Management Accounting and Entrepreneurship in a New Economy Firm
Litium: A single case study

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Abstract

The importance of entrepreneurship has been widely acknowledged by many scholars, however, there is an argument that entrepreneurship tends to pose a unique dilemma with management accounting – a part of management control in organizations. The purpose of this paper is to find a solution for the apparent conflict between management accounting and entrepreneurship through a single case study of Litium – a new economy firm operating in information technology industry. The study of Litium reveals that a simple and solid management accounting is an effective way in order to keep management accounting in harmony with entrepreneurial spirit. This finding goes in line with the suggestion of loosely coupled management control in new economy firms by Lukka and Granlund (2003).

The paper reviews various relevant literatures so as to build a collected framework about management accounting in new economy firms. The framework then provides a guideline for empirical findings and analysis part. We acknowledged that the studies of Lukka and Granlund (2003), Granlund and Taipaleenmaki (2005), Lovstal (2001) and Morris, Allen, Schindehutte, and Avila (2006) are very useful for studying management accounting in new economy firms where entrepreneurship is highly emphasized. In addition, life-cycle perspective is also valuable to understand thoroughly the practice of management accounting in new economy firms. In accordance with the topic and the purpose of our case study, we recognized that qualitative research method is most suitable. Moreover, the interview – one type of qualitative methods – was chosen as a main tool for collecting data in our study since it can provide the authors with important insights into a situation and useful shortcuts to the prior history of the situation.
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1 Introduction

In this chapter, we begin with a section providing the background for the subject. We thereafter elaborate on the problem discussion, problem statement and the purpose of the thesis. We then end the chapter by outlining the design of this thesis.

1.1 Background

1.1.1 The notion of entrepreneurship

Over the last decades the notion of entrepreneurship has become a more central topic in managerial literature (Naldi, 2004). In the early stage, entrepreneurship was mainly conceptualized as individual entrepreneurs (Naldi, 2004), who “use innovation to exploit or create change and opportunities for the purpose of making profit” (Burns, 2005, p. 9). Afterwards, entrepreneurial scholars extended the concept of entrepreneurship to firm-level, which refers to corporate entrepreneurship (Burns, 2005; Kuratko & Welsch, 2004), intraentrepreneurship (Kuratko & Welsch, 2004), organizational entrepreneurship (Lovstal, 2001) and entrepreneurial orientation (Dess & Lumpkin, 2005a). Despite various labels of entrepreneurship, within this study entrepreneurship usually refers to the ability of existing firms to create new combinations, to make the most of commercial opportunities, to innovate and to do things differently in order to enhance the profitability and competitive positions (Burns, 2005; Lovstal, 2001).

In addition, researchers have widely recognized the importance of entrepreneurship in the businesses. More specifically, Wiklund and Shepherd (2005) suggest in their empirical study that “entrepreneurial orientation has a universal positive effect on small business performance” (p. 111). Kuratko & Welsch (2004) further argue that entrepreneurial organizations are significant contributors to economic growth through their leadership, management, innovation, job creation, competitiveness, productivity and creation of new industries. Moreover, according to Lovstal (2001), the capability of being entrepreneurial is becoming more and more important under the contemporary context of increasing market globalization and escalating environmental changes.

Despite the important role, some scholars argue that entrepreneurship is likely to be in conflict with management accounting and control, which according to Anthony (1965) is the useful managerial tool for organizations to keep things in order and to assure resources to be used effectively and efficiently (cited in Collier, 2006).

1.1.2 The conflict between entrepreneurship and management accounting and control

The tension between management control and entrepreneurship has been raised by many scholars (e.g. Morris, Allen, Schindehutte & Avila, 2006; Burns, 2005; Birkinshaw, 2003; Lovstal, 2001). According to Morris et al. (2006), entrepreneurship poses:

[1] While management control is a general term used to describe many approaches and techniques, for instance, formal organization, scheduling, formal meeting, rules and procedures (Lukka & Granlund, 2003), we focus our thesis particularly on one of its important subsets, namely management accounting.
“a unique dilemma for control efforts in companies. In theory, control systems are designed in a manner that facilitates effective outcomes, where these outcomes include risk reduction, elimination of uncertainty, highly efficient operations, goal conformance, and specific role definitions. However, entrepreneurship would appear to be more consistent with an environment that encourages management of uncertainty, promotes risk tolerance, encourages focused experimental, and empowers employees. A paradox results, in that contemporary organizations risk failure if employees operate with few constraints, but they also risk stagnation and ultimate demise if they don’t free up the creative talents of their employees.” (Morris et al., 2006, p. 476).

Sharing the same idea, Lovstal (2001) argues that entrepreneurship and management accounting and control have little in common and may even be in conflict. This tension is explained by the fact that management control, with the aim of reducing uncertainty and inefficiency, corresponds badly with the basic assumptions of entrepreneurial, which are based on uncertainty and ambiguity as well as the requirements of considerable freedom and a large of potential space of action (Lovstal, 2001). Burns (2005) and Birkinshaw (2003) also echo this concern when they point out the paradox of entrepreneurship. According to Burns (2005), most organizational control systems are aimed at eliminating risk and uncertainty – something the entrepreneurial firm must tolerate – and at promoting efficiency and effectiveness – which can be at the expense of innovation that in turn requires organizational ‘slack’ or ‘space’. As a consequence, leaders in an entrepreneurial firm face a crucial dilemma that if they give too much freedom and have little control, anarchy may be the result. Nevertheless, if too little freedom is given, creativity, initiative and entrepreneurship will be stifled (Burns, 2005). In other words, if managers control entrepreneurial actions too tightly, they will constrain the business units. However, if the control system is too slack, it will result in chaos (Birkinshaw, 2003).

The apparent conflict between management control and entrepreneurship has triggered the question of how organizations can manage this duality or how they can be controlled without stifling entrepreneurial processes and entrepreneurial activities. Many researchers have tackled and answered this question quite differently, which leads us to the following research discussion – the primary focus of this study.

1.2 Problem discussion

The literature providing various solutions to the above question is mainly based on two assumptions. The first holds management accounting and control as useful tools for enhancing entrepreneurial activities and hence should be used to achieve entrepreneurship. On the other hand, the second argues that management accounting and control can not do much for or even hinder entrepreneurship and accordingly should be kept to a minimum level in order to leave room for creativity and entrepreneurship.

1.2.1 Management accounting and control: A supportive tool for entrepreneurship

Based on the view that management control systems can be a mechanism facilitating entrepreneurship rather than constraining entrepreneurial mindset, there is an ideal suggesting “balanced control” methods to deal with the stated question (Morris et al., 2006; Ireland & Hitt, 2004). In particular, Morris et al. (2006) recommend an approach of “balanced control” where:
“Clear direction is provided to entrepreneurial initiatives, performance standards are well-specified, experimentation is encouraged, flexibility is allowed within a defined range, and discretion and resource allocation are based on achievement of performance benchmarks that become more exacting as an entrepreneurial initiative evolves” (p.487).

In addition, Ireland and Hitt (2004) argue that the global economy has created a new competitive landscape where events change constantly and unpredictably and opportunities are addressed more effectively through innovation and creativity. Under the new condition as such, strategic leaders who are able to establish controls that facilitate flexible, innovative employee behaviours will earn a competitive premium for their firms. Accordingly, the authors suggest “balanced organizational controls” be an approach to achieve this outcome. In particular, the authors propose a balanced set of strategic and financial controls, which is achieved by using strategic controls to focus on positive long-term results while pursuing at the same time the requirement to execute corporate actions in a financially prudent and appropriate manner (Ireland & Hitt, 2004). With this approach, the authors argue that strategic leaders by using strategic controls can encourage lower level managers to make decisions that incorporate moderate and acceptable levels of risks as well as take advantage of competitive opportunities that develop rapidly in the new competitive landscape. At the same time, financial controls, which are used simultaneously, can help strategic leaders to achieve the outcomes of entrepreneurship not at the expense of short-term financial performance that is critical to successful strategy implementation processes and stakeholders’ satisfaction.

Moreover, other scholars seem to believe that traditional management accounting and control is simply not suitable for organizations trying to simulate entrepreneurship and that introduction of new instruments bringing toward entrepreneurial issues can solve the paradox of management control and entrepreneurship (Lovstal, 2001). For instance, Otley (1999) calls for a wider view of management control, with less emphasis on accounting-based control and proposes a framework for management control systems that concern the issues close to entrepreneurship such as learning organization, employee empowerment, motivation and incentives, goal setting and emergent strategies. Johnson and Kaplan (1987) further emphasize the importance of non-financial measurements because profits can be achieved not only by selling more or producing less but also by supporting a wide variety of activities such as financial entrepreneurship, research and development (R&D), promotion, quality improvement, and humane resources, all of which are vital for companies’ long-term performance (cited in Collier, 2006). As a result, Kaplan and Norton (2001) develop the Balanced Scorecard model which supplements traditional financial measures with criteria that measure performance from three additional perspectives: customers; internal business processes; learning and growth. This model links companies’ short term actions with their long term strategy relating to innovation, development and improvement. Accordingly, this model fits well with the companies who desire entrepreneurship. Intellectual Capital (IC) is another instrument that can facilitate entrepreneurship. According to Mouritsen (1998), in addition to financial measures, IC is concerned with human capital of which the primary purpose is innovation, structure capital referring to the knowledge that belongs to organization as a whole and customer capital including customer-loyalty, product-brands and corporate image. With such considerations, IC is a suitable tool to promote the creativity processes by employees (Mouritsen, 1998) and therefore enhances entrepreneurship. An alternative model that is assumed to support entrepreneurship is Results and Determinants Framework by Fitzgerald, Johnston, Brignall, Silvestro and Voss (1991; cited in Collier, 2006). This approach measures six dimensions consisting of competitiveness, financial performance, quality of service, flexibility, resource utilization and innovation (Collier, 2006). The
common idea of these control systems is to achieve entrepreneurial values by including entrepreneurship as a dimension for which performance measurements are developed.

1.2.2 Management accounting and control: A barrier for entrepreneurship

In contrast to the previous section, there is an argument that management accounting and control may constrain or hinder entrepreneurship and therefore organizations calling for entrepreneurship should move away from control efforts. Generally, there are two methods to achieve this outcome: loosely coupled control approach and coping strategy.

Loosely coupled control systems were proposed by Lukka and Granlund (2003). In particular, the authors suggest that in order to overcome the struggle between control and innovation/flexibility, firms should implement a simple and solid management control which loosely couples the flexibility culture where entrepreneurial activities are enhanced. In other words, management control systems should be “carefully designed and implemented and keep relatively light and simple in order to leave enough room for creativity and flexibility” (Lukka & Granlund, 2003, p. 255). Granlund and Taipaleenmaki (2005) go further to prove this idea by an intensive empirical study on the practice of management control in new economy firms (NEFs), which according to their study are defined as fast growing firms in the information and communications technology business and biotech industry and are characterized by R&D and knowledge intensity, venture capital finance, and uncertain operating environment. These firms also emphasize creativity, informality and a spirit of freedom. The result of this empirical study has gone in line with the suggestion of loosely coupled method when the authors found that new economy firms tended to apply only basic management control which mainly included rolling budgeting and reporting activities and to keep away from both traditional and modern accounting tools suggested in literature (Granlund & Taipaleenmaki, 2005). Among various reasons for this practice is NEFs’ typical characteristic of R&D intensity which highly requires ‘room’ for creativity and innovation.

Alternatively, companies may use a ‘coping strategy’ which merely avoids the activities and instruments related to management accounting (Lovstal, 2001). This strategy appears to be particularly relevant to small businesses with the evidences from several empirical studies such as Bergstrom and Lumsden (1993); Andersson (1995); Winborg (2000); and Lygonis (1993) (cited in Lovstal, 2001). For example, Bergstrom and Lumsden (1993) found that 40% of investigated businesses did not implement any kind of budget and only 43% used key financial ratio technique (cited in Lovstal, 2001). These studies further expressed many small businesses hired external professional firms to handle their accounting activities (Lovstal, 2001).

1.3 Problem statement

Bearing in mind the previous discussion, we come up with the following question, which constitutes the overall problem statement within this thesis:

How can Litium Affärskommunikation AB, a new economy firm, be controlled with the help of management accounting? In which way, management accounting can be used in harmony with entrepreneurship in Litium or this effort is totally impossible.

As a software development company founded in 1998, Litium Affärskommunikation AB (Litium) provides software innovation especially in four business areas: content manage-
ment; web solutions; mobile applications; and project management. It can be seen that Litium is classified as a new economy firm since the company is a fast growing information technology company, holding the second position in the Swedish market. Litium also shares the characteristics of R&D and knowledge intensity, venture capital finance, and uncertain operating environment. These characteristics in turn put exceptional demand on management accounting for decision making, planning, and control. We therefore believe that Litium provides an excellent context for us to investigate our research question.

Even though some entrepreneurship scholars already brought up the issue and tried to find the solution to the apparent conflict between entrepreneurship and control, very little has been known about the management accounting practice in entrepreneurial companies, particularly new economy firms (Granlund & Taipaleenmaki, 2005). Our intention then is to fill this gap with the hope of contributing valuable knowledge on the subject with practical evidences.

1.4 Purpose

In accordance with our problem statement, the main purpose of this study is to describe and analyze the practice of management accounting in Litium. We will further examine if it is possible to use management accounting without stifling entrepreneurial activities and values in this organization.

This overall aim can be fulfilled by:

- Reviewing literature on the subject and discussing previous contribution of relevance for this empirical study.
- Describing management accounting and entrepreneurial activities in Litium.
- Analyzing and explaining the interplay between management accounting and entrepreneurship in the company.
- Identifying critical issues and providing practical recommendations in relation to management accounting and entrepreneurship.

1.5 Outline

The outline of this thesis is categorized into five chapters: introduction; frame of reference; method; empirical findings and analysis; and conclusion.

Introduction: In this chapter, the background is provided to introduce the concept of entrepreneurship and the conflict between management control and entrepreneurship. The background as the starting point will lead to the problem discussion which then is narrowed down into the research statement and the purpose of the thesis. An outline of the thesis is also provided to generate a good overview of the thesis for the readers.

Frame of Reference: In this section, we narrow our focus from management control in general to management accounting in particular by presenting an overview of management accounting, the concept of entrepreneurship and new economy firms (NEFs), and the characteristics of NEFs and their implication for management accounting. Then a collected framework of management accounting within NEFs will be described at the end of this chapter.
Method: In this chapter, we describe and explain how the data for the study were collected and how the data were analyzed. In particular, we will explain why the specific research method was chosen and how the data were gathered, especially through interviewing. The method of analysis and the limitations of our research method will be described thereafter.

Empirical Findings and Analysis: In this section, the results of the study are presented. Then relevant theories and empirical evidences will be used for analyzing the case.

Conclusion: This chapter summarizes the empirical study and analysis. In addition, the answer of research question will be provided as well as the discussion of the authors’ own reflections, recommendations, and implications will then be presented.

2 Frame of Reference

In order to gain an insight about the subject and to search for a problem within the subject, we conducted comprehensive literature studies, which then were used to construct the frame of reference and the method part of this thesis.

We started the research process by reading relevant literature and studies that were collected mainly from the library of Jönköping University. Two examples of important studies, that provided us an insight of management control in new economy firms and entrepreneurial organizations, were Lukka and Granlund (2003) and Lovstal (2001). In addition, we researched more articles that were relevant to the subject of interest through the university library’s e-Journal database, for instance, Elsevier Science Direct for Management Accounting Research and ABI/Inform Global for Journal of Managerial Issues. Two examples of important articles for this thesis were Granlund and Taipaleenmaki (2005) and Morris, Allen, Schindehutte and Avila (2006), both of which then became the main sources in the theoretical part of the frame of reference. Finally, we also searched for related literature by using the keywords for instance management control, management accounting, new economy firms, entrepreneurial organizations, budgeting, performance measurement, etc.

Within this chapter, we will elaborate the frame of reference which has been developed gradually along with the empirical study and analysis process. We begin the chapter by describing an overview of management accounting. This includes the definition and evolution as well as the practices and role of management accounting in organizations. Then we explain the concept of entrepreneurship and new economy firms (NEFs), and describe the characteristics of NEFs and their implications for management accounting. Finally, a collected framework of management accounting within NEFs is presented at the end of this section.

2.1 An overview of management accounting

2.1.1 The definition and evolution of management accounting

Management accounting can be defined in three interrelated functions: planning, decision-making, and control. According to Collier (2006, p. 5), managers use “financial and non-financial information to develop and implement strategy by planning for the future (budgeting); making decisions about products, services, prices and what costs to incur (decision-making using cost information); and ensuring that plans are put into action and are achieved (control)”. 
In addition, the Chartered Institute of Management Accountants also describes the core activities of management accounting including "participation in the planning process at both strategic and operational levels, involving the establishment of policies and the formulation of budgets; the initiation of and provision of guidance for management decisions, involving the generation, analysis, presentation and interpretation of relevant information; contributing to the monitoring and control of performance through the provision of reports including comparisons of actual with budgeted performance, and their analysis and interpretation." (cited in Collier, 2006, p. 8-9).

It is important to note that the development of management accounting began in the Industrial Revolution period when, according to Johnson and Kaplan (1987), the primary focus placed on industries such as textile, steel conversion, transportation, and distribution (cited in Collier, 2006). Management accounting practices therefore related to evaluating the internal process efficiency instead of measuring organizational profitability. Moreover, the authors also suggest that "a management accounting system must provide timely and accurate information to facilitate efforts to control costs, to measure and improve productivity, and to devise improved production processes. The management accounting systems must also report accurate product costs so that pricing decisions, introduction of new products, abandonment of obsolete products, and response to rival products can be made. (p. 4)" (cited in Collier, 2006, p. 7).

However, there is a call for a wider perspective of management accounting and control. According to the contingency approach to management accounting, Otley (1995) points out that there is no universally appropriate accounting system which fits equally to all organizations in all circumstances. Rather, particular features of an appropriate accounting system should depend upon the specific environments in which an organization finds itself. "Thus a contingency theory must identify specific aspects of an accounting system which are associated with certain defined circumstances and demonstrate an appropriate matching." (Otley, 1995, p. 84). Moreover, Kaplan (1995) also suggests that management accounting should be in line with the overall strategic objective of the firm. That is management accounting “…cannot exist as a separate discipline, developing its own set of procedures and measurement systems and applying these universally to all firms without regard to the underlying values, goals, and strategies of particular firms" (Kaplan, 1995, p. 614).

Otley (1994) further argues that traditional management control systems do not encourage flexibility, adaptation and continuous learning, all of which are required by the context and operation of contemporary organizations. It is important to note that the change in the business conditions, especially in the 1990s, requires the change in the design and operation of management accounting and control systems. In particular, changes in business environment include an increasing level of uncertainty which then calls for an adaptation to change, an active involvement, a high self-control and group accountability of people within organizations. While the movement toward reducing the size of organizations requires a narrower range of activities within the business unit and a closer integration between each unit, the trend toward concentration and alliances promotes a significant focus on core business activities and a long-term alliance through outsourcing. In addition, the decline of manufacturing also shifts the focus from traditional manufacturing-based to knowledge-based management accounting and control.

It is apparent that management accounting has moved beyond the traditional, narrow concern of manufacturing toward the wider issues of performance measurement and management. This includes the development of many management accounting techniques for instance value-based management (Economic Value Added); non-financial performance measurement systems (Balanced Scorecard); quality management approaches (Total Quality Management, Just-In-Time, Business Process Re-engineering, and continuous improve-
management processes such as Six Sigma and the Business Excellence model); activity-based management; and strategic management accounting (Collier, 2006).

