10 to 49
Case 26	50 to 249
Case 27	50 to 249
Case 28	50 to 249
Case 29	10 to 49
Case 30	50 to 249
Case 31	50 to 249
Case 32	50 to 249
Case 33	50 to 249
Case 34	50 to 249
Case 35	1 to 9
Maturity	
Case 36	250 or more
Case 37	50 to 249
Case 38	50 to 249
Case 39	50 to 249
Case 40	1 to 9

Case 41	10 to 49
Case 42	50 to 249
Case 43	1 to 9
Case 44	50 to 249
Case 45	50 to 249
Case 46	10 to 49
Case 47	50 to 249
Case 48	1 to 9
Case 49	10 to 49

Revival

Case 50	10 to 49
Case 51	50 to 249
Case 52	50 to 249

Decline

Case 53	1 to 9
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