Management accounting change in a Chinese state-owned enterprise: an institutional perspective

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Abstract

Purpose

The paper provides an insight into a management accounting change, namely the introduction of the balanced scorecard (BSC) in a Chinese state-owned enterprise. The process of institutionalisation is evaluated using the theoretical framework proposed by Burns & Scapens (2000), which breaks the process down into the steps of encoding, enacting, reproduction and finally institutionalisation.

Approach

A qualitative field study was carried out, gathering data from interviews, documents and non-participant observation.

Findings

It was found that resistance to change in the factories of the company resulted in the rules of the BSC being only loosely coupled with routines embedded in everyday working activities. Institutionalisation of the BSC has not been very successful in the factories, primarily because of the lack of fit between new rules and everyday operations, and because previous institutions have prevailed. In contrast, behaviours at Headquarters were more tightly coupled with the rules of the revised accounting practices, enabling the BSC to be more easily institutionalised. However, even at Headquarters the BSC was adapted and has evolved throughout the institutionalisation process.

Originality

This study makes a contribution to the institutional theory literature by showing that, despite its western roots, institutional theory may be used to explain attempts to change management accounting in other hemispheres, as in this Chinese case. The research also contributes to the sparse research on management accounting in China.

Introduction

Institutional theory has become prominent since the 1990s in examining management accounting practices and explaining how and why these remain the same or change (Ezzamel et al., 1993; Lukka, 2007; Modell, 2003; Siti-Nabiha & Scapens, 2005). Over the same period, interest in management accounting practices in emerging nations in Asia, such as China, Malaysia and India, has grown among researchers writing in the English language academic media (Firth, 1996; Nor-Aziah & Scapens, 2007; Tang et al., 2006). However, studies in emerging nations using an institutional theory perspective are rare, and those that exist emphasise influences of external environmental factors, such as cultural, economic or political issues, rather than the process of management accounting change in its intra-organisational context (Burns & Scapens, 2000).

In this research, a qualitative field study is undertaken of a change in management accounting practices, namely the application of a balanced scorecard (BSC) (Kaplan & Norton, 1992) in Tsingtao Brewery, the oldest and largest beer producer in China. By the time that data were collected for this study, the BSC had been used in the company for five years. Having collected data and begun to interpret them, the authors chose institutional theory as a means of facilitating the interpretation, and conversely of using the data to extend the theory.

During the period of research, a few issues were observed. Firstly, there was diversity in the usage of the BSC at Headquarters and in factories. Secondly, although the BSC was claimed to be implemented successfully in the company, how it was being used differed from the original design and from what was expected by the company. Thirdly, there were plans for further changes to the BSC usage. From these findings, questions arose as to how the BSC

had changed or evolved in the company, why there was diversity in the usage of the BSC in different areas in the organisation, and how the BSC has influenced the company as a whole. The framework of Burns & Scapens (2000) is used to review and analyse the findings of this study, in particular, how rules and routines are involved in the process of management accounting change in the organisation.

The paper is structured as follows. In the next section, literature related to the critical concepts is discussed. Then the research method is described. In the subsequent section, the findings and some analysis are provided, focused on a comparison of the BSC usage between Headquarters and the factories. The findings are interpreted and theorised in the discussion section. Conclusions and ideas for further research are provided in the last section.

Literature Review

This section starts with a critical review of the literature on the BSC. Then some literature on management accounting change is reviewed, particularly from the perspective of institutional theory. Lastly, the literature on management accounting practices in China is briefly reviewed.

The Balanced Scorecard

Kaplan & Norton (1992) first presented the BSC as an innovative management tool to measure organisational performance from various perspectives, including: financial, customer, internal business, and learning and growth perspectives. They also claimed that there are cause and effect relationships among the four perspectives (Kaplan & Norton, 1992, 1996), which are able to overcome historical problems of a traditional accounting systems based solely on financial measures at a point in time (Kaplan & Norton, 1996).