According to the definition and evolution of management accounting described above, we therefore use the concept of modern management accounting systems that concerns both financial and non-financial aspects which according to Collier (2006) help management to implement strategic decision-making, planning, and control.

2.1.2 The practices and roles of management accounting

According to Collier (2006), management accounting is concerned with the production of accounting information for use by managers who emphasize management decision-making, planning, and control. While planning and control relate to budgeting and budgetary control, decision-making refers to accounting techniques that help making decisions for marketing, operation, human resource, accounting, strategic investment, and performance evaluation.

In relation to marketing decision, the accounting techniques typically relate to cost behavior and pricing. While the latter includes different approaches such as cost-plus pricing, target rate of return, the optimum selling price, special pricing decisions, and transfer pricing, the former refers to the technique of cost-volume-profit analysis. As operation is the function producing goods or services to satisfy customer demand, accounting approaches for operational decisions are therefore primarily concerned with capacity utilization, the cost of spare capacity, the product or service mix under capacity constraints, make versus buy, equipment replacement, the relevant cost of materials, other costing approaches for instance lifecycle, target, and kaizen costing, and cost of quality. Whereas accounting techniques for human resource decision are associated with the cost of labor and the relevant cost of labor, the approaches for accounting decisions are concerned with more traditional accounting focus for instance cost classification, calculation of product or service costs, overhead allocation, absorption costing, and activity-based costing.

Moreover, strategic investment decisions mainly relate to decisions for capital investment and the tools that are typically used to evaluate this investment consist of accounting rate of return, payback, and discounted cash flow. Kaplan and Norton (2001) also develop the Balanced Scorecard approach that emphasizes the strategy-focused organizations to consider not only financial performance but also non-financial indicators relating to customers, internal business process, learning and growth (cited in Collier, 2006). In the extent of performance evaluation, the accounting practices are concerned with return on investment, residual income, the controllable profit, transfer pricing, and transaction cost economics.

Regarding management accounting for planning, the important tool for this purpose is budgeting which according to Collier (2006) provides the ability to implement strategy by allocating resources in line with strategic goals, to coordinate activities and communication between departments, to motivate managers to achieve predefined targets, to provide a means to control activities, and to evaluate managerial performance. In general, the budgets are produced annually and based on a specified level of activities for instance sales volume, sales revenue, or production capacity. They may be displayed in the form of rolling budgets, incremental budgets, priority-based budgets, zero-based budgeting, activity-based budgeting, top-down budgets, and bottom-up budgets. After the budget has been constructed, it is imperative to analyze the impact on cash flow. Thus cash forecasting is considered as a part of planning process which helps ensure that sufficient cash is available to meet the level of activity planned as well as other cash inflows and outflows.
In the extent of management accounting for control, it can be seen in the form of budgetary control the techniques of which are flexible budgets and variance analysis. While flexible budgets are constructed by using standard cost applied with the actual level of business activity, variance analysis is then carried out by investigating the variance between this flexed budget costs and the actual costs (Collier, 2006).

The role of management accounting within organizations can be demonstrated through accounting departments the work of which, according to Mouritsen (1996), can be categorized into five aspects: book-keeping; banking; administrating; controlling; and consulting. According to his study, accounting departments that focus more on the first two activities have a tendency not to involve themselves in organizational activities at large. More specifically, book-keeping merely emphasizes recording financial transactions and maintaining financial database whereas banking tends to concern much about complex cash management.

In contrast, the last three aspects of accounting departments’ work are associated with mediating organizational affairs directly. With the focus on administrating, accounting departments primarily deal with managing customers in the areas of debtor and creditor systems as well as handling simple cash management. Accounting department is concerned with controlling, on the one hand, are likely to mediate the pressures of budgets, to emphasize hierarchical flows of decision-making and control, and to allocate responsibility, rewards and punishments. On the other, accounting department that emphasizes consulting tend to mediate between external customers and internal production constraints, to create specialized ad hoc analyses to fit particular issues and decision situation, to act as intermediaries between production and sales departments, and to organize the lateral interdependencies between inputs and outputs so as to align products and customers with the firms’ activities (Mouritsen, 1996).

The five aspects of accounting departments’ work are therefore the products of an interaction among three parties: accounting departments themselves, line functions, and top management. Their works, particularly consulting and controlling aspects, are demonstrated through budgeting, budgetary control, involvement in hierarchical and lateral decision-making, all of which relate to management accounting practices for planning, controlling and decision-making.

2.2 Entrepreneurship in new economy firms

As briefly mentioned in part 1.1.1, entrepreneurship is associated with the ability to create new combinations of existing products or services, to recognize potential business opportunities, to be creative and innovative so as to enhance the company’s profitability and competitive positions in the market (Burns, 2005; Lovstal, 2001). The important of entrepreneurial orientation (EO) is also emphasized by Wiklund and Shepherd (2005) who point out a strong relationship between EO and the firm’s performance. They also found that the positive relationship between knowledge-based resources and performance was heightened by EO (Wiklund & Shepherd, 2005). In this section, we will go in details by describing the concept of entrepreneurial architecture in the extent of leadership, culture and structure. Moreover, the idea of innovation and creativity as well as the five dimensions of EO will then be explained. We will further describe the definition of new economy firms and the entrepreneurship expressed in these firms afterward.
2.2.1 Entrepreneurship

In this part, we will describe certain important aspects of entrepreneurship displayed within the organization. Beginning with the definition of entrepreneurship, we will then explain three essential elements of entrepreneurial architecture, which include leadership, culture, and structure. Finally, the concept of innovation and creativity as well as the five dimensions of entrepreneurial orientation are presented thereafter.

It is apparent that there are two distinct clusters of thought on the meaning of entrepreneurship, “The first group of scholars focused on the characteristics of entrepreneurship (e.g., innovation, growth, uniqueness, etc.) while the second group focused on the outcomes of entrepreneurship (e.g., creation of value).” (Gartner, 1990; cited in Sharma & Chrisman, 1999, p. 12). Whereas Schumpeter (1934) describes entrepreneurship as “the process of carrying out new combinations”, Gartner (1988, p. 26) suggests that “entrepreneurship is the creation of organizations” (cited in Sharma & Chrisman, 1999, p. 12). Sharma and Chrisman (1999) therefore summarize the definition of entrepreneurship proposed by many scholars (Gartner, 1988; Schumpeter, 1934; Stopford & Baden-Fuller, 1994; and Zahra, 1993, 1995, 1996) as the activity that “…encompasses acts of organizational creation, renewal, or innovation that occur within or outside an existing organization.” (p. 17). Moreover, it is important to note that the conditions that define entrepreneurship are associated with newness in the extent of strategy and structure (Sharma & Chrisman, 1999). While the latter refers to the way in which the company goes about implementing the strategy, the former relates to the way where the company aligns key resources with the environment for instance the company’s core competencies, resource deployment, competitive methods, and the scope of operation at business unit and corporate level (Sharma & Chrisman, 1999).

Burns (2005) also points out that an entrepreneurial architecture is associated with both internal and external focuses. While the latter refers to knowledge sharing with outsiders, flexibility, and fast response, the former relates to creating a strong sense of collectivism rather than individuality among employees. More importantly, both internal and external architectures are based upon mutual support and long-term relationships, trust, mutual-self interest, knowledge and information, and informal rather than formal (Burns, 2005). In addition to the environment, Burns (2005) points out other three influential factors on organization architecture: leadership; culture; and structure of organization.

Timmons (1990) suggests that successful entrepreneurs are “patient leaders, capable of instilling tangible visions and managing for the long haul. The entrepreneur is at once a learner and a teacher, a doer and a visionary.” (cited in Burns, 2005, p. 82). Similarly, Senge (1992) also explains three primary tasks for leaders of learning organizations, which include “designing the organization and its architecture so as to encourage the learning process; being the steward of a vision that inspires staff and is transmitted to others; teaching learning or how to develop systematic understanding of how to approach and exploit change.” (cited in Burns, 2005, p. 82, 83). More importantly, Burns (2005) points out that “The essence of an organization’s culture is the values and beliefs shared by the people in it” (p. 83) and thus the effective leaders need to define a clear vision, to get people to understand the vision through effective communication practices, to guide the development of policies and procedures that support the vision, to encourage the enactment of the vision through their own personal actions – walking the talk, and to show concern and respect for organizational members.

Moreover, Burns (2005) uses Hofstede’s (1981; cited in Burns, 2005) dimensions of culture to further describe an entrepreneurial culture which is concerned with four important aspects: a move from individualism to collectivism; low power distance; low uncertainty
avoidance; and a balance between masculine and feminine dimensions. Particularly, an entrepreneurial culture promotes 'ingroup' cooperation and networks as well as balances the need for achievement from both individual and team, while clearly identifying and creating a feeling of competition against 'outgroup'. In addition to flat structures that can foster open, informal relationships and unrestricted information flows, the firm also has a high level of risk tolerance and a preference for flexibility and empowerment. More importantly, the organization seems to demonstrate both masculine and feminine cultures. While the former emphasizes financial reward with social prestige and recognition the latter focuses more on the importance of quality of life and warm personal relationships. Similarly, it appears that an adaptive firm described by Kuratko, Hornsby and Corso (2004) also relatively shares the same idea with an entrepreneurial organization. According to Kuratko et al. (2004), an adaptive firm tends to handle four challenges relating to a reward system, an environment that allows for failure, flexible operation, and the development of venture teams’ performance. More specifically, an adaptive firm should provide the explicit forms of recognition to employees so as to reward their attempt and initiation of creative ideas. Additionally, the firm should also promote the environment that accepts the challenge of change, innovation, and learning from failure, the flexible operation that supports new technologies, customer changes, and environmental shifts, and the development of teamwork spirit that fosters innovation and creativity.

In relation to the structure of entrepreneurial organizations, Wiklund and Shepherd (2005) suggest that “firms with innovative strategies are likely to have organizational structures that are organic as opposed to bureaucratic and reside in dynamic as opposed to stable environments.” (p. 100). Furthermore, Burns (2005) also points out that the important characteristic of the entrepreneurial environment is ‘change’ as he describes that “In a changing environment where there is high task complexity an innovative, flexible, decentralized structure is needed” (p. 130). It is therefore important to note that organic structures, which are positioned in the domain of entrepreneurial organizations, tend to be flexible, decentralized, more horizontal than vertical, and a minimum of levels within the structures (Burns, 2005). Moreover, the structures also promote authority based on expertise, empower individuals to make decisions, broader spans of control, and foster team-working spirit.

It therefore appears that an entrepreneurial architecture which includes entrepreneurial leader visions to build the culture that promotes learning-orientation, ‘ingroup’ cooperation, and empowerment as well as the organizational structures that are flat, decentralized, more horizontal than vertical structures creates an entrepreneurial environment within the organization. This entrepreneurial context is the most important factor that facilitates creativity and invention. Bolton and Thompson (2000) suggest the close association between invention and creativity; however, they link invention with entrepreneurship if the invention becomes a commercial opportunity to be exploited (cited in Burns, 2005). Burns (2005) also points out that creativity is the starting point for both invention and opportunity recognition and then this creativity is turned to be practical reality through innovation. He also states that “Entrepreneurship then sets that innovation in the context of an enterprise (the actual business), which is something of recognized value.” (Burns, 2005, p. 248).

Particularly, innovation can be categorized into five aspects which according to Schumpeter (1996) include “(1) the introduction of a new or improved product or service; (2) the introduction of a new process; (3) the opening up of a new market; (4) the identification of new sources of supply of raw materials; (5) the creation of new types of industrial organization.” (cited in Burns, 2005, p. 243). In the extent of innovation and risk, Burns (2005) suggests that, according to Ansoff’s (1968) the Product/Market matrix and Bowman and Faulkner’s (1997) additional consideration of core
competency and method of implementation, the lowest-risk strategy of all is market penetration, but in a growth market where gaining market share as quickly as possible is important, this strategy seems to be short-lived (cited in Burns, 2005). While innovation through market development is suitable for companies' core competencies of which lie in the efficiency of existing production methods, innovation through product and process development is appropriate for firms' core competencies of which lie in the building of good customer relationships. Burns (2005) further points out that the highest-risk strategy of all is diversification. Whereas the unrelated diversification is extremely high-risk, the related diversification is safest for firms focusing on innovation and development of close customer relations, both of which are important qualities of entrepreneurial firms (Burns, 2005).

According to Ansoff’s (1968) framework, firms can achieve growth by four options: market penetration; market development; product development; and diversification (cited in Burns, 2005). Market penetration refers to selling more of existing products or services to existing customers or markets, whereas market development relates to finding new customers in a market or seeking out new markets. This may be achieved through selling the existing products to overseas markets or implementing product expansion so as to seek out new markets for similar products. On the one hand, product development may take place in the forms of completely new products, product replacement, and product extension. On the other, diversification which refers to selling new products to new markets may be implemented through backward vertical integration, forward vertical integration, and horizontal integration. Burns (2005) further suggests that mergers and acquisition are frequently used by entrepreneurial firms as a tool for achieving rapid growth and as a short cut to diversification. This strategy allows the firms to speedily enter new product or market areas as well as to gain access to resources such as R&D or a customer base (Burns, 2005).

Creativity can be defined as “…the ability to develop new ideas, concepts and processes. In the business context it is the ability to develop creative, imaginative and original solutions to problems or opportunities that customers face.” (Burns, 2005, p. 284). Burns (2005) suggests that it is important to come up with totally new ways of doing things, rather than implementing merely adaptive, incremental change. He further points out that “for entrepreneurs the focus of their creativity is commercial opportunity leading to new products, services, processes or marketing approaches.” (p. 267). Drucker (1985) also suggests that innovation can be practiced systematically through a creative analysis of change and the opportunities it generates (cited in Burns, 2005). He further points out seven sources of opportunity to search for creative innovation: the unexpected; the incongruity; the inadequacy in underlying processes; the changes in industry or market structure; the demographic changes; the changes in perception, mood and meaning; and the new knowledge (cited in Burns, 2005). Moreover, Drucker (1985) advocates a five-stage technique to systematic innovation: start with the analysis of opportunities, inside the firm and its industry and in the external environment; innovation is both conceptual and perceptual; to be effective, an innovation must be simple and has to be focused; to be effective, start small; aim at leadership and dominate the competition in the particular area of innovation as soon as possible (cited in Burns, 2005). Thus in order to encourage organizational creativity, the firms should according to Burns (2005) conduct a trusting management that does not over-control and has open internal and external channels of communication, provide people a certain degree of freedom so that they can create their own ways of doing things, give them some slacks in the resources they control, and encourage them to challenge the conventional or familiar ways of doing things.

It is obvious that many fast-growing young companies attribute much of their success to an entrepreneurial orientation (Dess & Lumpkin, 2005a) the dimensions of which can be cate-
gorized into five areas: autonomy; innovativeness; proactiveness; competitive aggressiveness; and risk-taking. More specifically, autonomy refers to independent action by employees who aim at bringing forth a business concept and carrying it through to completion. While innovativeness deals with activities aimed at developing new products, new services, and new processes, proactiveness relates to a forward-looking perspective of a market leader in order to seize opportunities of anticipated future demand. Dess and Lumpkin (2005a) further describe that competitive aggressiveness is an intense effort to outperform the rivals through a combative posture or an aggressive response whereas risk-taking refers to making decisions and taking action without certain knowledge of probable outcomes.

In addition, Dess and Lumpkin (2005b) point out that companies that exhibit a strong entrepreneurial orientation are likely to have an advantage when they undertake innovation via exploration and exploitation activity. According to March (1991), the concept of exploration and exploitation refers to the capability to effectively explore innovation options through activities for instance scanning, experimentation, R&D, and new product development as well as to successfully exploit new-found possibilities by efficiently deploying resources and organizing work activities (cited in Dess & Lumpkin, 2005b). It appears that the dimensions of innovativeness and autonomy are well suited to the exploration task whereas two other dimensions of risk-taking and competitive aggressiveness are well matched to the exploitation task (Dess & Lumpkin, 2005b). In addition, proactiveness involves in both exploration and exploitation tasks as it tends to contribute to a firm’s exploration efforts as well as to strengthen a firm’s ability to exploit innovation opportunity (Dess & Lumpkin, 2005b).

Consequently, an entrepreneurial organization has an organizational architecture that comprises entrepreneurial leaders, cultures, and structures. This architecture creates an entrepreneurial environment that facilitates entrepreneurship the key elements of which are creativity, invention and innovation, and opportunity recognition. More importantly, it is apparent that the success of many fast-growing young firms results primarily from their five dimensions of entrepreneurial orientation, all of which lead to the effective and efficient implementation of exploration and exploitation activities.

### 2.2.2 New economy firms

It is apparent that there are two important terms used to describe the emerging businesses in an information age: digital economy and new economy. According to Bhimani (2003), the term ‘digital economy’ refers to economy changes that entail computer-based information exchanges. Moore (2000) also identifies six characteristics of firms operating in the digital economy, which include operating at net speed, executing dynamic strategy, having a global reach, enabling e-initiatives, engaging in internal collaboration, and integrating with partners (cited in Gosselin, 2003).

On the other hand, the term ‘new economy’ is likely to share the ‘digital economy’ concept and sometimes includes other changes in the nature and functioning of the economy as well as related social structures and processes (Bhimani, 2003). Hartmann and Vaassen (2003) also emphasize the existence and importance of the ‘new economy’ as they point out that electronic activities or e-activities play an increasingly important role in the current business environment. Trade via World Wide Web or e-commerce is growing and e-entrepreneurship seems to outsmart its traditional counterpart.

According to Granlund and Taipaleenmaki (2005), new economy firms (NEFs) can be defined as “…fast growing or already fast-growing firms that operate in the information and communica-
tions technology business and biotech (life sciences) industry...” (p. 21). More importantly, NEFs focus on R&D and knowledge intensity, finance the operation through venture capital especially in the early stage of their life cycle, and run their businesses under turbulent, uncertain internal and external environment (Granlund & Taipaleenmaki, 2005). In addition, Lukka and Granlund (2003) suggest that NEFs include many types of firms, ranging from ‘dot-coms’, such as Amazon, eBay.com, and EQ online, to several other types of firms the work of which closely relates to the Internet, for instance, technology providers, www-site or-portal designers, content producers, and IT consultants.

Within this thesis, we therefore refers to new economy firms (NEFs) as, according to Granlund and Taipaleenmaki (2005), fast-growing firms operating in the information and communications technology business and biotech industry. These firms have four important characteristics which consist of R&D and knowledge intensity; high level of uncertainty, venture capital finance and fast growth.

2.2.3 Entrepreneurship in new economy firms

According to the above suggestions by many scholars, it can be argued that new economy firms are considered as one type of entrepreneurial organizations. These emerging businesses share the same characteristics of entrepreneurial firms in three important areas: knowledge and information focus; uncertain or changing environment; and flexible operation and structure. Indisputably, we are in the age of information technologies where the value of intellectual capital is likely to be higher than that of tangible assets. As a result, an entrepreneurial way of knowledge management seems to be important for the firm’s viability, growth, innovation and creativity. Moreover, this industry operates in a fast-paced, rapidly changing environment. This may result from the roll out of new digital-based technologies for instance broadband, cable, digital service line, as well as fast progression of personal computer, compression and storage equipments. In order to deal with rapidly changing business context and to achieve sustainable growth and development, the organizations therefore need to maintain a high level of flexibility. This can be accomplished by implementing organic structures the focus of which is to be flexible, decentralized, informal, and more horizontal than vertical, with a minimum of levels within the structures.

More importantly, innovation and creativity are the key elements of entrepreneurship in new economy firms. It is apparent that innovation through market development, innovation through product and process development, and related diversification are more suitable for NEFs. These strategies are not too much risky for firms aiming at both innovation and developing close customer relations. These two targets are qualities of entrepreneurial firms. In addition, mergers and acquisitions are also considered as the frequently-used strategy for growth due to the benefit of rapid growth achievement, the ability to enter to new product or market areas, and the accessibility of essential resources for instance R&D and customer bases. It is imperative to note that internal environment in NEFs is likely to foster creative innovation. As creativity is an essential force for entrepreneurship, NEFs are more likely to encourage open, informal communication and to give freedom to their people so that they are able to challenge the conventional ways of doing things and create their own ones as well as to embrace change and search for business opportunities. Moreover, the success of many fast-growing NEFs may result from their entrepreneurial orientation. This includes five dimensions consisting of autonomy, innovativeness, proactiveness, competitive aggressiveness, and risk-taking. While firms that have a high level of autonomy, innovativeness, and proactiveness are likely to success in exploring opportunities for entrepreneurial development, firms that possess a high level of risk-taking, competitive aggres-
siveness, and proactiveness tend to achieve the great benefit of exploiting innovation opportunities.

2.3 The characteristics of new economy firms and their implication for management accounting

In this section, we target at creating a deeper understanding of new economy firms as defined and described previously. Within this part we take our point of departure from new economy firms’ characteristics brought forward in part 2.2.2 that were high level of uncertainty, R&D and knowledge intensity, venture capital finance and fast growth. We then further discuss each characteristic in relation to management accounting.

2.3.1 High level of uncertainty

First of all, as we stated above, among specific characteristics of new economy firms is a turbulent and uncertain internal and external operating environment. Briefly it can be said that new economy firms face high level of uncertainty. In particular, uncertainty can come from internal working environment in new economy firms where entrepreneurial activities and projects are uncertain since there are no precedents or experience when dealing with new ideas and innovation (Lovstal, 2001). Ditillo (2004) also points out that work which tends to be oriented toward innovation and problem solving can cause uncertainty because it may require efforts on dimensions that are unanticipated and its criticalness often evolves dynamically. As a result, the outcome as well as the process of entrepreneurial activities are associated with uncertainty. In addition, uncertainty may result from the external environment which is characterized by turbulence and rapid change since new economy firms are operating in high-technology industry such as information and communication technology and biotech (Granlund & Taipaleenmaki, 2005). Accordingly, the high level of both internal and external uncertainty raises two questions regarding management accounting within new economy firms.

The first question is how new economy firms appropriately allocate their scarce resources among their entrepreneurial activities and projects. Resource allocation appears to be a challenging task for management accounting and control in entrepreneurial organizations. Since the outcomes of entrepreneurial activities and projects are uncertain, it is hard to know which one is the best to spend resources (Lovstal, 2001). In addition, there is likely a tension in making decisions on resource investment, especially between new products which are generated from entrepreneurial activities and old products that are core competences of companies. For example, Burns (2005) argues that entrepreneurial managers have to maintain a balanced portfolio of products. More specifically, they need to concern the balance of existing products and new ones which all require scarce resources. Consequently, this tension challenges resource allocation decisions in companies. Moreover, Burns (2005) points out that creative organizations require a degree of space or slack, which refers to the level of looseness in resource availability such as monetary budgets, physical space, and supervision of time, in order to allow experimentation. In other words, companies should offer a certain amount of slack so that their employees can have room and resource for innovation and creativity. Another aspect regarding resources is the fact that entrepreneurial companies which include new economy firms tend to consider opportunities before they think about resources needed. For instance Stevenson and Gumpert (1985) point out that the entrepreneurial point of view starts by asking “where is the opportunity” followed by “what resources do I need and how do I gain control over them” (cited in Kuratko &
This order implies that entrepreneurs should be allowed to follow opportunities without being constrained by limited resources. However, given that resources are scarce, there is also a desire to use resources effectively. As a result, this duality influences firms’ decisions in allocating resources as well.

The second question is how new economy firms can make forecasts about the results as well as make plans for the future when there is a high level of uncertainty. According to Granlund and Taipaleenmaki (2005), new economy firms operate in immature markets which are characterized by rapid change and turbulence. In addition, doing business in high-technologies requires NEFs to be able to react quickly and attentively to changing market conditions (Hartmann & Vaassen, 2003). These conditions in turn put exceptional demand on planning, forecasting and budgeting activities in NEFs.

2.3.2 R&D and knowledge intensity

Another typical characteristic of new economy firms is R&D and knowledge intensity. The need for innovation requires new economy firms to invest strongly in R&D activities which can produce new products and services for the companies. This requirement in turn influences management accounting in NEFs in the sense that these companies have to spend their resources on R&D and therefore may not have enough resources for management accounting (Granlund & Taipaleenmaki, 2005). Consequently, NEFs, especially those in the early stage, tend to keep their management accounting in a basic and simple manner (Granlund & Taipaleenmaki, 2005). This suggestion can raise a relevant question: what are the accounting tasks that NEFs are likely to implement within their simple management accounting practice? Furthermore, R&D activities are usually associated with the practice of learning by experimentation which is considered to be risky and uncertain (Lovstal, 2001; Burns, 2005). As a result, NEFs are likely to face the challenge of planning for uncertain results which we already discussed in part 2.3.1.

Moreover, Granlund and Taipaleenmaki (2005) categorize NEFs as knowledge intensive firms which according to Ditillo (2004) refer to the firms that provide intangible solutions to customer problems by using mainly the knowledge of their people. Accordingly, knowledge that is considered to be an intellectual capital (Roberts, 2003) is the core asset of NEFs. As a result, NEFs face difficulties in evaluating and measuring their intangible assets. Roberts (2003) points out that intangible assets tend to be under presented and limited captured because they come in bundles instead of discrete packages that can be accounted for and there is no common denominator or standard against which to compare them or to aggregate them by. Consequently, companies can not identify and manage uniqueness and the development of uniqueness by means of internally generated intangible assets (Roberts, 2003). Performance measurement literature calls for non-financial approaches such as Intellectual Capital (Mouritsen, 1998) and Balanced Scorecard (Kaplan & Norton, 2001) to achieve non-financial performance which concerns the value of intangible elements. However, those models are claimed to be complex and expensive (Mouritsen, 1998; Collier, 2006).

2.3.3 Venture capital finance

NEFs are also characterized by venture capital finance. According to Lukka and Granlund (2003), in the late 1990s boom period of new economy firms, venture capitalists typically invested in a relatively large portfolio of NEFs with the aim of seeking fast growth and the development of an image of successful companies in the market. As a result, venture capi-
tal becomes an institutional feature of new economy firms (Granlund & Taipaleenmaki, 2005). In fact, the attitudes and actions of venture capitalists are assumed to be an important influence on the practice of management accounting in NEFs.

Previous literature already acknowledged information asymmetry as a major issue between agents-businesses and principles-financiers consisting of venture capitalists, bankers, and investors (McMahon, 1999). Information asymmetry occurs when agents have information on the financial circumstances and prospects of the business that is not known to principals (McMahon, 1999). Consequently, principals tend to institute close monitoring activities by accessing reliable facts and figures which would allow them to judge the performance of agents and thus to detect whether agents are acting in a manner contrary to the principals’ interests (McMahon, 1999). However, the need for monitoring gives rise to agency costs (Davila & Foster, 2005). Accordingly, principles are likely to put demand on agents in order to reduce agency costs.

Davila and Foster (2005) argue that management accounting systems can help to reduce agency cost through effective monitoring. In entrepreneurial companies, where incentive mechanism relies heavily on stock ownership, management accounting information can potentially play a significant role in monitoring performance by shareholders. With a desire to reduce agency costs, venture capitalists therefore may require new economy firms to develop their management accounting package in order to access more accounting information. Accordingly, a relevant question is how NEFs can develop their management accounting package under the pressure of venture capitalists?

2.3.4 Fast growth

Granlund and Taipaleenmaki (2005) argue that the characteristic which distinguishes NEFs from other small and medium-size enterprises is especially fast growth. However, rapid growth actually turns out to be a challenge for companies. Nicholls-Nixon (2005) further points out that rapid growth produces dramatic changes in the scale and scope of a firm’s activities, which often makes high-growth ventures fall into troubles because they can not adapt to the pressure and demand of these changes. Potential problems which tend to be associated with rapid growth are an instant size which leads to disaffected employees and gaps in the skills and systems required to manage growth; a sense of infallibility which makes entrepreneurs be less willing to change their strategies and behaviors; an internal turmoil related to quickly integrating new people into the organization; and a need for extraordinary resources to meet the demands of rapid growth (Nicholls-Nixon, 2005). Those changes and problems put pressure on management in general and management accounting in particular. Among various managing approaches to cope with rapid growth is to develop new skills and capabilities by hiring new personnel or acquiring new resources such as new information systems aimed at improving organizational efficiency or effectiveness (Nicholls-Nixon, 2005). In terms of management accounting, this may imply that applying more formal and modern management accounting techniques can be a solution for managing rapid growth. In other worlds, it can be said that fast growth put pressure on NEFs to develop further their management accounting package. Here then again, one can raise a question that how NEFs are likely to develop their management accounting toolkits under the pressure from fast growth.
2.3.5 Summary

In the previous section, we have elaborated the characteristics of new economy firms from a management accounting perspective. Considering this discussion, it can be argued that the specific conditions of new economy firms have implications for management accounting in several aspects. These implication are summarized as follows:

<table>
<thead>
<tr>
<th>New economy firms' characteristics</th>
<th>Implications for</th>
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<tbody>
<tr>
<td>• High level of uncertainty</td>
<td>Resource allocation and resource planning.</td>
</tr>
<tr>
<td>• R&amp;D and knowledge intensity</td>
<td>Accounting tasks, long term performance measurement, resource allocation, planning for results.</td>
</tr>
<tr>
<td>• Venture capital finance</td>
<td>The need to develop management accounting package so as to meet the expectations regarding financial controls and the demand on information from the owners.</td>
</tr>
<tr>
<td>• Fast growth</td>
<td>The need for formal management accounting.</td>
</tr>
</tbody>
</table>

Table 1: NEFs' characteristics and their implications for management accounting

Staring with a high level of uncertainty, such characteristic seems to involve the challenge with respect to resource planning and resource allocation. In particular, new economy firms seem to face difficulties in choosing entrepreneurial activities and projects to invest in. Since the outcomes of those activities are uncertain, it is hard to know which one is the best to spend resource on. Moreover, the challenge also emerges when new economy firms operate in a changeable market. Following opportunities without knowing the future puts an exceptional demand on planning activities in NEFs.

R&D and knowledge intensity characteristic draws attention to management accounting issues in the extents of accounting tasks, long term performance measurement, resource allocation and planning. The requirement to invest strongly in R&D limits resource for management accounting. As a consequence, NEFs tend to maintain “light” or simple management accounting package. A relevant question then is what type of accounting tasks NEFs tend to perform within their simple management accounting. In addition, R&D activities are likely associated with the practice of learning by experimentation, which is considered to be risky and uncertain. In that sense, again planning for uncertain results appears to be challengeable for management accounting in NEFs. As knowledge intensive firms, NEFs have the major resource embodied in the knowledge of their people, which are intangible and difficult to evaluate and measure. Consequently, problems appear to be associated with performance measurement activities as well.

Finally, under the pressures from venture capitalists and fast growth, NEFs may need to develop further their management accounting package. A relevant question can be raised then how NEFs tend to develop their management accounting under such pressures.

From management accounting perspective, resource allocation and planning can be linked with budgeting activity. Moreover, the issues of performance measurement are associated
with the use of key performance indicators and measurement methods. Regarding accounting tasks, it is necessary to explore suitable accounting tasks and techniques that should be performed under the specific conditions of new economy firms. Finally, the question of the need to develop management accounting package requires to understand more specifically in which way new economy firms tend to develop their management accounting package under the pressure from venture capitalists and fast growth. These four issues will be discussed further in the following section.

2.4 A collected framework of management accounting within new economy firms

In this part, we will summarize the previous researches and empirical studies to find the answers for four issues that we already discussed in part 2.3. These answers will act as a backbone for our collected framework of management accounting within new economy firms. This framework will be compared with the practice of management accounting in Litium afterwards.

2.4.1 The development of management accounting in NEFs

As we mentioned earlier, venture capitalists and fast growth may put pressure on new economy firms to develop their management accounting package. In the following section, we will discuss further how management accounting are likely to be developed in NEFs. It is also important to keep in mind that the way each new economy firm uses to improve management accounting package depends upon its own specific circumstances. However, we will summarize relevant studies in order to achieve a broad and common view.

We will start with the study by Davila and Foster (2005) which focuses on the development of management accounting package in the sense that early stage firms start to adopt management accounting systems (MAS). According to the authors, MAS are defined as “formal, information-based routines and procedures managers use to maintain or later patterns in organizational activities” (Simons, 1995; cited in Davila & Foster, 2005, p. 1040). The result of this study shows that operating budgets are the first MAS adopted by start-up firms followed by cash budgets, variance analysis, operating expense approval policies, capital expenditure approval policies, product profitability, customer profitability and customer acquisition costs. The influence of venture capitalists on management accounting is also associated with the faster adoption of operating budgets.

Regarding the adoption of MAS as well, Granlund and Taipaleenmaki (2005) studied further the role of management accounting systems in eight NEFs and found that budgeting is the accounting system that is first used, while advanced accounting systems are presented only in firms with strong beliefs about their future success. Cost accounting, customer profitability, long-term financial planning and capital budgeting have little, if any presence. Concerning the influence of venture capitalists, the study shows that venture capitalists require certain sophistication of control systems in NEFs. For instance, while previously venture capitalists were interested in the financial reports, currently they are also interested in reporting systems and processes from which the presumably reliable and timely reports are made. More specifically, these investors require NEFs to have at least basic controls such as budgeting, measurement of key figures, and follow-up systems (Granlund & Taipaleenmaki, 2005).
Moores and Yuen (2001) also conducted an empirical study in relation to the development of MAS from a different perspective which concerns the increased formality of MAS—the greater use of computers, technical staff, and financial modeling. In this study, growth turns out to dominate other stages in creating needs for more formal management accounting system design. This is explained by the fact that as firms enter growth stages the level of administrative tasks far exceeded the capacity of firms’ existing management accounting systems. The authors further point out that firms tend to formalize their MAS by changing from manual to computerized systems and to increase professionalism in management by using both internal staff experts and external consultants.

Lukka and Granlund (2003) suggest another idea about the development of management accounting systems in NEFs which are under pressure of fast growth. These authors argue that with growth and geographical spread, NEFs tend to need more information. As a result, “lighter” versions of formal and modern management accounting techniques such as activity-based costing, cost targeting, balanced scorecard and other non-financial measures can be useful in the context of growing. However, the authors emphasize adding the complexity to their management control systems may not be desired, even when NEFs grow.

Moreover, it may be argued that the development of management accounting in NEFs can be seen through the change in the aspects of accounting departments’ work, developed from book-keeping and administrating toward consulting task. According to Mouritsen (1996), book-keeping and administrating refer to the activities associated with maintaining financial transactions and database and handling debtors, creditors, and simple cash management. On the other hand, consulting emphasizes the mediation between external and internal parties and the creation of specialized ad hoc analysis for decision making (Mouritsen, 1996). Although controlling activity, the focus of which is objectives, resources, and compliance with budgets (Mouritsen, 1996), is still an important management accounting tool for NEFs, the firms tend to keep the budgets more flexible so as to maintain innovativeness and creativity as well as to be adaptive to changes and uncertain events.

In summary, there are three main ideas regarding the development of management accounting in NEFs. The first concerns the adoption of MAS where budgeting is likely the earliest system adopted. The second considers the improvement of management accounting to more formal and modern but “lighter” MAS. The lighter version of MAS may imply that NEFs should apply the idea of modern MAS rather than invest in the complicated systems. Finally, the development of management accounting can be expressed by the movement from book-keeping and administrating toward consulting work.

### 2.4.2 Accounting tasks performed in NEFs

Lukka and Granlund (2003) recommend a simple and solid management control system for NEFs. By this type of control system, the authors imply that “there is no need to invent new tools for management control in NEFs. However, business and strategic specifics could be incorporated in the design of management control systems” (p. 251). Within the simple and solid management control system, the authors further suggest accounting tasks which can make sense for NEFs. First of all, budgeting may form the backbone of management control in NEFs. Particularly, rolling forecasting/budgeting can help NEFs to deal with uncertainty from turbulent environment and therefore is a useful tool for NEFs. In addition, various calculations regarding the costs and benefits of network relations is a demanding task. Finally, target costing, capital investment calculation, open books accounting, etc. are all techniques that may also be taken advantage of.
The empirical study by Granlund and Taipaleenmaki (2005) on NEFs provides a clearer picture regarding accounting tasks that are preferred in NEFs. The authors categorize tasks into three groups: highly preferred (vital) tasks; MAC-tasks (Mergers, Acquisitions, and Competitors analysis); and least preferred tasks. In particular, highly preferred (vital) tasks include routine operation that forms the basis of management control in NEFs and should be performed as a minimum if the time resources are limited. The most popular tasks in this group are budgeting, under the form of a traditional budget or a rolling forecast, and reporting, followed by continuous R&D project control and tasks related to private placement funding or initial public offerings. Internal financial analysis – a task that is ranked highly in many other surveys – however turn out to be little used in NEFs. Regarding MAC-tasks, the study shows that they are occasionally used and tend to occur in NEFs that have already been in more than the very first steps of their life cycle. Finally, least preferred tasks, relating to the tasks that receive only minor attention, are cost accounting, performance measurement, long-term financial planning and capital budgeting. As a result, in contrast with a wide range of management accounting techniques suggested by Lukka and Grandlund (2003), practical evidences from Granlund and Taipaleenmaki (2005) expressed that tasks which are likely to be performed in NEFs are only budgeting, reporting, R&D project control and tasks related to private placement funding or IPO.

In summary, there are two answers for the task question. The first one which is based on the idea of Lukka and Grandlund (2003) suggests a wide range of management accounting activities such as budgeting, cost calculations, capital investment calculation, etc. Meanwhile, the second one takes the point of Granlund and Taipaleenmaki (2005) who suggest only four types of tasks including budgeting, reporting, R&D project control and tasks related to private placement funding or IPO.

2.4.3 Budgeting

As stated above, within a management accounting perspective, planning and allocating resources is related to the question of how the budget is used. According to Collier (2006), a budget is “a plan expressed in monetary terms covering a future time period. Budgets are based on a defined level of activity; either expected sales revenue or capacity” (p. 243). Therefore, one important function of budgeting is to allocate resources in accordance with strategic goals (Collier, 2006). More specifically, during budgeting process, resources are planned and allocated for the future often for a period of one year (Lovstal, 2001). For new economy firms operating in an uncertain and turbulent environment, it may be relevant to assume that NEFs find the budget is difficult and may be even useless to prepare.