However, there are criticisms of the BSC as a performance measurement tool. Nørreklit (2000) argued that the basic assumption of cause and effect in the BSC is overly simplified and misleading. There are also timing difficulties because a cause and effect relationship requires a time lag between the cause and the effect, which is not included in the BSC. Another problem of the BSC argued by some scholars is its exclusion of many important

stakeholders and perspectives that could influence the success or failure of the organisation, such as suppliers, employees, the environment, community issues, and so on (Bourne, 2002; Brignall, 2002; Marr & Adams, 2004). However, Kaplan & Norton (1996) counter-argued that the employee is a critical part of the learning and growth perspective and the supplier is part of the internal process perspective. Also adoption of the BSC should be flexible and adapting it to different situational influences could include adding perspectives (Kaplan & Norton, 2001; Butler et al., 1997; Debusk et al., 2003).

Although the BSC began primarily as a performance measurement tool, Kaplan & Norton (1996, 2001) developed it so it could be utilised as a strategic planning and implementation system, translating long-term strategy into short-term objectives, goals and measures for each perspective. The utilisation of the BSC as a strategic implementation tool has been documented in a variety of organisations, such as the public sector (Greatbanks & Tapp, 2007), healthcare organisations (Inamdar & Kaplan, 2002), and local government (Kloot & Martin, 2000).

However, the use of the BSC as a tool for strategic management has also received some criticism. Nørreklit (2000) concluded that the BSC cannot serve as a strategic implementation tool very well, as it is hierarchical and top-down, whereas, in order to be effective, it needs to be incorporated and understood by both management and employees (Nørreklit, 2000; Olve et al., 1997). Because of the top-down pattern, employees at lower levels of the organisation are not acting on their own, they are merely reacting to the strategies made by the top management. Therefore, it can cause an inconsistency between the planned strategy and the strategy expressed in action. Effective communication from employees to management could be the solution to this problem, facilitating interactions rather than reactions (Nørreklit, 2000).

Communication difficulties and low middle management skill levels are "practical" problems regarding implementing of strategy (Alexander, 1985; Beer & Eisenstat, 2000; Umashev & Willett, 2008). Kaplan & Norton (2001) claimed that the BSC can help to describe, communicate, and educate staff about the strategy in a continual and holistic way. Huang & Hu (2007) showed that both horizontal communication for department level

alignment and top-down communication alignment were achieved by implementing the BSC. Atkinson (2006) also claimed that the BSC can identify communication issues while the strategy is being implemented in an organisation. As well as the BSC enhancing and enabling communication, communication could also be an important factor in determining the effectiveness of implementation of the BSC.

The BSC attributes of performance measurement, strategy implementation and communication are evaluated in this research. The findings are explained and analysed using theoretical concepts that are described next.

Management Accounting Change

Management accounting change has been a popular topic of research since Johnson & Kaplan (1987) claimed that the fundamental nature of management accounting had changed little between the 1920s and the 1960s. Other scholars reached the opposite opinion, claiming that there have been changes in the environmental conditions (e.g. information systems, competitive markets, organisational structures) in which management accounting is embedded, which have led to change in management accounting (Ezzamel et al., 1993).

Other literature on management accounting change focuses on why and how management accounting has changed. Some research has examined factors that influence management accounting change, either as forces or barriers (Kasurinen, 2002; Schwarze et al., 2007). However, Quattrone & Hopper (2001) argued that these factors can only explain certain changes that occur in organisations: they are unable to explain the nature of management accounting change, as there is a lack of relevance between these factors. Burns & Scapens (2000), criticising previous literature for concentrating on the outcome of management accounting change, used institutional theory to develop a framework to explain and analyse the *process* of management accounting change.