From this point of view, Hansen, Otley and Van der Stede (2003) point out one main concern regarding budgets in practice is the criticism that by the time budgets are used, their assumptions are typically outdated, reducing the value of the budgeting process. As a result, budgets can never be valid because they cannot capture the uncertainty involved in rapid change. Accordingly, there is an idea calling for abandoning budgets (Hansen et al., 2003). Similarly, Wallander (1999) looked upon budgeting as an “unnecessary evil” and an outmoded way of controlling and steering a company. The author argued that if people believe in the budget they set it might hinder them from adapting to new situations. On the other hand, if they do not believe in it, there is no point in making a budget. As a result, Wallander (1999) came to the decision of abandoning budgeting in Handelsbanken, the largest commercial bank in Sweden where he was appointed to be the executive director in 1970. In addition, the empirical study by Hussain, Gunasekaran and Laitinen (1998) on management accounting systems in Finnish service firms reveals that plans are not suc-
cessful and planning processes are also laborious in a large number of firms researched. The result of this study shows that up to 13% of respondents admitted they had no plan regarding capital budgeting at all (Hussain et al., 1998).

Considering the introduction chapter where we discussed the argument related to a management accounting tool as an obstacle for entrepreneurship as well as the above evidences from previous literature, we can therefore assume that budgets are not prepared in new economy firms. In this sense we refer to “coping strategy” discussed previously which implies that companies try to avoid activities related to management accounting.

In contrast, Anthony and Govindarajan (2000; cited in Collier, 2006) bring a different view about budgets. They argue that budgets are an important tool for effective short term planning and control (cited in Collier, 2006). Accordingly, companies should consider using budgets. Sandino (2005) classifies budgeting among “basic” management control systems which are likely to be introduced by most firms first (cited in Davila & Foster, 2005). Empirical study on 78 early start-up companies by Davila and Foster (2005) also supports this point of view by showing that operating budget and cash budget are typically the first management accounting systems adopted. Similarly, Granlund and Taipaleenmaki (2005) point out in their empirical study on NEFs that budgeting is the accounting system which is first used while advance accounting systems are presented only in firms with strong beliefs about their future. Lukka and Granlund (2003) also share the same view by recommending budgeting, particularly rolling budgets, as a useful tool in the turbulent environment surrounding NEFs.

Considering budgeting as a useful tool for NEFs, it is also relevant to assume that budgeting, specifically rolling forecasting/budgeting, is applied to support for decision-making process in new economy firms.

2.4.4 Performance measurement

According to Collier (2006), control is one important function of management accounting in the sense that management accounting provides information to maintain performance as close as possible to the plan, or uses information to modify the plan itself. The idea is further that performance should be measured against some clearly defined targets or standards. According to Merchant (1998), tasks relating to performance measurement include defining the dimensions on which the results are desired (or not desired), measuring performance on these dimensions, setting performance targets for employees to strive for, and providing rewards or punishments to encourage the behaviors that will lead to the desired results. In addition, performance can be measured by both financial measures such as net income, earnings per share and return on assets and non-financial measures such as market share, growth (in unit) and the timely accomplishment of certain tasks (Merchant, 1998).

As we already mentioned above, one typical characteristic of new economy firms is knowledge intensity. Consequently, intangible assets are dominant in new economy firms. Since accounting is developed for and focuses on tangible operations, intangible issues such as the value of knowledge potential linked to the firm’s personnel tend to create the problems for accounting measurements (Lukka & Granlund, 2003). Merchant (1998) also points out that profit calculations which are a part of accounting performance measurement ignore some economic values and value changes. In this respect, he refers to investments in intangible assets such as human resources, information systems and customers goodwill that are omitted in the balance sheet. Given that intangible assets formulate the core of NEFs,
it can be argued that depending merely upon financial measures is not an effective way to measure performance in knowledge insensitive firms such as new economy firms.

Concerning the weakness of accounting-based performance measurement, many authors have been striving to introduce modern performance measurement frameworks that combine both financial and non-financial measures in order to measure intangible values. Examples of modern performance measurement models are the Balanced Scorecard (Kaplan and Norton, 2001); Intellectual Capital (Mouritsen, 1998); and Results and Determinants Framework (Fitzgerald, et al., 1991; cited in Collier, 2006). With efforts to measure intangible values, it is relevant to assume that those models make sense for new economy firms. Okkonen (2004) studying performance measurement in knowledge work context concludes that the Balanced Scorecard is a good model for performance measurement in knowledge work. The author further argues that since knowledge worker equals the competencies, knowledge and skills measures should be designed to control the accumulation of knowledge and skills, and to drive competency development.

To conclude, based on suggestions from previous literature, we assume that performance measurement in NEFs include both financial and non-financial indicators. Modern performance measurement models are suitable for new economy firms.

2.4.5 A collected framework of management accounting within new economy firms

In this section, we will construct a collected framework of management accounting within new economy firms, which is based on the discussion in previous parts. All these ideas and suggestions regarding management accounting in NEFs are brought up together in Table 2.

<table>
<thead>
<tr>
<th>The development of management accounting</th>
<th>Accounting tasks</th>
<th>Budgeting</th>
<th>Performance measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The adoption of MAS</td>
<td>Using a wide range of tasks suggested by Lukka and Grandlund (2003)</td>
<td>No budgets</td>
<td>Use formal performance measurement frameworks</td>
</tr>
<tr>
<td>Move toward more formal and modern MAS</td>
<td>Four major tasks: budgeting; reporting; Continuous R&amp;D project control; tasks related to private placement funding or IPO suggested by Granlund and Taipaleenmaki (2005).</td>
<td>Use budgets, particularly rolling and forecasting/ budgeting</td>
<td>Consider both financial and non-financial indicators</td>
</tr>
<tr>
<td>Maintain lighter versions of modern MAS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop from book-keeping and administrating toward consulting work.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: A collected framework of management accounting within NEFs

Regarding the development of management accounting under the pressure from fast growth and venture capitalists, NEFs can improve their management accounting package through two possibilities. First of all, for those who are in the early stage of their life cycle, adopting MAS such as budgeting can be considered as a big step in developing management accounting package. Moreover, in this early stage, the aspects of accounting departments’ work are likely concerned with book-keeping and administrating. Secondly, for those who are under fast growth and already have basic MAS, the development can be made by moving toward more formal and modern MAS such as light versions of activity-
based costing, cost targeting, balanced scorecard and other non-financial measures. The aspects of accounting departments’ work during the growth stage also emphasize the role of consulting through ad hoc analysis and due diligent tasks.

With respect to accounting tasks in NEFs, on the one hand, there is an evidence that NEFs tend to perform only basic management accounting tasks such as budgeting, reporting, continuous R&D project control and tasks related to private placement funding or IPO. On the other hand, there is an idea that various type accounting techniques can make sense in the condition of NEFs.

In the extent of budgeting, on the one side, some authors claim that budgeting fails in dealing with uncertainty under the context of turbulent environment, therefore budgeting should be abandoned in NEFs. On the other side, there is an argument that budgeting, particularly rolling forecasting/budgeting, is an useful tool for the management to deal with a changing environment surrounding NEFs because it can be more flexible to set and monitor loose financial targets than the traditional annual budget. Moreover, it appears that the owners demand management to prepare the budgets regularly as well. Therefore budgeting should be applied as a basic tool in new economy firms.

In relation to performance measurement, it may be argued that under the condition of intangible assets forming the core operations, NEFs should consider both financial and non-financial measures and focus more on competences such as knowledge and skills. Modern performance measurement frameworks such as the Balanced Scorecard and Intellectual Capital can make sense in the context of knowledge intensive firms like NEFs.

The above suggestions from previous literature trigger four relevant questions that we will put forward for the empirical study part. First, we will focus on the development of management accounting in Litium under the pressure from venture capitalists and fast growth. Second we will investigate the accounting tasks that are conducted in Litium. Third, we will analyze the practice of budgeting task in Litium. In particular, we will investigate whether budgeting is applied in Litium or not and if budgeting is actually implemented in Litium, we will further study how it is used and how it influences entrepreneurship in the company. Finally, we will aim at performance measurement in Litium; for example, what key performance indicators used by the company?, are they good enough?, to which extent are they in line with the suggestions in the literature and in which sense do they effect entrepreneurship in the company?. All empirical findings will then be compared with the collected framework that we built earlier.

3 Method

The aim of this chapter is to provide an explanation why the qualitative method was chosen for our study. We will then present the detailed information regarding how the data for the study were collected and how they were analyzed.

3.1 The choice of research method

In accordance with the topic and the purpose of our study, we acknowledge that the qualitative research method is more suitable for our single case study than the quantitative approach. According to Denzin and Lincoln (2000), qualitative research can be defined as “a situated activity that locates the observer in the world. It consists of a set of interpretive, material practices that makes the world visible. These practices...turn the world into a series of representations including field
notes, interviews, conversations, photographs, recordings and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them” (cited in Snape & Spencer, 2003, p. 3).

The key elements leading to the distinctive characteristic of qualitative research method can be categorized into six aspects, which according to Snape and Spencer (2003) include: the aims which are directed at providing an in-depth and interpreted understanding of the social world of research participants by learning about their social and material circumstances, their experiences, perspectives and histories; the samples that are small in scale and purposively selected on the basis of salient criteria; the data collection methods which usually involve close contact between the researcher and research participants, which are interactive and developmental and allow for emergent issues to be explored; the data which are very detailed, information rich and extensive; the analysis which is open to emergent concepts and ideas and which may produce detailed description and classification, identify patterns of association or develop typologies and explanations; and the outputs which tend to focus on the interpretation of social meaning through mapping and re-presenting the social world of research participants.

On the other hand, it may be argued that quantitative research method, which according to Davidsson (1997) refers to “the use of formal measurement, and the use of many observations (firms, individuals), the use of statistical analysis techniques.” (p. 2), provides three important strengths associated with formal measurement and statistical analysis techniques. The advantages include that the researchers impose on themselves a certain self-control and objectivity, that formal measurement and well-defined analysis techniques make the research easier to communicate, and that expressing the data as numbers gives access to powerful statistical estimation techniques available on computer software (Davidsson, 1997). Although the key benefit of quantitative method in term of objectivity is superior to qualitative approach (Davidsson, 1997), we found that quantitative approach does not fit with our single case study the aim of which is to describe, analyze, and provide recommendation in the extent of management accounting and entrepreneurship in a new economy firm. It seems that formal measurement may not meaningfully translate the knowable properties of reality into numbers and that quantitative approach may not permit the researchers to deal with the complexity and cannot help in gaining deep understanding of a phenomenon (Davidsson, 1997).

In addition, we found that interviews, one type of qualitative research methods, provide important insights into a situation and useful shortcuts to the prior history of the situation (Yin, 1989). As an essential source of case study evidence, interviews appear to yield the highest benefit when we conduct them in both open-ended and structured manner. Therefore, interviewing is used as a main tool for collecting data in our research.

### 3.2 Data collection

#### 3.2.1 Source of evidence

We strengthened our case study by using multiple sources of evidence (Yin, 1989). This can be achieved by triangulating interview data with data collected from documentation and archival records, for instance, internal company documents, research articles, and the reports from external business database. We examined the overlap and difference in both theories and data collected as well as investigated the paradoxes and emerging perspectives. We also
used Internet as a source of information, for instance, Amadeus database through university library’s website (https://amadeus-bvdep-com.bibit.procz.bj.se/version-2007522/cgi/template.dll) when searching for general information about Litium, the company in our case study.

3.2.2 Choosing the interviewees

Within this study, we take a leadership perspective, which means that we are primarily concerned leaders’ opinions about management accounting and entrepreneurship. According to Lovstal (2001), powerful individuals such as founders and other leaders have a strong influence on the organization’s culture and on how the business is organized and managed. Considering our concern as well as the suggestion from previous study, we selected the interviewees who are leaders and participate in management accounting activities in Litium.

Our first interview was conducted with Kristina Laurelii, who is the Chief Financial Officer (CFO) in Litium and also our contact person. During this interview, we realized that, except from Kristina herself, we needed to interview other key persons who also involved in management accounting activities, especially budgeting and performance measurement – the main focus of this study. According to Kristina, business unit managers also took part in budgeting process. We therefore selected them as our interviewees. They are Morgan Jacobsson, Hans Börjesson, and Daniel Ahlqvist. The table below provides general information about our interviewees.

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Department/ Business Unit</th>
<th>Years working with Litium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kristina Laurelii</td>
<td>Chief Financial Officer</td>
<td>Accounting and Finance</td>
<td>2 years</td>
</tr>
<tr>
<td>Morgan Jacobsson</td>
<td>Business Unit Manager</td>
<td>Project Management</td>
<td>1 year</td>
</tr>
<tr>
<td>Hans Börjesson</td>
<td>Business Unit Manager</td>
<td>Mobile Applications</td>
<td>Since 1998</td>
</tr>
<tr>
<td>Daniel Ahlqvist</td>
<td>Business Unit Manager</td>
<td>Web Solutions</td>
<td>3 years</td>
</tr>
</tbody>
</table>

Table 3: General information about interviewees

3.2.3 Designing the interview guides

During each interview, we used an interview guide. In general, the guide was divided into three parts including opening questions, in dept questions and questions looking to the future. According to Legard, Keegan and Ward (2003), opening questions are an opportunity to collect important contextual information. Therefore, in this part we designed questions asking about the background of interviewees such as their position, working experience, their view on the current situation of the company. In this part, we also included questions on general information about the company such as the business concept, the structure, ownership, and market. After finishing the opening section, we moved forward to our main topics on management accounting and entrepreneurship. At this stage we guided interviewees to follow-up in dept questions asking in detail issues related to our main topics. We also followed chronological order by moving from general, circumstantial questions to spe-
specific, attitudinal, evaluative and explanatory questions according to the suggestion of Arthur and Nazroo (2003). We ended our interviews with questions looking to the future and suggestions about the main issues in our topic. Besides our own questions, we used sample questions from two relevant studies which included Lovstal (2001), and Granlund and Tai-paleenmaki (2005). Our interview questions are presented in Table 12: Interview Guide 1 and Table 13: Interview Guide 2 in Appendix.

3.2.4 Conducting the interviews

The initial discussion about this thesis started at the beginning of April 2007 when Lan and Kristina’s family had a dinner together. During this conversion, Lan asked Kristina about the current situation of management accounting in Litium and the probable problem that could be a topic for her thesis. After discussing with Kristina, Lan was very impressed by the high level of entrepreneurship in Litium and she was very interested in studying how Litium – an entrepreneurial company – can be controlled with the help from management accounting and how management accounting techniques can be used to without conflicting with entrepreneurial value and spirit in this company. Kristina was also interested in this topic and agreed to help Lan with information from Litium.

After this informal talk, we sent the preliminary questions to Kristina through email on April 30th, 2007 in order to know an overview of management accounting practices in Litium as well as to align the frame of reference part with empirical findings.

As soon as after finishing the frame of reference chapter, we started to conduct formal interviews from 7th to 16th, May, 2007. In particular, we conducted three face-to-face interviews with Kristina and Morgan. Each direct interview lasted about one and a half hours and all of them were tape-recorded.

Our first formal interview was conducted with Kristina on May 7th, 2007. Before the interview we sent Kristina the questions that we intended to ask so that she could have times to prepare herself. During this interview, Kristina provided us a general information about Litium such as products, structure, customers, markets, number of employees. After that, according to our requirement, she focused on budgeting process, performance measurement, accounting tasks and entrepreneurship. During this time, we also expressed our wish to make interviews with business unit managers as well as appointed the second interview with Kristina on May 14th, 2007. The first interview was then transcribed and used to write a summary. This summary has three purposes. First of all, writing down information helps us to be able to revise and enter deeper into the answers. Second, the summary was then checked with Kristina in the next interview in order to make sure we interpreted correctly the information she provided. Third, the summary was used as a point of departure for the second one.

The second interview with Kristina took place on May 14th, 2007. During this interview, we aimed at understanding deeply the practice of management accounting in Litium. We further investigated the connection between management accounting tools and entrepreneurship. We ended the interview with discussions related to the main issues in management accounting and Kristina’s opinions about the future.

The third interview was conducted with the business unit manager of project management, Morgan Jacobsson, on May 16th, 2007. The main of this interview was to discuss further the issues related from middle managers’ point of view and ensure that we understood correctly the answers in Swedish that he sent us through email previously.
Besides direct interviews, we also sent interview questions through email to four business unit managers because most of them were in Stockholm. We sent them an email on May, 10th, 2007 and waited for their feedback within one week. In the documents sent to business unit managers, we focused on investigating budgeting, performance measurement, and the need to develop management accounting and entrepreneurship. We also included the questions about the influence of budgeting and performance measures on entrepreneurship in Litium. We then received the answers from Morgan Jacobsson, Hans Börjesson, and Daniel Ahlqvist on 11th, 20th, and 21st of May 2007; respectively.

3.3 Method of analysis

Data analysis refers to “…examining, categorizing, tabulating, or otherwise recombining the evidence, to address the initial propositions of a study.” (Yin, 1989, p. 105). According to Yin (1989), data analysis consists of two general analytic strategies: relying on theoretical propositions and developing a case description. The latter refers to the development of a descriptive framework for organizing the case study, whereas the former deals with the follow of the theoretical propositions that led to the case study (Yin, 1989). In the extent of analytical strategy, we found that the relying on theoretical propositions is suitable for our case study. As we mentioned at the beginning of the frame of reference, we conduct our case study by following the theory of management control practices in new economy firms described by many previous relevant studies such as Lovstal (2001), Granlund and Taipaleenmaki (2005) and Lukka and Grandlund (2003) and the like. Thus the objective and design of this case study are based on such propositions, which then shape the data collection plan and the relevant analytic strategies. The proposition also helps to focus attention on certain data, to ignore other data, to organize the entire case study, and to define alternative explanations to be examined (Yin, 1989). Moreover, we applied pattern-matching as a mode of analysis. A pattern-matching logic compares an empirically based pattern with a predicted one. If the patterns coincide, the results can then strengthen the internal validity of the case study (Yin, 1989).

However, we argue that other two modes of analysis proposed by Yin (1989), Explanation-Building and Time-Series Analysis, do not fit for our thesis. While the former is used “…to analyze the case study data by building an explanation about the case.” (Yin, 1998, p. 113), the latter helps “…to examine some relevant ‘how’ and ‘why’ questions about the relationship of events over time, not merely to observe the time trends alone.” (p. 120). As our main purpose is to describe, analyze, and provide recommendations in the topic of management accounting and entrepreneurship in a new economy firm, our study does not fit with Explanatory-Building the procedure of which is relevant to explanatory and exploratory case studies and the goal of which is to develop ideas for further study (Yin, 1998). Similarly, we also focus our study on the current management accounting practices in a new economy firm so our study does not fit with Time-Series Analysis an essential feature of which is to identify the specific indicators to be traced over time and the specific time intervals to be covered (Yin, 1998). In addition, we also considered a model of corporate evolution phases suggested by Victor and Boynton (1998; cited in Granlund & Taipaleenmaki, 2005) as we agree with Granlund and Taipaleenmaki (2005) that it is important to pay attention to the requirements of management control accompanying a certain phase of evolution that NEFs are going through. Moreover, we also recognize that according to Granlund and Taipaleenmaki (2005) the life cycle perspective is important for the study of NEFs as the firms operate in constant, rapid developments of both internal and external business environment. This characteristic of NEFs emphasizes the need for change of management accounting and control over time.
3.4 Limitations of the research method

According to Lewis and Ritchie (2003), reliability and validity, which mean ‘sustainable’ and ‘well grounded’, have relevance for qualitative research because they help to define the strength of the data or the soundness of the evidence. Within this thesis, we strengthened the validity by constructing an interview guide and triangulating the sources of evidence and the theoretical perspectives. We also enhanced the reliability by using a tape-recorder while conducting interviews so as to be able to review the interview information several times and to analyze them thoroughly. Moreover, we were aware of language barrier and our different background as well as more valuable information that might have been obtained if we had been able to make interviews with other important persons relating to management accounting and entrepreneurial activities in Litium.

3.4.1 Validity

Lewis and Ritchie (2003) suggest that “The validity of findings or data is traditionally understood to refer to the ‘correctness’ or ‘precision’ of a research reading.” (p. 273). The validity can be explained into two dimensions: internal validity and external validity. The former is concerned with whether the researchers are investigating what they claim to be investigating (Arksey & Knight, 1999; cited in Lewis & Ritchie, 2003); the latter is associated with the extent to which the abstract postulates generated are applicable to other groups within the population (LeCompte & Goetz, 1982; cited in Lewis & Ritchie, 2003). There are many terms used to describe the concept of validity for instance the ‘correctness’ of qualitative evidence, the ‘credibility’ and ‘transferability’ (Lincoln & Guba, 1985; cited in Lewis & Ritchie, 2003), the ‘credibility’ and ‘plausibility’ of research claims (Glaser & Strauss, 1967; cited in Lewis & Ritchie, 2003).

In order to strengthen the validity of our thesis, we researched and constructed the interview guides before conducting face-to-face interviews with the respondents. The interview guides enabled us to conduct the interviews so as to achieve the answers for our research questions as well as to ensure that all respondents, particularly business unit managers, were asked the same questions so that the results can be reproduced. We also applied the concept of ‘triangulation’ which according to Lewis and Ritchie (2003) refers to the use of different sources of information to confirm and to improve the clarity or the precision of a research finding. More particularly, we achieved the triangulation of evidence sources by comparing interviews data with internal documents and information from external database. We also applied ‘theory triangulation’ by looking at data from different theoretical perspectives. This could be achieved through the research of many literatures and previous studies relating to our subjects for instance the studies of Granlund and Taipaleenmaki (2005); Lukka and Granlund (2003); and Lovstal (2001).

3.4.2 Reliability

Reliability is concerned with “...the replicability of research findings and whether or not they would be repeated if another study, using the same or similar methods, was undertaken.” (Lewis & Ritchie, 2003, p. 270). In particular, reliability can be categorized into two parts: external and internal reliability. The former refers to the level of replication that can be expected if similar studies are undertaken whereas the latter relates to the extent to which assessment, judgment, and ratings are agreed or replicated between researchers (Lewis & Ritchie, 2003). Moreover, there are many terms used to discuss about the reliability, the validity, and the soundness of a study for instance the ‘confirmability’ of findings, the ‘trustworthiness’ (Glaser & Strauss,
1967), the ‘consistency’ (Hammersley, 1992; Robson, 2002), and the ‘dependability’ (Lincoln & Guba, 1985) of the evidence (cited in Lewis & Ritchie, 2003). In order to ensure that these qualities exist and can be measured and demonstrated, researchers are required to have a clear understanding of what kinds of qualitative data might be expected to be consistent, dependable or replicable as well as to consider whether the constructions placed on the data by them have been consistently and rigorously derived (Lewis & Ritchie, 2003). Lewis and Ritchie (2003) further suggest that the reliability of the findings depend upon the likely recurrence of the original data and the way they are interpreted.

In order to ensure that our qualitative research is reliable, we used a tape recorder when conducting interviews with CFO and a business unit manager. This led us to carry out internal checks on the quality of the data and the interpretation. It was also possible for us to review the interviews several times so that we could deeply analyze the interviews and did not miss any valuable information. We also translated the interviews, specifically the budgeting process, into text and sent to CFO so that she could check for mistakes and if any additional information should be added. We also translated the answers of a business unit manager from Swedish to English and asked him to explain more in detail so that we could understand his answers clearly and correctly.

3.4.3 Other limitations

As we were two foreign students, we were aware of language barrier while doing our thesis. We confronted the difficulty to acquire more information about the company, its products and markets through the company’s website as the on-line information (http://www.litium.se/Templates/Article11.aspx?PageID=d2039a53-a301-48f7-b40-9a942ab91eb1) was presented in Swedish. Similarly, the website of the company’s venture capitalist, FastPartner AB, was displayed in Swedish as well (http://www.fastpartner.se/). In order to cope with this challenge, we reviewed two previous studies of Litium by JIBS students (Brandt, Geldard, Wilcox, & Vilsson, 2007; Glassoteket Consulting, 2007), asked the respondents to provide information in English, and used two on-line translation websites (http://www.translation-guide.com/free_online_translators.php and http://lexin2.nada.kth.se/swe-eng.html) to translate some internal documents during the research process. In addition, we were aware that our background, which is relatively different in terms of culture, business and accounting knowledge since we come from Asian countries, may influence our understanding and analyzing the practice of management accounting and entrepreneurship in Litium. In order to be objective, we therefore relied on various literature of new economy firms, entrepreneurial organizations, and management accounting to strengthen our points of view and analysis. Finally, we also acknowledged that our interviews were participated by few respondents, specifically four people working with Litium: CFO and three business unit managers. We would have gained a deeper knowledge and acquired more important evidences regarding management accounting and entrepreneurship in Litium if we had been able to make interviews with CEO, content management’s business unit manager, consultants, members of development team, the company’s venture capitalist and other owners.
4 Empirical Findings and Analysis

4.1 Litium’s background

4.1.1 Introduction

Established in December 1998, Litium Affä rskommunikation AB (Litium) is a software development company founded by five entrepreneurs who recognized business opportunities to serve customers with software innovation (Brandt, Geldard, Wilcox, & Vilsson, 2007; Glassoteket Consulting, 2007). The five entrepreneurs had work experience with information technology consulting and a developed network of customers. Litium therefore started to serve these existing customers by utilizing the combination of resources and experiences of five co-founders. Two years after the launch of Litium, FasPartner AB became an important venture capitalist of the company. This additional investment was used to develop and redesign the company’s product portfolio so as to expand the business to other niche markets. In addition to opening a sales and marketing office in Stockholm, Litium also relocated to ‘Science Park’, a new business incubator in association with Jönköping University. This strategic move enabled the company to access facilities supported for start-up companies at low cost and to be in close connection with other new developing firms and the university.

Litium offers software solutions particularly in four business areas: content management; web solutions; mobile applications; and project management. Content Management is the most established business unit providing software tools that can help customers to design their homepages by their own as well as offering consulting service for customers relating to these tools. Web Solutions is the second largest business unit that provides customers web solutions for instance integrating customers’ systems with their web pages. Mobile Applications is a quite new business unit providing technologies that can read on-line information to keep track of moving things. The customers for this business are for example the cleaning service providers who offer the service to public transportation such as trains. The cleaning firms can keep track of their staff when they finish their working on the train. Project Management is the youngest business unit which was established last year. This business unit provides project management software that help customers to keep track and manage their projects.

It may be argued that Litium operates in a changing environment, where an innovative, flexible, decentralized structure is needed (Burns, 2005). The company has business unit managers, consultant managers, consultants and R&D members who work for four business units (see Figure 4: Litium’s organizational chart in Appendix). Content management and web solutions are owned 100% by Litium whereas mobile applications and project management are owned by the company 64% and 81%; respectively. Considered as the core competence of Litium, content management has its own development team and comprises totally 18 members. Web solutions also has 18 members whereas mobile application and project management has 4 and 2 members; respectively. These four business units are managed by CEO who then works closely with CFO and marketing manager. The company also has an accountant and a support staff to help support accounting and administrative works. Thus it appears that Litium has a highly flexible structure where groups of people are responsible to the areas of their expertise. The structure is also decentralized and horizontal as well as facilitates open communication between each business unit. This can
be seen through the flat structure between CEO and business unit managers (Figure 4 in Appendix), which then promotes free flows of communication within the organization.

In terms of ownership, the significant shareholders of Litium are three co-founders: Mattias Stark; Mathias Bransmo; and Emil Danielsson. They have totally 62% of ownership in Litium. FastPartner AB which is the company's venture capitalist owns 26.2%. Approximately 10.2% of ownership belongs to employees whereas the rest, 1.6%, are owned by others. Moreover, the board of directors consists of the above three founders and three independent directors: Lars Karlsson representing FastPartner; Bo Irestahl representing DHL; and Joakim Falkang.

4.1.2 Market position and growth strategy

According to the details described below, it can be seen that Litium is a fast-growing information technology company the strategy of which is to grow through product development, market development, and related diversification. Litium acquired Luthor Industries AB, Greenmill Consulting AB, and Dupoint AB so as to be able to access to experienced staff, new technologies, and customer bases. The company also opened two new business units: Mobile Applications and Project Management to extend its product ranges and markets. This strategy for growth is very important for the firm operating in the industry that only the large players who offer unique innovative products can achieve the highest shares in the market. As Kristina told us about the current position of Litium in the market:

"We are number two in Sweden in content management tool and number one is very large firm and then Litium but there're so many small companies doing this as well…"

However, small companies confront the challenges to continue the business because of the rapid change in technologies and customers’ demands. Kristina said that:

"There are a lot of companies (with) five to ten employees…started around year 2000… a lot of companies grew…but actually now they felt that…they are too small and they can’t keep on developing growth…developing their tool all the time…and technology’s changing all the time…a lot of small companies have difficulties right now because they can’t keep on developing their tools as their customers want to…"

It is obvious that the market condition provides an advantage for Litium and other large companies as Kristina further described that in this industry there were approximately 1,000 companies in Sweden; however, 990 of them were small IT firms. Inevitably, many of them tended to go bankrupt or otherwise were bought by large players. And in the near future, there may be 10 players in the market instead of 1,000 players. As a result of high competitive environment, Litium therefore implements the strategy for growth through both product and market development as well as related diversification. Kristina also emphasized the important of a development team and the acquisition of small firms in order to strengthen the company’s position in the market and to enlarge the customer base.

"We are a large player…and we have the development team in our company…so we can keep on developing our tools and we get customers from those small (companies) that can’t keep up on developing their tools…"

As a result of favorable market conditions and its competitiveness, Litium implements the strategy for growth through product development, market development, and related diversification. These strategies therefore enable Litium to achieve the long-term revenue goal 2009. Obviously, one influential strategic move is the growth through acquisition.
In December 2002, Litium acquired Luthor Industries AB, which led to expanding the company’s product range to an environmental management decision-making platform and to acquiring many key staff. The company also obtained a number of licensed software technologies which then strengthened the company’s core competencies in content management and web solutions tools. In October 2003, Litium opened a new company, named Litium Mobile Applications AB, which subsequently created 5 million turnover and 0.4 million net incomes during the operation period of July 2004-December 2005 (see Table 6: Litium Mobile Applications AB’s financial information during 2004-2005 in Appendix). Moreover, the financial results were positive for Litium as the company achieved 8.2 million in sales and 0.34 million in profits (see Table 7: Litium Affärskommunikation AB’s financial information during 2003-2006 in Appendix and Figure 1 below). The company also served more than 200 customers, particularly in Jönköping area. In May 2004, Litium acquired Greenmill Consulting AB, Stockholm-based IT company, in order to expand the product to web publishing. This acquisition enabled Litium to have not only a high quality product but also a group of high-qualified employees who specialized in Microsoft.Net and Java programming. Although sales increased to 9.2 million, the company experienced loss 1.1 million due to higher personnel cost of 1.3 million.

In 2005, Litium invested significantly in new product platform, called Litium Studio 4, which was a master version of web publishing tools. In order to support the company’s growing business, Litium recruited more staff to fulfill both management and consultant positions. The company also achieved nearly double turnover as sales increased 76% from 9.2 million in 2004 to 16.3 million in 2005, with the profit of 0.68 million. In 2006, Litium acquired Dupoint AB, a Stockholm-based company, for a 40-customer base, which then enabled Litium to expand the market to offer these customers web solutions product. In addition, the firm also set a new business unit called Project Management through the cooperation with a partner company namely DHL. Thus it appears that Litium achieved the very positive financial result at the end of the year as sales grew from 16.3 million in 2005 to 22.5 million in 2006 and profit increased 95% from 0.68 million in 2005 to 1.3 million in 2006.

Figure 1: Litium’s sales, personnel cost, and profit(loss) during 2003-2006

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In summary, during 2002-2006, Litium acquired three companies, Luthor Industries AB, Greenmill Consulting AB, and Dupoint AB, and set up two new business units: Mobile Applications and Project Management. This enables Litium to continue product and market development, which then leads the company to achieve rapid growth in highly competitive business environment.

4.2 Entrepreneurship in Litium

According to the evidence described in the following paragraphs, it may be argued that Litium exhibits entrepreneurship in the extent of entrepreneurial culture and creative innovation. The company has the culture that values collectivism aiming at the greatest benefit for the company as a whole while simultaneously allows individualism and encourages freedom within business units to create their own way of doing things so as to reach the corporate goal. Litium is also considered to have low power-distance and low uncertainty-avoidance cultures as the company tends to maintain flat structures and promote free flow of communication so that organizational members can be flexible and adaptive to change. The firm is likely to balance between masculine and feminine cultures. That is, on the one hand, the company seems to have aggressive ambitious to achieve growth, on the other, the firm also tends to promote cooperation within the organization in order to enhance cross-selling of existing products to customers in other business unit areas. This culture is likely to facilitate the company’s strategy for growth the aim of which is to create innovation through product development, market development, and related diversification. Moreover, the company seems to emphasize horizontal integration through acquisition in order to gain a competitive advantage from the synergy among business units.

Regarding entrepreneurial culture in Litium, we can describe in four important aspects which according to Hofstede (1981) comprise individualism versus collectivism, power distance, uncertainty avoidance, and masculinity versus femininity (cited in Burns, 2005, p. 110). First, it appears that Litium seems to have both individualism and collectivism cultures. On the one hand, collectivism can be seen from management perspective for instance the bonus system which is based on both the company’s overall profitability and individual business units’ performance. As we discussed with Kristina, it seems that the company does not want to create the competition among four business units. It might be problematic if the company paid bonus based on only individual performance. This may result from the fact that content management and web solutions seem to have a strong established products and market whereas the young new business units like mobile application and project management are in the process of product and market development. On the other, individualism tends to be displayed in each business unit as three business unit managers described the culture in their organization as:

Morgan: ‘Culture is ‘high at ceiling’. Innovation and flexibility dominate over control. Individualism is greater than the collectivism.”

Hans: “Individualism, flexibility, professionalism”

Daniel: “We have gone from innovativeness and flexibility to more control, but still we are pretty flexible. But everything is based on that every person takes its own responsibility.”

It appears that there is a high level of autonomy within each business unit. Morgan and Hans tend to emphasize individualism in the extent that every member has his or her own responsibilities and can create his or her own ways of doing things. Similarly, Daniel also emphasizes innovativeness and flexibility culture as well as considers the individual ac-
countability. Moreover, all of them encouraged team work spirit as well as gave freedom
and autonomy to the employees. However, Daniel further mentioned about the boundary
of freedom he gave to his people that:

“Absolutely, but of course within given boundaries (i.e. budgets, estimates etc.)”

In relation to power distance, Litium is likely to exhibit low power-distance culture which
according to Burns (2005, p. 111) refers to the culture that encourages open and informal,
information flows within organizations and tends to have flat structures. While Morgan de-
scribed that he could update his IT information through informal discussion with his col-
leagues, Kristina also explained Litium’s culture that encouraged free flow of communica-
tion that:

“The culture is (that) no one would be afraid for saying what’s their opinion…I think, that happens all the
time…”

Hans suggested that Litium had a decentralized organization structure. Also Daniel and
Morgan described that:

Daniel: “It’s pretty decentralized. I’m responsible for the business unit and the sales organization. We also
have a consultant manager who is responsible for the consultants. Within the different projects we have pro-
ject managers and system architects that are responsible for delivering and manage the projects.”

Morgan: “Organization is decentralized to a large extent. There are some centralization within business
units, but little.”

Morgan further explained that in general Litium had a decentralized structure which could
be seen through four independent business units; however, there was important to have a
team leader in each business unit, which meant project manager, so as to set the goal and
control the course of action to achieve that goal. In addition, Morgan, Hans, and Daniel
emphasized flexibility culture in Litium, which then leads to the low uncertainty avoidance
culture. This means that the organization has a high level of ambiguity tolerance, a prefer-
ence of flexibility, a focus of personal choice and decision making, and a team-play spirit.
Kristina also advocated creative spirit in Litium that:

“The culture is that ok… you try new thing”

“We have to try…and learning by mistake...”

It seems that Litium exhibits both masculinity and femininity cultures. The latter refers to
the culture that rewards financial and material achievement with social prestige and status,
whereas the former relates to the culture that promotes modesty, compromise, and coop-
eration (Burns, 2005). On the one hand, masculinity culture in Litium can be seen through
the focus on growth as Kristina emphasized that:

“We have long term revenue goal 2009…The main focus is on revenue...Growth is number one and prof-
itability is number two”

“We know that we need to get a lot of new customer all the time…And that put the high pressure on the
sales force…”

On the other, femininity culture also displays through the cooperation among business
units as the company is likely to cross-sell the products to the existing customers. Thus the
customers of content management may buy the products from web solutions, mobile ap-
lications, or project management. This may result from the fact that the ultimate goal of organizational members is the overall performance of the company.

In the extent of innovation, Litium tends to focus on product development, market development, and related diversification. It appears that Litium facilitates innovativeness, autonomy, and proactiveness while implementing exploration activities. In order to create incremental change, the company has development team comprising four people working under content management unit. This R&D team has its own profit and loss report and the revenue mainly comes from license fees paid by customers of each business unit. In 2005 the company also reinvested in Litium Studio 4 in order to enhance the development of web publishing tools. Daniel further advocated exploration activities in his web solutions business unit that:

“We’re always evaluating new markets and other business opportunities. We also improve our processes (i.e. how do we deliver projects? How do we sell etc.).”

Regarding the pace of revolution change, it appears that Litium tends to introduce new business unit every 1-2 years and absolutely it takes time to develop a new product as Morgan and Hans mentioned about the investment in new products, new processes, or new markets, particularly in the areas of their concerns, project management and mobile applications, that:

Morgan: “Seldom”

Hans: “Once every second year”

In addition, Kristina also discussed about resources allocation in order to explore new business opportunities that:

“It’s not very easy…we have to do research and look at the market to see…do the market need that product…we have to make trial and error…”

On the other hand, Litium seems to emphasize competitive aggressiveness, risk-taking, and proactiveness while pursuing exploitation activities. In order to achieve market development, the company acquired a customer base for web solutions from Dupoint AB last year. Moreover, Litium also innovated through related diversification as the company set up Mobile Applications in 2003 and Project Management in 2006. Regarding mergers and acquisition strategy for growth, Litium also strengthens content management and web solutions units through the acquisition of Luther Industries AB in 2002 for expanding product range to an environmental management decision-making platform and Greenmill Consulting AB in 2004 for obtaining a new product in web publishing. In order to facilitate innovation, Litium promotes learning orientation and R&D activities. Indicating in the budget of 2007, the company allocated 0.23 million SEK to web solutions unit for education and training, especially for sales forces and consultants. Kristina also mentioned that total investment for R&D was approximately 6% of total cost. For project management, Morgan further described that R&D was around 15% of total cost as the business unit had been established since last year and he and his colleague were working for the product development.