Burns & Scapens (2000) used a form of institutional theory called Old Institutional Economics to explore management accounting change, emphasising the importance of rules and routines in management accounting practices. Burns & Scapens (2000) defined rules as

how things should be done, and routines as what is actually done in practice. Institutions, that is, the taken-for-granted ways of thinking in the organisation, and the actions that people actually do in day-to-day operations are related socially by the rules and routines. Burns & Scapens' (2000) framework lists four steps in the process of institutionalisation, namely, encoding, enacting, reproduction and institutionalisation. When a new management accounting tool or practice is introduced to an organisation (encoded), the new practices are influenced and shaped by the existing institutions in the organisation, which are reflected in the day-to-day activities of individuals or groups and the new practices may also influence the day-to-day activities (enacting). The repeated day-to-day activities may lead to modification or development of new routines and rules. The last step represents a new institution, formulated by rules and routines being reproduced through the behaviours of individual actors.

In addition, Burns & Scapens (2000) listed three types of resistance that may be identified in the process of management accounting change: formal resistance caused by conflicts of interest; resistance because of an inability to use the new tool; and resistance due to a "mental allegiance" to old practices. Furthermore, they identified three dichotomies namely, formal versus informal change; revolutionary versus evolutionary change; and regressive and progressive change. The first dichotomy is useful to explain the findings of this study. Formal change is usually introduced by a powerful group in a ceremonial manner; informal change occurs at a tacit level, as repeated actions become day-to-day operational routines.

The concept of loose coupling, originating in the literature on organisational decision making (Weick, 1976) and refined by Orton & Weick (1990), has been applied to institutional contexts where rules and routines are not completely institutionalised. Loose coupling and decoupling occur when there are deviations between planned or imposed rules and actual practices within organisations (Seo & Creed, 2002; Nor-Aziah & Scapens 2007; Lukka, 2007).

Management Accounting Change in China

Recently scholars researching management accounting change have moved their attention to some emerging nations in Asia, such as India (Anderson & Lanen, 1999) and Malaysia (Nor-Aziah & Scapens, 2007). A few studies have discussed management accounting practices or innovations in China which have resulted from the rapid development of the Chinese economy. Tang et al. (2006), examining the usage of modern management control systems by four big Chinese SOEs, found that factors likely to motivate the decision to adopt new management control tools include environmental uncertainty and the ineffectiveness of existing management control. Their evidence indicated that the companies used more than one tool at the same time, such as the BSC with budgeting systems, and they showed that although all four SOEs had adopted BSCs, it was only used in the very beginning stages, basically for evaluating the strategies. Firth (1996) studied the transition from central economic planning to company privatisation in China, showing that there were more changes made in companies that had foreign partners compared with those companies solely owned by Chinese. Firth (1996) used the theoretical framework of institutional isomorphism to describe the diffusion of management accounting innovations in the Chinese companies he analysed. Liu et al. (2010) also used isomorphism to explain the driving mechanisms that influence environmental management in China, revealing a positive relation between the external mimetic force and environmental management levels. They indicated that environmental issues are often taken as an opportunity to improve the company's image. In addition, public issues like neighbourhood communities and media can also drive the firm to improve their environmental management as normative power for further development of the firm. In contrast, a survey of management accounting practices by Sulaiman et al. (2004) in four Asian countries (Singapore, India, Malaysia and China) showed that there is a lack of use of management accounting innovations such as activity based costing and total quality management, as the traditional management approach (budgeting) still occupies the leading position.

Although there is increasing attention to management accounting change in Asia, research explaining why and how management accounting changes is scarce. Furthermore, the focus of previous studies is usually on specific cultural, economic or political circumstances; they rarely study the intra-organisational context. In addition, the literature shows that the BSC is popular in these countries: many companies in China, especially large companies, have used the BSC and the Chinese government has encouraged companies to learn and absorb advanced management tools and thought from western countries. However, although many large companies have spent large amounts of money and time on the BSC, its performance has not achieved their expectations. Indeed, the Assistant Director of the Strategic Department of Tsingtao Brewery told the interviewer that during a recent telephone conversation between him and an expert from E-gate (the BSC consultant company used by Tsingtao Brewery), the expert was very surprised that Tsingtao Brewery was still using the BSC, because many of their customers had given up a long time ago.