Therefore it may be argued that Litium is considered as an entrepreneurial organization according to CFO and business unit managers perspectives. The company has an entrepreneurial culture, which in turn creates an environment that supports entrepreneurship spirit within the organization. It also aims at balancing between collectivism and individualism, maintaining low power distance and low uncertainty avoidance, and harmonizing masculine
and feminine cultures. Moreover, Litium also encourages innovation through product development, market development, and related diversification. While Litium encourages incremental change and exploration activities through R&D development team, the company also creates revolution change and exploitation activities through the acquisition in order to expand the product portfolio and to extend the customer base.

4.3 The development of management accounting in Litium

It may be argued that management accounting in Litium is developing and moving from an early stage toward the growth stage. In recent years, the company experiences fast-growing, which then leads to the implementation of more formal management accounting techniques. While the basic accounting practices such as the aspects of book-keeping and administrating is still in place, the due diligent tasks, particularly mergers and acquisition, are becoming increasingly important in Litium. This also emphasizes the consulting aspect of accounting departments’ work in order to facilitate management decision making. Although budgeting is an important management accounting tool for planning and control, the company tends to implement it flexibly so that it goes in line with entrepreneurial activities and uncertain business conditions.

During the early stage, Litium focuses more on finance accounting and budgeting. While the former refers to the production of financial statements (Collier, 2006), primarily for interested parties such as the board of directors, venture capitalist, and governmental agencies, the latter relates to the development of an annual budget for strategic planning. It is likely that at this stage most of accounting works in Litium are concerned with book-keeping, administrating, and controlling through budgets. Litium uses accounting software package namely “SPCS” to help recording business transactions. In the aspect of administrating which according to Mouritsen (1996) refers to the work associated with debtor and creditor, Litium regularly follows-up outstanding accounts receivable. As a result, we could see the positive improvement in terms of the increase of undue accounts receivable (%) and the decrease of long-aged accounts receivable over 31 days (%) presented in the company’s business ratio report as of Q1 2007. Moreover, the company also uses budgeting to set goals and allocate resources so as to be on the right track in order to achieve the long-term revenue goal of 2009.

Entering the growth stage, Litium tends to move toward more formal management accounting. The company also considers both financial and non-financial performance as well as emphasizes the accounting work of consulting. Besides budgeting, Litium has the business ratio report that covers financial and non-financial performance for instance the percentage of consultant hours that are spent on customer projects and that can be invoiced to customers, the operating and profit margins, the proposal of customer order in consultant hours and in weighted SEK, and the percentage of accounts receivable outstanding. While Litium uses the budgets to control and keep track on costs and targets, the company also emphasizes the consulting aspect of accounting work, particularly in the extent of ad hoc tasks relating to mergers and acquisition. The company further applies management accounting for decision making in the areas of marketing campaign, acquisition of licensed software technologies, and recruitment of consultants and sales people to support growth.

Thus it may be argued that management accounting in Litium are developing from basic financial accounting toward more formal management accounting. The aspects of accounting work are extended from book-keeping and administrating toward consulting. Neverthe-
less, the company still implements controlling work through budgeting in the flexible manner. While the cost and benefit thinking in relation to management accounting tends to be dominant, the ‘lighter’ version of modern management accounting tools seems to provide a substantial benefit for Litium to manage fast-growing while maintaining entrepreneurial spirit within the organization. Above all, the company aims at achieving a sustainable growth and development in the highly competitive business condition.

4.4 Accounting Tasks in Litium

According to our empirical evidence presented in the next paragraph, it can be seen that budgeting is an important accounting task in Litium as it helps management to set goals for the year so as to reach the long-term revenue goal of 2009. The company also has reporting activities on a monthly basis and prepares quarterly management report together with the variance analysis between the budget and the actual results. These reports are then submitted to the board of directors. Although Litium does not have R&D project control report, the firm still prepares profit and loss statement for the development team separately from the content management unit. Moreover, it appears that ad hoc tasks, particularly mergers and acquisition, become a significant management accounting tool for strategic decision making in Litium. In addition, following up key performance indicators appears to be important for the company to know if their resources are being used efficiently.

It is apparent that budgeting is an important management accounting practice for planning and control in Litium. Based on expected sales revenue from business unit managers, annual budgets are prepared during November each year. The company then investigates the variances and revises budgets every quarter. While Lukka and Grandlund (2003) and Granlund and Taipaleenmaki (2005) recommend ‘rolling budgets’ as a useful tool for management control to deal with the turbulent environment and to be more flexibly than using only traditional annual budgets, there is no such use of rolling budgets in Litium. It seems that time and people are the main concerns. As Kristina once said that:

“…as I think I told you since we are growing so far all the time……the time is not there so…I know a lot we should do but we don’t really have time…”

“…we can’t afford that (modern MAS)….but we need to keep track, to keep to follow-up the KPIs….and follow up what is wrong…why did we do the budget here…take action rather than have a perfect cost allocation…”

As a result, costs and benefits are firstly evaluated before implementing management accounting techniques. Although Litium does not use rolling budgets, the company can maintain flexibility by using the budgets as a planning mechanism to set clear goals and directions as well as revising them quarterly in order to be adaptive to change. The company also uses the budgets to help making decisions about hiring new staffs and allocating resources for marketing campaign and investment in new technologies. Moreover, Litium calculates cost in two main categories: direct and indirect costs. According to the 2007 budgets of web solutions unit, direct costs include license fee and operating cost whereas indirect costs cover personnel cost, marketing, office cost, consultant fee, communication cost, travel cost, representation or customer relation expense, finance cost or bank charge, depreciation, and other expenses. According to Collier (2006), direct costs can be defined as costs that are traceable to particular products or services. In contrast, indirect costs are necessary to produce a product or services, but are not able to be traced to particular products or services (Collier, 2006). Indirect costs are therefore often referred to
overhead costs (Collier, 2006). In case of Litium, there are some parts of indirect costs that are allocated by the percentage of personnel cost of each business unit. As Kristina explained about cost allocation that:

“Web solution has thirty-nine percentage of total personnel cost so they get thirty-nine percent of …all the overhead…so if overhead has… office, communication cost, IT, financial cost…”

The allocated costs include office cost (office rental charge, cleaning, insurance, office supplies, furniture from lease), communication cost (internet, telephone, and mobile telephone), and finance cost. Thus Litium’s indirect costs consist of traceable costs and allocated overhead costs.

However, it may be argued that overhead costs may be allocated more effectively by using activity-based costing (ABC). According to Collier (2006), ABC refers to the method that tends “…to identify a more accurate method of allocating overheads to product/services. ABC uses cost pools to accumulate the cost of significant business activities and then assigns the costs from the cost pools to products based on cost drivers, which measure each product’s demand for activities.” (p. 202). While the cost pool accumulates the cost of business processes (e.g. purchasing), the cost driver is the significant cause of the activity (e.g. no. of purchase orders). Collier (2006) further suggests that “Rates are calculated for each cost driver and overhead costs are applied to product/services on the basis of the cost driver rates.” (p. 203). Thus it seems that, in the case of Litium, office rental charge may be allocated to specific business units according to the office areas they use or that communication cost may be allocated to each business unit according to the employees who use that service (internet, telephone, and mobile phone). Nevertheless, ABC is likely to be more complicated and time-consuming. This method therefore tends to be less applicable for Litium.

Regarding reporting activities in Litium, CFO and an accountant are responsible to provide financial statements on a monthly basis. The company also prepares quarterly financial reports to the board of directors. Moreover, CEO and CFO investigate and explain the variance between the actual and the budget to the board as well. In the extent of continuous R&D project control, Litium does not have R&D project control report; however, the R&D development team comprising four members has its own profit and loss statement separated from content management unit. While the revenues primarily come from license fee, the major expenditure is concerned with personnel cost. In association with temporary ad hoc tasks in Litium, there is no task relating to private placement funding or initial public offerings which are described as highly preferred tasks by Granlund and Taipaleenmaki (2005). This may result from the fact that the company seems to have no plan to sell the stocks in the market.

However, the company has due diligent tasks, especially mergers and acquisition activity, which Kristina once said that she had to spend almost five months on this ad hoc task last year. As a result of highly competitive business condition, it is apparent that this MAC-task becomes an important management accounting for strategic decision-making in Litium.

Finally, performance measurement is also recognized as an important task for controlling purpose in Litium. According to Kristina and business units managers, following up key performance indicators provides them a good picture of business activities that are performed as well as ensure that the company is operating efficiently. The detailed information regarding this task will be discussed further in part 4.6.

Therefore it can be seen that management accounting techniques such as budgeting, reporting activity, MAC-tasks and performance measurement are significant accounting
works in Litium. While budgeting allows the management to set a clear goal and direction, reporting activity on a monthly and quarterly basis enables the company to keep track on the budgets. MAC-tasks also become important for the company to achieve rapid growth, which then leads to promising product and market development. Moreover, performance measurement appears to be a good tool in order to review actions taken and to ensure that the company uses its resources efficiently.

4.5 Budgeting in Litium

In part 4.4, we described budgeting as a significant task in Litium. In this part we will further analyze how a budget is actually made and controlled in the company. We also discuss the role of budgeting for management and its connection with entrepreneurship.

4.5.1 The practice of budgeting

According to Collier (2006), there are two approaches of budgeting: top-down budgets and bottom-up budgets. In top-down budgets, senior managers set the revenue targets and spending limits that they believe are necessary to achieve profits that will satisfy shareholders. Meanwhile, bottom-up budgets are developed by the managers of each department based on current spending and agree plans, which then aggregated to the corporate level.

In the case of Litium, the budgeting process can be described as the combination of top-down and bottom-up approaches. Kristina described the budgeting process as follow:

“It(budgeting) is made bottom up, by the business unit managers and then slightly adjusted top down by CFO/CEO. It is made in November/December, approved by the board and then used to follow up actual against during the year. If we find out that it needs to be adjusted, we make a forecast which is the adjusted budget.”

In particular, firstly budget targets such as sales of product and service in SEK, sales of license in number and cost are set by business unit managers who are working closely with sale force in their departments. In order to predict budget targets, Morgan depended on market information; own cost which means sale cost, salary, administration cost, cost for developing products; and the possibility of growth, Daniel relied on the general economic development, type of investments he was planning to do and Hans used his previous experience, information from market and the history of company development. Then the budgets are adjusted top down by CEO and CFO based on the goal set by the board in the firm’s long term strategy. More specifically, CEO and CFO will compare the targets set by business unit managers with the goal in the long term strategy in order to set the budget for the whole year. However, according to Kristina, in fact the targets set by business units managers are usually higher than the goal they have in the long term strategy. Therefore, budget in Litium is mainly made bottom up. In other words, as explained by Kristina, Litium lets the business unit managers set their own goals and promise to reach the goals with CEO. CEO will deliver the budgets set by business unit managers rather than going top down to ask business unit managers to reach the goals that they do not involve in the setting process. A detailed budget which include cost and targets is prepared by each business unit manager. CEO and CFO will consider the result if their middle managers meet these goals or not. A budget in Litium looked basically as Table 8 in Appendix.

In the extent of budgetary control, which is concerned with ensuring that actual financial results are in line with budgets (Collier, 2006), Litium does variance analysis every month in
order to investigate variations between actual results and budgets. Particularly, actual sales/revenue and cost are compared with budgets in percentage. When the company sees that certain market conditions has changed dramatically and therefore they can not reach the targets, the budgets will be adjusted. Adjusting budget is conducted quarterly. The updated version of budget has to be submitted to and approved by the board. The sample of variance analysis in Litium is shown in Table 9 in Appendix.

4.5.2 The discussion on budgeting

4.5.2.1 Budgeting – a useful tool for management

In contrast to the idea that budgeting is an unnecessary evil and should be abandoned (Wallander, 1999), in Litium budgeting turns out to be a very important tool for management. When being asked about their views on budgeting both Kristina and Morgan agreed that it is very good tool for their managerial work.

The first benefit of budgeting is to provide a clear goal and direction. According to Kristina:

“The advantage of budgeting is that it goes into detail, we have to think exactly what we are going to do next year...yes, budgeting gives me a clear goal.”

This sentence can be interpreted that budgeting provides a detailed plan for her as CFO of Litium. Involving in budgeting process helps her to get a clear goal and direction for the future of the company. Sharing the same idea with Kristina, Morgan also pointed out that:

“Very good, now...Advantage of budgeting is to have a goal.”

He further explained that sitting down to make a budget required him to think carefully about targets/goals that he wanted to achieve for the next year; the costs that his business unit would be likely to spend and the approaches that he would use to achieve the goals.

Another role of budgeting pointed out by Daniel was that it helped to review business activities. In this sense, it can be referred to feedback process of budgetary control.

“It is measurable and it gives us a good picture of how our business unit is performing.”

In addition, Kristina also emphasized the role of budgeting as a warning. She said:

“Budget works as a warning for the situation when the company might not be able to meet the targets.”

In this respect, she implied that budgets could provide signals warning that the company needs to change the directions and processes to be able to reach the targets.

Moreover, according to Kristina, budgeting is also a useful tool to make sure that the company is following the right track. She furthered said that budgeting helps leaders in Litium to know the existing capacities that the company has and decide how fast they should move.

Finally, Kristina described budgeting as a motivating tool. In this line, she explained the high targets in budgets motivate both managers and employees to work hard to meet targets. More specifically, high targets put a lot of pressure on sale forces. She said:

“We have a very high target and we know that we need to get a lot customers all the time and that puts a lot of pressure on the sale force to get new customers.”
However, budgeting also has some disadvantages. According to Kristina:

“Because everything is changing and we can not know exactly what will happen in the next year so it difficult to make a perfect budget.”

Morgan appeared to have the same view with Kristina when we asked him about the disadvantages of budgeting. His answer was:

“It is difficult to make a budget...there are many uncertain factors in a so young business.”

Implying uncertainty as well, Daniel expressed his ideal about the weakness of budgeting:

“A budget is always a budget. The only thing you can be sure of is that our business unit will not perform according to the budget. It’s ether better or worse, but never on budget.”

These opinions can be interpreted that uncertain factors from the environment cause difficulties for making a budgeting. Sometime, budgeting can not be a perfect plan for the future where exists a lot of uncertain things. Nevertheless, Kristina emphasized despite this difficulty, budgeting was still an useful tool for her to manage the company because market is changing favorably for Litium and at the moment the company still can predict and react well to the changes from the market. She said:

“The environment is changing but it is not changing all the time, the technology is developing...It is not chaotic, and the market is changing in the way that a lot of small companies can not really make any more (can not continue their business)...So we can acquire them at cheap prices.”

In addition, even in the case the company failed to meet the targets because of uncertainty according to Kristina, making a budget still help her to learn experience from failure. She said:

“This (failure to meet the targets in budgets) is a learning process.”

4.5.2.2 Budgeting and entrepreneurship

In Litium, it can be seen that budgeting is in harmony with entrepreneurship from four aspects.

First of all, budgeting supports the growth-oriented strategy of the company. Entrepreneurial scholars already acknowledged that a growth orientation is a typical characteristic of an entrepreneurial organization. Roberts (1999) defined growth as “an opportunity to generate economies of scale and scope by performing larger amounts of work with proportionately less people” (p.371). Accordingly, growth-oriented firms need to adopt a new competitive mindset – one in which flexibility, speed, innovation and strategic leadership are valued highly (Kuratko & Welsch, 2004). Therefore, it can be said that growth-oriented strategy is one factor that leads to entrepreneurial spirit in organizations.

In addition, management accounting systems (MAS) which include budgeting have been considered as a tool for formulating and implementing strategies in previous literature. For example, Chenhall and Morris (1995) argue that “MAS can help managers formulate strategies in ways to create sustainable economic value for the organization. Also, they can provide useful diagnostic control during the implementation of strategies, ensuring that operations are maintained on course.” (p. 486). Blumentritt (2006) further emphasized the close connection between budgeting and strategy because an effective budget can not be prepared unless the firm has made its strategic decisions, but strategy execution is likely to be inefficient and unprofitable without the fi-
nancial guidance of budgets. Consequently, companies should integrate strategic management and budgeting. Sharing the same view, Auzair and Langfield-Smith (2005) suggest that MAS including budgeting should be tailored explicitly to support the strategy of the business in order to lead to superior performance. As a result, budgeting is considered to be a tool to support the strategy formulation and implementation in companies.

In the case of Litium, it can be seen clearly that budgeting process is conducted closely with the long term growth strategy and is an useful tool to implement the growth oriented strategy. According to Kristina, the first priority in the Litium’s long term strategy is growth. She said:

“As a whole we have a long term strategy with a long term revenue goal so the main focus is revenue but profitability is important as well but we need to grow...so growth is number one, profitability is number two.”

In particular, the long term goal which aims at growth worked as a standard to compare with the goal set by business unit managers before Litium produces a budget. A complete budget then had to satisfy both the board and business unit managers. In other words, it had to illustrate the goal in the long term strategy but still consider the hand on resources which are very necessary to implement successfully the strategy.

Additionally, according to both Kristina and Morgan, involving in budgeting process provides them a clear goal and direction. Morgan also said that the targets in budgets were delivered to employees so that every body know where they should go, what they were expected to achieve. In this sense, budgeting helps to communicate clear goals and directions from the board, top managers to all middle managers and employees so that they can be proactive in their daily work in order to achieve the targets. Therefore, it can be argued that in Litium, budgeting is a useful tool to support the growth oriented strategy formulation and execution and hence exists in harmony with entrepreneurship.

Another aspect which can explain for the peaceful coexistence of budgeting and entrepreneurship in Litium is the fact that bottom-up budgeting approach offered autonomy for business unit managers to determine the targets on their own and hence may encourage their commitment to achieve the goals as well as their entrepreneurial mindsets.

Burns (2005) points out that in order to encourage entrepreneurial behaviors, organizations should provide freedom and autonomy for employees. Similarly, Merchant (1998) suggests that autonomy is particularly desirable where creativity is required because autonomy allows room for new and innovative ways of thinking. In the budgeting process of Litium, top managers empower business unit managers to set the budget targets. By this way, business units managers can have autonomy to determine the targets that they believe and are reasonable. In addition, bottom-up budgeting approach provides business unit managers with a sense of belonging which can motivate them to bring their entrepreneurial thinking into play in order to achieve the budget goals. When we asked Morgan if involving in the budgeting process makes him more commit to meet the targets he answered:

“Yes, for that reason, I involved in setting budget targets.”

He further explained that participating in budgeting process made him feel the budget like his own and therefore he was more interested in following up the targets.

Similarly, Daniel and Hans agreed that participating in budgeting process made them more interested in achieving the goals. Hans wrote to us:
“Of course (I have more commitment to meet the targets) since it is us who sets the budget and makes the following up.”

This empirical evidence of our study is also consistent with other studies which point out that participative budget is able to enhance managers’ commitment to achieve the goals and therefore increase organizational performance. For example, Ahmad, Sulaiman, and Alwi (2003) suggest that participating in budgeting process provides managers with a sense of belonging (“this is our budget”) and increases the possibility that they will make greater attempts to achieve the organization’s budgetary goals. As a result, it can be argued that in Litium, bottom-up budgeting approach offers business unit managers an autonomy which is important for entrepreneurship. In this line, again it is apparent that budgeting does not conflict with entrepreneurial spirit in the company.

Moreover, budgeting may even help to facilitate entrepreneurship in Litium since it plans resources for innovation and product development. According to Burns (2005) in order to enhance innovation, organizations should provide slack for employees. More specifically, employees should be offered resources in term of time, money, physical space so that they can be innovative. In Litium, the company plans resource for R&D and product development in their annual budgets. For the whole company, this cost accounts for 6% of the total cost. It is very important to note that how much resource is allocated for innovation depends on the requirement of each business unit. For example, in the project management business units where there is high demand for product development, the cost budget for R&D is up to 15% of total cost. In the content management business unit, the company establishes a R&D team with four employees. The cost for this activity is calculated as salary in annual budget.

Finally, according to Kristina, Litium does not have any punishments when business unit managers can not achieve the targets in budgets. According to Lovstal (2001), entrepreneurial actions are risky and employees are motivated to take risk when they are not worried about being punished in the case of failure. In Litium when business unit managers are not constrained by punishment for failure to meet the targets in budgets they may be more willing to follow risky entrepreneurial activities. As a result, it can also be seen that budgeting does not conflict with entrepreneurship in the company because the failure to meet the targets does not constrain entrepreneurial spirits of business unit managers.

Despite the evidences showing that budgeting is in harmony with entrepreneurship, there is an opinion arguing that budgeting conflicts with entrepreneurship. When we asked Daniel about his view on the relationship between budgeting and entrepreneurial spirit, he answered:

“It (budgeting) hinders (entrepreneurial spirit) because every employee has to take the budget and key indicator into account when performing a task.”

In this sense, he might imply that having targets which are already set in budgets can reduce employees’ ability to adapt with changes and therefore hinder entrepreneurial spirit. His opinion is consistent with Wallander (1999) who argued that budgeting might hinder people from adapting to new situations.

4.6 Performance measurement

In part 4.4, we also claimed that performance measurement is an important task in Litium. In the following section, we will go into details relating to the use of key performance indi-
4.6.1 Key performance indicators

Litium uses both non-financial and financial indicators to measure performance. The main indicators are Debiteringsgrad, Beläggningsgrad, and Faktureringsgrad:

- **Debiteringsgrad** means “the time possible to debit a cost object”. This indicator measures how many number of hours that could be invoiced in comparison with number of working hours per month.

  \[
  \text{Debiteringsgrad} \% = \frac{\text{Number of hours invoiced}}{\text{Number of working hours}}
  \]

- **Beläggningsgrad** means “the degree to which capacity is used”. This indicator compares the number of hours in customer project and the number of working hour per month.

  \[
  \text{Beläggningsgrad} \% = \frac{\text{Number of hours in customer project}}{\text{Number of working hours}}
  \]

- **Faktureringsgrad** means “the time possible to charge a client”. This indicator expresses the invoicing rate.

  \[
  \text{Faktureringsgrad} \% = \frac{\text{Number of hours invoiced}}{\text{Number of hours in customer project}}
  \]

All three above indicators aim at evaluating the efficiency of consultants’ work. Kristina explained the meaning of these indicators as follow:

“You know we have consultants. It is very important for us to know how much they are working in customer projects. If they work 40 hours a week, we need to know how much they are working on customer projects, if they are working 100% in customer projects or 50% in working projects and 50% in internal projects. If they work 40 hours for customer projects we need to know how much we can invoice the customers.”

Particularly, these three indicators help her to measure performance of consultants based on how efficiently consultants work in customer projects.

In addition to the indicators aiming at the efficiency of consultants’ work, Litium also uses indicators to measure performance based on profit for instance profit per employee per year; operating margin, and profit margin. Indicators regarding sales and revenues include
average price per hour, revenue per employee per year, orders in hours, offers in SEK, license fee for product. Other indicators include number of employees, number of hours in development, accounts receivable, and solidity (see more details in Table 10 in Appendix).

## 4.6.2 Discussion

### 4.6.2.1 The use of financial and non-financial indicators

As we discussed in 2.4.4, according to previous scholars such as Merchant (1998) and Lukka and Granlund (2003) using only financial indicators is not good enough to measure performance in knowledge intensive firm such as NEFs. Our empirical evidences from Litium appears to be consistent with this suggestion. Even though Litium uses both financial and non financial indicators for performance measurement, their main indicators are financial which are Debiteringsgrad, Beläggningsgrad and Faktureringsgrad. Despite the fact that these three indicators can help Litium to measure the efficiency of consultation work, they appear to be not good enough to evaluate intangible assets such as knowledge and competences of consultants. When we asked Kristina if she thought that the current indicators could evaluate the knowledge development of consultants she answered:

“No, I don’t think so.”

Morgan also claimed current key performance indicators (KPIs) were:

“good in some ways however they measure only the work is taking place but do not consider soften assets such as enthusiasm, knowledge development and cooperation.”

In this sense, he implied KPIs in Litium consider only the actual work of consultants such as how much time they worked, how much time they could invoice but ignore the other intangible assets, which were also important, such as knowledge development, enthusiasm and corporation of employees. He concluded performance measurement in Litium should be developed so that it can provide a clear measurement for employees’ performance:

“They (KPIs) need to be changed because they need to be clearer for employees.”

Hans also shared the same view with this issue:

“It is always hard to measure professionalism, that is something the customer decides.”

In his opinion, professionalism which also reflects knowledge of consultants is very challengeable to measure because it depends on customers’ evaluation.

### 4.6.2.2 Performance measurement and entrepreneurship

Regarding the connection between performance measurement and entrepreneurship, many scholars (e.g. Kaplan & Norton, 1987 (cited in Collier, 2006); Mouritsen, 1998) suggested that in order to enhance entrepreneurial activities, companies should introduce new instruments such as balanced scorecard and intellectual capital that bring toward entrepreneurial issues. In the case of Litium, the company has not applied any modern performance measurement systems and even has not paid much attention in measuring performance related to innovation and creativity.

When we asked Kristina how she measured the value of innovative and entrepreneurial activities in Litium, she answered:
“Oh, I don’t know, I do not have it, I do not measure at all.”

Although Kristina pointed out that she used one indicator relating to R&D which is the number of hours in development, she said this indicator did not help her to evaluate the performance of R&D employees. She told us:

“We have the time in R&D, that the only KPI we have but that is not really related to performance.”

Hans and Daniel also stated in their emails that they did not measure performance related to product development and innovation. Morgan appeared the only one who concerns measuring performance of product development and innovation. In fact, he did such measurements by the way which he called “creating subjects”. However, he claimed:

“If(measuring performance of development and innovation) is not good, it is very difficult.”

Given that Litium is an entrepreneurial company where innovation and creativity are encouraged, ignoring to evaluate performance of such entrepreneurial activities turns out to be a weakness. Kristina expressed her opinion:

“we don’t have that (measuring performance of entrepreneurial activities) and sure we should have that.”

Previous studies already acknowledged the importance of entrepreneurial activities to performance of organizations. For example, empirical study by Wiklund and Shepherd (2005) proved that entrepreneurial orientation has a universal positive influence on small business performance. By such finding, the study further implies the possibilities of measuring entrepreneurial aspects within performance measurement. Similarly, Copper (1994) highlighted the important role of product innovation in the success of businesses:

“Indeed, product innovation represents the last frontier within the corporation where significant productivity improvements can and should be sought” (p. 75).

Going in the same line, Johnson and Kaplan (1987) argued that profits can be achieved not only by selling more or producing less but also by supporting a wide variety of activities such as financial entrepreneurship, research and development (R&D), promotion, quality improvement, and humane resources, all of which are vital for companies’ long term performance (cited in Collier, 2006). In addition, Jiménez-Zarco, Martínez-Ruíz, and González-Benito (2006) suggested the success be a multidimensional concept and highly influenced by other elements such as the market, the customer or the learning ability of the firm. Accordingly, these above ideas imply further that organizations should measure performance of entrepreneurial activities such as innovation and creativity because they are very important for their success.

### 4.6.2.3 Performance-reward linkage

According to Otley (1999), motivation and incentives are one main focus of performance measurement. Previous scholars highlighted that measurements effect behaviours. For example, Catasús, Ersson, Gröjer and Wallentin (forth coming) argued that indicating (measuring act) together with mobilizing (gathering resources to promote act) is positively related to acting (behaviors). Motivation and incentives in performance measurement further involve in rewarding issues. In particular, employees can be motivated by financial rewards in term of salary increases or one-off bonus payments as well as less intangible rewards such as recognition, status and reputation (Otley, 1999). Moreover, empirical stud-
ies point out financial indicators work better with financial rewards (Catasús et al., forthcoming). These ideas highlight the importance of providing reward on the basis of performance measured because “you get what you measure and reward”.

In the case of Litium, performance is considered to provide reward and bonus for business units not employees. Although Kristina explained that “We do not have any individual bonus because we want every one works for Litium, we don’t want competition among employees and business units”, the fact that employees’ bonus is not based on performance may make employees less motivated to achieve the outcomes that the company expects from them. According to Hans, this issue is a weakness that Litium should develop in future. He wrote to us: “we need to base the rewards to it (performance measurement) in the future”.

5 Conclusion

5.1 Summary of empirical findings

In conclusion, Litium is an entrepreneurial organization, which can be seen from different perspectives. First of all, the company has an entrepreneurial culture, which creates an environment that supports entrepreneurial spirit within the organization. Particularly, Litium balances between collectivism and individualism, maintains low power distance and low uncertainty avoidance, and harmonizes masculine and feminine cultures. Moreover, the company encourages innovation through product development, market development, and related diversification. Also the acquisition of other IT companies seems to be an important strategy for growth. While Litium promotes incremental change and exploration activities through R&D development team, the company also creates revolution change and exploitation activities through the acquisition in order to expand product portfolios and customer bases.

Regarding the development of management accounting, Litium appears to develop from basic financial accounting toward more formal management accounting. The aspects of accounting work are extended from book-keeping and administrating toward consulting. Litium also displays controlling aspects through budgeting; however, the company keeps the budgets in a flexible manner so as to be able to be adaptive to changes and uncertain events. In the extent of accounting tasks, Litium tends to implement simple management accounting techniques, specifically budgeting, reporting activity, MAC-tasks and performance measurement by following up their own KPIs. While budgeting allows the management to set a clear goal and direction, reporting activity on a monthly and quarterly basis enables them to keep track on the budgets. Additionally, MAC-tasks also become increasingly important for Litium as the merger and acquisition strategy allows the company to achieve rapid growth as well as efficient product and market development. At the same time, performance measurement helps the management to realize whether the company operates efficiently.

More specifically, an annual budget is mainly produced bottom-up and slightly adjusted top-down. Budgetary control is also conducted through monthly variance analysis. In the case that certain market conditions have changed dramatically and the management sees that they can not reach the targets, the budget will be adjusted. In addition, our empirical study shows that budgeting is a useful tool for the company since it gives clear goals and directions for managers and helps them to review activities that have been taken. Our study also expresses that, in several ways, budgeting is in harmony with entrepreneurship;
however, it may conflict with entrepreneurial spirit in the sense that everyone has to follow
the target already set. In respect of performance measurement, the use of current key per-
formance indicators is good for Litium to learn whether the company operates efficiently;
nevertheless, Litium has not applied any modern performance measurement systems sug-
gested in previous literature.

5.2 Reflections

Regarding the research question, our empirical study shows that in Litium, management ac-
counting activities such as budgeting and performance measurement are used for planning,
decision-making, and controlling. In addition, management accounting is recognized to
have an important role for management and help CFO as well as business unit managers to
have a clear plan and a feedback loop of actions that have been performed. We also found
that despite an opinion arguing that budgeting is in conflict with entrepreneurship, from
many aspects, budgeting is seen in harmony with entrepreneurial spirit in Litium. In order
to keep budgeting in agreement with entrepreneurship, Litium seems to maintain their
budgeting process simple and flexible. For example, we found that Litium conducts only an
annual budget and reviews the budget by variance analysis. Also the company appears not
to spend much time on budgeting because cost and targets are calculated by each business
unit manager and then the budget is submitted to CEO, CFO, and the board. According to
Kristina, the company also does not intend to have more people involve in the budgeting
process in the near future. Further, budgeting is also loosely coupled with business practice
and strategy in the sense that the budget needs to reflect the goal in long-term strategy but
can be adjusted if necessary according to specific conditions of the company and failure in
achieving budgets’ targets is not punished. The simple and basic management accounting
practice can also be seen when Litium does not apply any complicated management ac-
counting systems and conducts only basic tasks that are really important for the business
such as budgeting, reporting, MAC-tasks and measuring performance by following up
KPIs. In addition, at the moment there are only two people, CFO and an accountant, re-
sponsible for accounting role in Litium. Our findings on management accounting in Lit-
ium appear to be in line with the simple and solid management control that is loosely cou-
pled with flexible culture and business practice suggested by Lukka and Granlund (2003)
which we discussed in the introduction part. Under this notion, the authors suggest that in
order to keep management control in harmony with creativity and flexibility, management
control in NEFs should be carefully designed, implemented, and kept relatively light and
simple. Above all, the authors support for the idea that “simple is beautiful” (p. 251). As a
result, following a simple and solid management accounting approach appears to be an ef-
fective way in the company where entrepreneurship is emphasized like Litium.

However, based on our empirical findings and analysis, we recognized four specific areas
related to performance measurement that Litium should improve further. First of all,
profit margin indicator may not reflect the total performance of each business unit. This
results from the fact that the profit is calculated after deducting overheads costs which, in
some senses, can be allocated properly by activity-based costing. Second, it can be seen that
current key performance indicators are not effective enough to measure intangible assets
such as knowledge and skills of consultants. Third, the company does not have formal
procedures to evaluate performance of entrepreneurial activities such as innovation and
creativity. Finally, individuals reward and bonus are not based on their own performance,
which in turn may make employees less motivated to achieve the outcomes that the com-
pany expects from them. Therefore, in order to work more efficiently and to develop
management accounting practice under the pressure of fast growth without stifling the existing entrepreneurial spirit, Litium should take into consideration several recommendations which will be discussed in the following section.

5.3 Recommendations

As previously discussed in the empirical findings and analysis part, according to Catasús, et al. (forthcoming) and Otley, (1999), it is important to provide rewards on the basis of performance because “you get what you measure and reward”. In other words, providing rewards based on performance is considered to be an effective way in order to enhance employees to work efficiently. Considering rewards as a good incentive, we therefore suggest Litium to consider performance as a basis to give bonus and reward to middle managers such as business units, consultant managers and team leaders.

In addition, according to Collier (2006), divisionalization or business unit makes it easier for a firm to diversify, while retained overall strategic direction and control. The author points out that “Performance improvement is encouraged by assigning individual responsibility for divisional performance, typically linked to executive remuneration (bonuses, profit-sharing, share options etc.)” (p. 231). Solomons (1965) also highlighted three purposes for financial reporting at a divisional level: 1. To guide divisional managers in making decisions, 2. To guide top management in making decisions, 3. To enable top management to appraise the performance of divisional management.” (cited in Collier, 2006, p. 232). We therefore suggest the concept of “controllable profit” and apply this concept to “profit before allocated overheads” so as to help measuring short-term performance of each business unit. Moreover, we also agree with Solomons (1965) that “Absolute profit is not a good measure because it does not consider the investment in the business and how long-term profits can be affected by short-term decisions such as reducing research, maintenance and advertising expenditure.” (cited in Collier, 2006). We then further recommend “the Balanced Scorecard” and “Intellectual Capital” to help evaluating long-term performance in both the firm and the business unit levels.

According to Collier (2006), the controllable profit refers to “…the profit after deducting expenses that can be controlled by the divisional manager, but ignoring those expenses that are outside the divisional manager’s control.” (p. 234). Merchant (1987) also advocates that “individuals should be held accountable only for results they can control” (p. 336; cited in Collier, 2006, p. 234). It seems that one of the limitations of operating profit as a measure of business unit performance is the inclusion of costs over which the business unit manager has no control (Collier, 2006). Solomons (1965; cited in Collier, 2006) suggests that so long as corporate expenses are independent of business unit activity, allocating overhead costs is irrelevant since a positive contribution by business units will cover at least some of those costs (see a simplified version of the division profit report in Table 4 below). Additionally, as we mentioned in part 4.3, the company allocates overheads based on the percentage of personnel cost. When we consider the elements of these overheads which include office cost, communication cost, finance cost, etc., it may be argued that office rental charge may be allocated to specific business units according to the office areas they use or that communication cost may be allocated to each business unit according to its employees who use that service. However, we acknowledge that this idea, which applies the concept of activity-based costing, may be too complex and time-consuming for implementation.
Table 4: A simplified divisional profit report

<table>
<thead>
<tr>
<th>Sales</th>
<th>Variable cost of goods sold</th>
<th>xxx</th>
<th>xxx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less</td>
<td>Other variable expenses</td>
<td>xxx</td>
<td>xxx</td>
</tr>
<tr>
<td><strong>Contribution margin</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less</td>
<td>Controllable divisional overhead</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td><strong>Controllable profit</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less</td>
<td>Non-controllable overhead</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td><strong>Operating profit</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: Solomons, 1965; cited in Collier, 2006, p. 234)

Applying the concepts of controllable profit and ABC, we therefore suggest the business unit profit report that might help evaluating the business unit performance. As we described in the previous section, indirect costs in Litium can be divided into two parts. On the one hand, indirect costs that can be traceable to each business unit include personnel cost, marketing, consultant fee, traveling cost, and representation. On the other, indirect costs, that are allocated by the percentage of personnel cost, consist of office cost, communication cost, and finance cost. We thus recommend the classification of traceable indirect costs as controllable costs and allocated overhead cost as non-controllable costs. The details of business unit’s profit report is presented in Table 5.

Table 5: The recommended business unit’s profit report

<table>
<thead>
<tr>
<th>Revenues:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultant fee</td>
<td>xxx</td>
</tr>
<tr>
<td>License fee</td>
<td>xxx</td>
</tr>
<tr>
<td>Support</td>
<td>xxx</td>
</tr>
<tr>
<td>Others</td>
<td>xxx</td>
</tr>
<tr>
<td><strong>Direct cost:</strong></td>
<td></td>
</tr>
<tr>
<td>License fee</td>
<td>xxx</td>
</tr>
<tr>
<td>Operating cost</td>
<td>xxx</td>
</tr>
<tr>
<td>Others</td>
<td>xxx</td>
</tr>
<tr>
<td><strong>Contribution margin</strong></td>
<td>xxx</td>
</tr>
<tr>
<td><strong>Less</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Indirect cost:</strong></td>
<td></td>
</tr>
<tr>
<td>Personnel cost</td>
<td>xxx</td>
</tr>
<tr>
<td>Marketing</td>
<td>xxx</td>
</tr>
<tr>
<td>Consultant fee</td>
<td>xxx</td>
</tr>
<tr>
<td>Traveling cost</td>
<td>xxx</td>
</tr>
<tr>
<td>Representation</td>
<td>xxx</td>
</tr>
<tr>
<td>Others</td>
<td>xxx</td>
</tr>
<tr>
<td><strong>Profit before allocated overheads/Controllable profit</strong></td>
<td>xxx</td>
</tr>
<tr>
<td><strong>Less</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Allocated overhead:</strong></td>
<td></td>
</tr>
<tr>
<td>Office cost</td>
<td>xxx</td>
</tr>
<tr>
<td>Communication cost</td>
<td>xxx</td>
</tr>
<tr>
<td>Finance cost</td>
<td>xxx</td>
</tr>
<tr>
<td>Others</td>
<td>xxx</td>
</tr>
<tr>
<td><strong>Operating profit</strong></td>
<td>xxx</td>
</tr>
</tbody>
</table>

(Source: Web Solutions’ 2007 budget provided by Kristina)
Regarding long-term performance measurement, as the knowledge intensive and entrepreneurial company where intangible assets form the core of operation and where innovation and R&D activities are emphasized, Litium should take into account measuring performance of entrepreneurial activities as well as evaluating intangible assets such as knowledge and skills. As we discussed in the introduction part, the Balanced Scorecard and Intellectual Capital are two popular frameworks that fit well with the companies which desire entrepreneurship and are characterized by knowledge intensity like Litium. In addition, according to Kristina, Litium is presently under the pressure of fast growth and the company needs to develop the management accounting package in a way that does not conflict with the existing entrepreneurship. We therefore believe that developing management accounting in the direction of Balanced Scorecard or Intellectual Capital is suitable for the current condition of Litium. More specifically, this solution can help the company to develop its management accounting practice in harmony with the entrepreneurial spirit that is very important for Litium to achieve a sustainable growth.