Thus, drawing on the literature discussed in this section, this study focuses on management accounting change processes in the context of internal environmental change in a Chinese SOE. In particular it addresses why management accounting change took place in the SOE and how and why the processes of management accounting change differed between various departments or divisions of the SOE.

Research Method

A qualitative field study was judged to be the most appropriate method for this study as the researchers hold interpretive views on epistemology, ontology and human nature (Burrell & Morgan, 1979) and believe that qualitative methods are the best way to explore the social world. Also, the extended research time in the organisation enabled a holistic, in-depth investigation of the day-to-day running of the organisation (Bryman & Bell, 2007). Tsingtao Brewery Co. Ltd was chosen as the research site.

The research was conducted between November 2009 and February 2010. Initial access was organised through a family contact of the researcher, the first-named author. At the first

meeting at the Headquarters of Tsingtao Brewery, the researcher was introduced to the Assistant Director of the Strategic Investment Department. He provided a general introduction to the BSC implementation in the company, and helped the researcher to gain access to three factories of the company, known as No. 1 Factory, No. 2 Factory and No. 4 Factory. The researcher used three sources of evidence to collect data, namely interviewing, document analysis and non-participant observation.

Interviews were semi-structured, with some fixed questions that were asked of every interviewee, but allowing for impromptu questions to follow up matters mentioned by the interviewees (Bryman & Bell, 2007). The questions focused on the current usage of the BSC in the company, and the different ways that the BSC has evolved in the company, including the implementation rules and activities related to the BSC day-to-day practices.

Eleven people were formally interviewed, two of them twice. Interviews lasted from 20 to 75 minutes, taking on average about 40 minutes. In addition, the researcher had informal conversation with other people. The interviewees were from a variety of positions and levels in the organisation, from directors and managers to factory employees. The researcher visited Headquarters and three factories, carrying out interviews in several departments. Two interviews were recorded by taking notes, as interviewees declined to be recorded; the rest of the interviews were audio-recorded. All interviews were transcribed in Chinese by the researcher.

Over 60 related documents were analysed and evaluated, including personal documents (e.g. examples of the BSC, training materials, CEO conference minutes), official documents (e.g. newsletters, policy documents, training materials, advertising, and internal newspapers), and mass media (e.g. newspaper articles). The document analysis focused on various templates that the company used at different stages, documents supporting the routines of the BSC implementation, and formal training material that was produced to promote the BSC.

The researcher spent one and a half days in No. 2 Factory. During that time, the researcher not only visited five major departments, interviewing one employee from each department, but was also taken on a tour to have a close look at the beer production line. In

the rest of the time, an office with a window along one wall was given to the researcher in the Human Resource (HR) Department. The researcher was allowed to go around the department and observe the ordinary working activities of staff. Photos of the production line, staff's working life, and some newsletters on the wall were taken as part of the data resource.

Limitations

There are a few possible limitations of this research. Firstly, there were data access limitations. The researcher was only allowed to talk to certain people, to access certain areas in the company and to view certain documents (McKinnon, 1989). The researcher only had limited time to spend in the company, and therefore did not have a chance to observe what happened before she arrived and after she left (McKinnon, 1989), although interviewees were able to recall events before the research period, and documents from earlier periods were viewed. As the rules and policies of SOEs are stricter than those of any other type of organisation in China, there were some difficulties for the researcher in accessing certain documents, events or people. Although the researcher sought an extensive view of the use of the BSC in the case company, from different levels and different positions within the organisation, she only had access to people at department level and below. She did not have an opportunity to talk to the people at the top management level. In addition, as the HR department led the implementation of the BSC at factory level, these departments were always the first access point for the researcher to get into factories. Most of the employees believe that the staff from HR Departments are more familiar with the BSC than other departments.