The Balanced Scorecard is proposed by Kaplan and Norton in the early 1990s. This framework suggests that companies can be viewed from different perspectives. It includes financial measurements that reveal the outcomes of the actions already taken and is complemented by non-financial measurements such as performance for customers, internal processes and innovation and improvement activities. The information from different perspectives provides the balance between external and internal measurements, allowing managers to look at the business from four important perspectives: financial, customer, business processes and learning and growth (see Figure 2) so as to take into consideration not only short term performance but also long term performance of entrepreneurial actions. In addition, this framework enables organizations to clarify their vision and strategy and translate them into action. With such advantages, the Balanced Scorecard is considered to be an effective framework that provides a full evaluation of performance (Jiménez-Zarco et al., 2006) and has been widely applied in practice (Sveiby, 1997; cited in Jiménez-Zarco et al., 2006). As a result, it is reasonable to argue that the Balanced Scorecard framework in Figure 2 below is a suitable approach for Litium.

![Figure 2: The Balanced Scorecard Framework (Kaplan and Norton, 1996)](image-url)
Alternatively, Intellectual Capital (IC) can also make sense in the context of Litium. According to Stewart (1997; cited in Mouritsen, 1998), in addition to financial measures, IC is concerned with human capital of which the primary purpose is innovation, whether of new products and services, or of improving in business processes; structure capital referring to the knowledge that belongs to organization as a whole such as technologies, inventions, data, publications, strategy, culture, structures and systems, organizational routines and procedures; and customer capital including customer-loyalty, product-brands and corporate image. With an emphasis on such perspectives, IC model considers growth as the outcome of the skillful management of the relationship between tangible and intangible assets and encourages white collar productivity and creativity. Accordingly, it can be argued that IC is suitable for the companies where intangible assets dominate and creativity and innovation which spring from entrepreneurial spirit are highly desired. As a knowledge intensive firm that emphasizes entrepreneurship, Litium therefore can also take advantage of IC model. One example of IC model can be seen in Figure 3 below and the template for IC measurements and representation is illustrated in Table 11 in Appendix.

![IC Model Diagram](image)

**Figure 3:** The example of IC model (cited in Mouritsen, 1998, p.476)

However, it is important to note that both Balanced Scorecard and Intellectual Capital are claimed to be complex and expensive to apply (Collier, 2006; Mouritsen, 1998). In addition, according to Jiménez-Zarco et al. (2006), applying successfully these models depends on the specific condition of each company. In the case of Litium, we want to go back to the idea of “lighter” versions suggested by Lukka and Granlund (2003) previously. More specifically, it may not be reasonable for the company to invest heavily in these frameworks because Litium may not have enough resources for such investments. Rather, Litium should make use of its competence and expertise in information technologies in order to create its own system in the direction of Balanced Scorecard or Intellectual Capital approaches.

### 5.4 Implications

Our empirical findings imply that a simple and solid management accounting is a suitable solution for the specific context of NEFs where entrepreneurship is highly desired. In addition, the study also suggests several directions for future researches. First of all, as we men-
tioned in method chapter, we take a point from leadership perspective. Therefore, further researches can focus on management accounting from other stand-points such as the board or employees. Moreover, this study approaches management accounting on a broad level with an emphasis on budgeting and performance measurement. A suggestion for future researches is to study management accounting more narrowly, by focusing specifically on for example budgets or performance measurement. Finally, in the frame of reference we presented a framework for management accounting in NEFs. Even though this framework is derived from theoretical discussions on NEFs, it can be questioned if the framework or some aspects of it can be applied in every new economy firm. Therefore, a fruitful approach for future researches is to select cases or organizations that are characterized as NEFs but dissimilar to Litium in term of, for example, age, growth, and financial situation.
References


Figure 4: Litium’s organizational chart

Table 6: Litium Mobile Applications AB’s financial information during 2004-2005

<table>
<thead>
<tr>
<th></th>
<th>6/30/2004 9 months</th>
<th>12/31/2005 18 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating revenue / turnover</td>
<td>n.a.</td>
<td>4,994</td>
</tr>
<tr>
<td>Profit (loss) before tax</td>
<td>-64</td>
<td>701</td>
</tr>
<tr>
<td>P/L for Period [= Net Income]</td>
<td>-64</td>
<td>401</td>
</tr>
</tbody>
</table>

(Source: Amadeus database)
Table 7: Litium Affärskommunikation AB’s financial information during 2003-2006

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales (in thSEK)</td>
<td>8,210</td>
<td>9,235</td>
<td>16,276</td>
<td>22,467</td>
</tr>
<tr>
<td>Personnel cost (in thSEK)</td>
<td>6,120</td>
<td>7,464</td>
<td>9,126</td>
<td>13,427</td>
</tr>
<tr>
<td>Sales after deducted personnel cost (in thSEK)</td>
<td>2,090</td>
<td>1,771</td>
<td>7,150</td>
<td>9,040</td>
</tr>
<tr>
<td>Margin (%)</td>
<td>25%</td>
<td>19%</td>
<td>44%</td>
<td>40%</td>
</tr>
<tr>
<td>Profit (Loss) (in thSEK)</td>
<td>338</td>
<td>(1,075)</td>
<td>676</td>
<td>1,318</td>
</tr>
<tr>
<td>Margin (%)</td>
<td>4%</td>
<td>-12%</td>
<td>4%</td>
<td>6%</td>
</tr>
</tbody>
</table>

(% increase/decrease from previous year)

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>12%</td>
<td>76%</td>
<td>38%</td>
<td></td>
</tr>
<tr>
<td>Personnel cost</td>
<td>22%</td>
<td>22%</td>
<td>47%</td>
<td></td>
</tr>
<tr>
<td>Profit (Loss)</td>
<td>-418%</td>
<td>163%</td>
<td>95%</td>
<td></td>
</tr>
</tbody>
</table>

(Sources: Amadeus database and Litium’s annual reports 2004-2006)

Table 8: Sample of Litium’s annual budget for 2007

<table>
<thead>
<tr>
<th></th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>April</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Dec</th>
<th>Sum of 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Turnover</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Direct cost</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gross Profit</strong></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td><strong>Expense</strong></td>
<td></td>
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<tr>
<td>Personnel cost</td>
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<tr>
<td>Marketing Cost</td>
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<tr>
<td>Office cost</td>
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<tr>
<td>Consultant</td>
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<tr>
<td>Communication cost</td>
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</tr>
<tr>
<td>Traveling</td>
<td></td>
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<td></td>
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<td>Representation</td>
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<td>Others</td>
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<td></td>
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<td>Depreciation</td>
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</tr>
<tr>
<td><strong>Sum</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Net Profit</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

(Source: Annual budget provided by Kristina)
Table 9: Sample of variance analysis in Litium

<table>
<thead>
<tr>
<th></th>
<th>Content Mgmt</th>
<th>Budget (Ub* (%)</th>
<th>Web Solutions Budget (Ub* (%))</th>
<th>Mobile Appl. Budget (Ub* (%))</th>
<th>Project Mgmt Budget (Ub* (%))</th>
<th>Total Budget (Ub* (%))</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total revenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Direct purchase</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gross profit</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Operating cost</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total operating cost</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(</td>
</tr>
<tr>
<td><strong>Interest</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Profit before depreciation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Profit</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Margin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Operating margin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Ub* (%) = (Actual results : budget)

(Source: Variance analysis provided by Kristina)
Table 10: Key performance indicators in Litium

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debiteringsgrad</td>
<td>The time possible to debit a cost object</td>
</tr>
<tr>
<td>Beläggningsgrad</td>
<td>The degree to which capacity is used</td>
</tr>
<tr>
<td>Faktureringsgra</td>
<td>The time possible to charge a client</td>
</tr>
<tr>
<td>Snittpris per timme</td>
<td>Average Price per hour</td>
</tr>
<tr>
<td>Antal anställda</td>
<td>Number of employees</td>
</tr>
<tr>
<td>Omsättning per anställd och år</td>
<td>Revenue per employee</td>
</tr>
<tr>
<td>Resultat anställd och år</td>
<td>Profit per employee</td>
</tr>
<tr>
<td>Nedlagda timmar i produktutvecking</td>
<td>Number of hour in development</td>
</tr>
<tr>
<td>Operativ marginal</td>
<td>Operating margin</td>
</tr>
<tr>
<td>Vinstmarginal</td>
<td>Profit margin</td>
</tr>
<tr>
<td>Orderstock timmar</td>
<td>Orders (consultant hours)</td>
</tr>
<tr>
<td>Offerstock timmar (kr Viktat)</td>
<td>Offer (consultant hours)</td>
</tr>
<tr>
<td>Offerstock licenser</td>
<td>License fee for products</td>
</tr>
<tr>
<td>Andel ej förfallna.</td>
<td>Accounts receivable</td>
</tr>
<tr>
<td>Räntabilitet på totalt kapital per år</td>
<td>n/a</td>
</tr>
<tr>
<td>Räntabilitet på eget kapital per år</td>
<td>n/a</td>
</tr>
<tr>
<td>Soliditet</td>
<td>Solidity</td>
</tr>
<tr>
<td>Kassalikviditet</td>
<td>n/a</td>
</tr>
</tbody>
</table>

(Source: Document provided by Kristina)
Table 11: The template for IC measurements and representation

<table>
<thead>
<tr>
<th>Employees</th>
<th>‘That what is’ (statistics)</th>
<th>‘That what is done’ (internal key ratios)</th>
<th>‘That what happens’ (effect ratios)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Length of employment</td>
<td>Share employees with personal development plan</td>
<td>Employee satisfaction</td>
</tr>
<tr>
<td></td>
<td>Formal education and training</td>
<td>Number of training days per employee</td>
<td>Employee turn around ratio</td>
</tr>
<tr>
<td></td>
<td>Expenses for training and education</td>
<td>Expenses for training and education and training per employee</td>
<td>Human resource accounting</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Value added per employee</td>
</tr>
<tr>
<td>Customers</td>
<td>Distribution of revenues on markets and products</td>
<td>Number of customers per employee</td>
<td>Customer satisfaction</td>
</tr>
<tr>
<td></td>
<td>Marketing expenses</td>
<td>Marketing expenses per £ revenue</td>
<td>Customer loyalty</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Administration expenses per £ marketing expense</td>
<td>Share customers with long relations</td>
</tr>
<tr>
<td>Technology</td>
<td>IT investments</td>
<td>PCs per employee</td>
<td>IT qualifications</td>
</tr>
<tr>
<td></td>
<td>Share of internal to external IT customers</td>
<td>Computer expenses per employee</td>
<td>IT licence</td>
</tr>
<tr>
<td>Processes</td>
<td>Expenses per process on processes</td>
<td>Throughput time</td>
<td>Errors</td>
</tr>
<tr>
<td></td>
<td>Distribution of staff on processes</td>
<td>Product development time</td>
<td>Waiting time</td>
</tr>
<tr>
<td></td>
<td>Investments in R &amp; D and infrastructure</td>
<td>Time to organizationally and administratively fit new organizational units</td>
<td>Quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Company reputation</td>
</tr>
</tbody>
</table>

(Source: Mouritsen, 1998, p. 476)
Table 12: Interview Guide 1

Interview Guide 1

Preliminary Questions: Chief Financial Officer

Date: April 30th, 2007

1. Do you have any type of budgeting in your company? If yes, how do you use the budget?
2. How do you make planning in Litium? More specifically, how do you allocate resources to different projects or departments?
3. How do you evaluate employees’ performance? What type of targets or standards do you base on?
4. What kind of reports do you prepare in Litium? How do you use these reports? Do you make decisions based on these reports? Do you measure performance based on them?

First Interview: Chief Financial Officer

Date: May 7th, 2007

Budgeting:

1. Please describe the budgeting process in Litium.
2. What type of budgets you prepare (incremental budgets, priority based budgets, zero-based budgets, activity-based budgets)?
3. What are the advantages and disadvantages of budgeting in the sense of planning?
4. Please describe the process of bottom-up and top-down budgets.
5. Who are responsible for setting goals and targets (sales targets, revenues, number of customers)?
6. Do you have rolling budgets or not?

Budgetary control:

1. How do top managers use budgets?
2. What are the advantages and disadvantages of budgetary control for Litium?
3. Please describe the process of adjusted budgets (flexible budgets)?
4. Do you have variance analysis to compare between predefined budgets and actual performance?

Performance measurement:

1. Could you please describe key performance indicators (KPI) and ratio analysis (profitability, liquidity, activity/efficiency, managing debtors/creditors, and shareholder return) that are used in your company? (belaggningsgrad and debiteringsgrad, accounts receivable (% outstanding), operating margin, etc.)
2. What kind of financial and non-financial targets that you use to measure performance?
3. What is good performance and bad performance in term of company and departments?

Accounting tasks and techniques:

1. Please describe the main activities in accounting and finance functions.
2. Do the accounting department involve in mergers and acquisition activities? How do you participate in those activities?
3. Do you any accounting activities relating to R&D project control?
4. Do you have a plan to publish the company in stock markets?

Second Interview: Chief Financial Officer

Date: May 14th, 2007

Goals:

1. What is Litium’s long term goal nowadays?
2. In your opinion, what is high profitability. Is high profit always a target that Litium wants to achieve?
3. Do you have any profitability analysis? And is profit used as a standard to measure performance in your company?

Cost allocation:

1. Does Litium classify costs as direct and indirect cost? and how?
2. What is the element of overhead cost?
3. Please describe the process of overhead cost allocation to each business unit.
4. Does Litium compare between budgeted full cost and actual full cost?
5. Does the company classify overhead cost as controllable and non-controllable overhead for each business unit?
6. What are advantages and disadvantages of cost calculations especially cost budgets?
7. Do you think cost allocation method in Litium is good enough and why? Does Litium need to develop anything in term of cost allocation?
8. Do you think that Litium needs to apply modern cost accounting systems such as ABC costing, target costing, etc.?

Budgeting:

1. Do you think that the budgeting process in Litium needs to develop more? If yes, how it should be developed?
2. Do you think that budgeting can help facilitate entrepreneurship in Litium and in which way it can help to enhance entrepreneurship in your company?
3. Under the context of high uncertainty, do you think that budgeting is less useful?. Have you ever failed to meet the target in budget? If yes why did you fail?
Performance measurement:

1. Do you think using current key performance indicators are good enough to evaluate performance in Litium? And why?
2. As an entrepreneurial firm, how do you measure the value of innovation and entrepreneurial activities?
3. Do you think Litium need to develop performance measurement approach in the near future and how?
4. Do you think that Litium should apply modern performance measurement systems such as Balanced Scorecard, IC, and EVA in the near future?

Growth:

1. Please describe the current situation of growth in Litium (in term of sales, customers, employees)?
2. What are challenges of growing too fast?
3. How do you manage growth?
4. From management accounting perspective, how can management accounting tools help to manage current growth situation?

The development of management accounting:

1. When did you begin to apply management accounting tools?
2. What were the first management accounting tools did you adopt? And why did you choose them?
3. What are the major developments in management accounting do you think Litium should have in the near future?

Accounting reports:

1. Can you please provide financial statements of each business unit and the company for the last three years?

Thank you very much for your help!
Interview Questions: Business Unit Managers

Date: May 10th, 2007

Thank you very much for taking part in the following interview questions!

We are two students in the Master of Entrepreneurial Management program at Jönköping International Business School and presently we are writing our master thesis in the subject of management accounting and entrepreneurship with the supervision from Assistant Professor Emilia Florin Samuelsson.

The aim of this study is to investigate how an entrepreneurial company like Litium can be controlled with the help from management accounting, more specifically how management accounting can be used to facilitate entrepreneurship within the organization. According to earlier interviews with Kristina Laurelii, we know that as a business unit manager, you participate in management accounting activities such as budgeting and performance measurement. We therefore would like to conduct an interview with you to acquire more information regarding your participation in such activities so that we can better understand and thoroughly analyze the practice of management accounting and entrepreneurship in Litium. However, we are not able to make direct interviews with you due to long distance between Jönköping and Stockholm. So we would be very grateful if you can arrange time and write your answers under each interview questions and send them back to us through email. As a key informant for our research, your participation is very important for the success of this thesis. In addition, we also guarantee that all information provided will be kept secret and used only for this research.

The interview questions can be divided into four sections. The first part aims at personal information of interviewees. The second focuses on budgeting process whereas the third targets at performance measurement. The last section covers information related to entrepreneurship.

We are very grateful for your time and cooperation and, if you would like, we will of course send you a copy of finished thesis by email.

Kind regards,

Nguyen Thi Ngoc Lan                          Nanmanas Kanjanapalakun
Section 1: General Questions

1. Name:
2. Position within the company:
3. Business Unit:
4. Years working with Litium:

Section 2: Budgeting

1. How do you involve in budgeting process?
2. What type of targets do you set in the budgets?
3. How do you set those targets? And which information do you base on to set those targets? (For example, information from market, previous performance...)
4. Do you review the targets you already set; how and when do you review these targets?
5. What are advantages and disadvantages of budgeting in your company?
6. Do you think that the targets in the budgets encourage or hinder employees’ entrepreneurial spirit such as creativity and innovation? And why?
7. When involving in budgeting process, do you feel to have more commitment to meet the targets? And why?
8. What major developments or changes do you think the company should implement in budgeting process?

Section 3: Performance Measurement

1. What type of key performance indicators do you use to measure performance of employees in your department?
2. In your opinion, what is good and bad performance?
3. Do you think that the current indicators are good enough to evaluate employees’ performance and why?
4. Do you measure performance related to product development and innovation? If yes, how you measure this kind of performance?
5. Do you give rewards based on the results of performance measurement and what kind of rewards do you give to employees?
6. Do you think that current performance measures need to develop or change and why?

Section 4: Entrepreneurship

1. Please describe the culture in your company? (e.g. what elements are dominating: innovativeness and flexibility versus control, individualism versus collectivism, etc.)
2. Please describe the organizational structure in your company? (e.g. decentralization or centralization)
3. Do you encourage team work spirit in your department?
4. Do you give freedom and autonomy to the employees?
5. How often do you invest in new products, new processes, or new markets?
6. How do you deal with a rapidly changing environment in IT industry?

THANK YOU VERY MUCH FOR YOUR PARTICIPATION!