To overcome these limitations, method and data triangulation were employed to improve reliability and validity (McKinnon, 1989). As different methods of data collection were used, some information would otherwise have been restricted was able to be gained from other sources (McKinnon, 1989). Interviews were supplemented by documents given by internal employees and secondary data collected from the media, which included opinions purportedly expressed by the top management team. Moreover, the researcher handled the information

sensitively to make sure the people from the organisation felt free to talk with her (McKinnon, 1989).

Secondly, there may have been some interpretative bias in the process of translation between Chinese and English. All interviews were conducted in Chinese and transcribed by the researcher herself, Chinese being her first language. However, because she had previously learned about the BSC in English and in settings outside China, she may have translated some words and ideas used during the interviews incorrectly. Indeed, at the beginning of the research, the researcher found it hard to translate some of her knowledge of the BSC into Chinese. In addition, some misinterpretations may have occurred when the researcher translated some words from Chinese into English for the findings section of this paper, as one English word may have several Chinese words to describe it and vice versa. In the interests of length, only translations of quotations from interviewees are given, but the original Chinese statements are available on request.

Thirdly, Patton (2001) claimed that the credibility of qualitative research largely depends on the ability and effort of the researcher, rather than on a research instrument, as in quantitative research. The lack of experience in observing and interviewing may have influenced the accuracy and completeness of the findings. There is also the problem of observer bias, where the researcher, because of prior preconceptions, may only perceive what she expects to see (McKinnon, 1989). The potential solution to observer bias is to spend a substantial length of time at the research site. Although there were some restrictions on the amount of time available for this research, the researcher tried her best to be well organised during this period of time, and spent as much time as possible at the research site. The researcher was also well prepared, trying to gain as much information as possible and develop interviewing and observation skills before getting into the organisation.

Findings

About Tsingtao Brewery

Tsingtao Brewery Co. Ltd was established in 1903 by German and British merchants under the name Nordic Brewery Co., Ltd – Tsingtao Branch. The brewery is China's most famous and largest beer producer. In 2009, the total sales volume of Tsingtao Brewery was 5.91 million kiloliters globally, with a yearly growth rate of about 9.9%. Net profit reached 1.253 billion Yuan, an increase of 79.2% on 2008 profits. Tsingtao Beer is exported to 62 countries and regions all over the world (Tsingtao, 2009).

Tsingtao Brewery is a SOE. The rapid growth of the Chinese economy can be largely attributed to the reform process of Chinese SOEs since the middle of the 1980s (Ralston et al., 2006), which has entailed many SOEs converting into shareholding companies and listing on both domestic and foreign stock exchange markets (Ralston et al., 2006). In order to improve their efficiency and profitability, SOEs have put much effort into changing their internal culture to adapt to the current complex external environment. The Chinese government also promotes SOEs' learning from western advanced management innovations and adopting associated tools to improve their performance. Thus, some SOEs have adopted or are implementing recently developed management accounting tools, such as the BSC, as has happened with Tsingtao Brewery.

The reform of Tsingtao Brewery started in 1992, when the No. 1 Factory, which is the predecessor of Tsingtao Brewery, merged with No. 2 and No. 4 factories, and Tsingtao Brewery was established as a limited liability company. In 1993, the H shares of Tsingtao Brewery was issued in the Hong Kong stock market, it being the first company from mainland China to be listed on the Hong Kong stock market. In the same year, the A shares were issued in the Shanghai Stock Exchange market. Thus, the Tsingtao Brewery successfully transformed from a wholly owned SOE to a limited company.

In January 2009, the second largest shareholder• AB InBev, sold 19.99% of its shares to Asahi Ltd., making Asahi Ltd. the second largest shareholder. Although the government was

still the largest shareholder at 30.89%, the Asahi purchase caused widespread discussion within China. There were rumours that Asahi would like to take over the company through further stock acquisition, which would mean that Tsingtao Brewery would no longer be an SOE but become a foreign investment company. After a few months of negotiation, Tsingtao Brewery signed a "Strategic Cooperation Agreement" with Asahi Ltd promising there would be no further purchases of shares (Geng, 2009). Then, AB InBev sold its remaining 7.01% share of Tsingtao Brewery to an entrepreneur who is a personal friend of the president of Tsingtao Brewery; rumours were that this action was also to prevent further acquisition by Asahi Ltd.

Tsingtao Brewery went through a major change in structure in 2007. Previously, the company was organised in a district management pattern, with eight regional marketing companies which had authority to control the factories or companies in their area. In 2007, the company was restructured into three centres, namely the Investment Centre, the Manufacturing Centre and the Marketing Centre. The Investment Centre comprises nine functional departments; it is normally known as the Headquarters of the company. The Manufacturing Centre directly controls all factories. The Marketing Centre directly controls all sales companies.

The adoption of the BSC

Tsingtao Brewery encountered a serious financial crisis in the 1990s due to increasing number of competitors in the industry. Also, under the impetus of the Chinese SOEs reform, Tsingtao Brewery took over about 47 small and medium-size companies in the period from 1992 to 2007. However, this rapid expansion brought with it many problems, such as cultural conflicts, multiple brands, and low profitability (Liu, 2006). In 2001, Jin Zhiguo became the new general manager and he changed the business strategy of Tsingtao Brewery from "growing large to become powerful" to "growing powerful to become large" (Tsingtao, 2009). He felt that a performance management tool was needed which could help the brewery to transform strategy into action and focus on the necessary post-acquisition integration. The

BSC came to his notice; he thought the BSC could be an effective tool to solve the problems and improve performance. After a period of research and preparation, the top management team of Tsingtao Brewery decided to adopt and implement the BSC to help the company to achieve its new strategy. In 2004, E-gate, which is a professional Balanced Scorecard and strategy executive consultant company in China, was hired to help Tsingtao Brewery design, develop and implement the BSC.

Initial training and blueprint of the BSC

The implementation of the BSC in Tsingtao Brewery received a lot of attention from top management:

> President Sun and Vice President Huang are the sponsors of the BSC implementation. President Sun has always focused on the continuous development and usage of the BSC in recent years. The BSC would have been given up, without his continued effort. (Assistant Director of Strategic Investment Department at Headquarters)

Training on the BSC was conducted at different levels of the company. The staff from the Strategic Investment Department were the first to study the BSC and to join the training programme conducted by E-gate Consultant Company. Then a group of E-gate experts gave professional training to different levels of staff at Headquarters, including the top management team, directors of all functional departments and the BSC Administrator from each department. In addition, the CEO and the top management team of Tsingtao Brewery studied the books by Kaplan & Norton to obtain a better understanding of the BSC. Then, training was given by E-gate to a few factories and sales companies which were selected for experimental implementation of the BSC. No. 2 Factory was one of those factories.

> The training was conducted throughout the organisational hierarchy: training of top management was first, and then the training of employees within the organisation. … The training was carried out from two aspects: the principles and the technical issues. (Senior Staff of HR Department in No. 2 Factory)

Apart from professional training given by E-gate experts, other ways were used to promote the BSC to general employees of No 2. Factory.

> Training, conferences, media, individual communication, team discussions, internal newspapers, bulletin boards, external experts' lectures – we have utilised all the resources we can think of to promote it – opened a special column on the Internet, engaged in assessment activities (Senior Staff of HR Department in No. 2 Factory).

Despite this claim, some employees stated that their knowledge of the BSC was normally gained just from the introduction given by the Departmental Directors. The BSC Administrator of each department seemed to be much more familiar with the BSC than lower level staff.

Officially there were nine stages of the BSC development in Tsingtao Brewery, as shown in Figure 1. The company developed its first strategy map and the BSC in December 2004. The full trial run of the BSC was in the period from April to July 2005. The vertical spread of the BSC to personal level started at the beginning of 2006.

[insert Fig. 1 about here]

Analysis

There appear to be a few reasons why the BSC was adopted and implemented by Tsingtao Brewery. Firstly, with the reform of Chinese SOEs, there were mimetic pressures (DiMaggio & Powell, 1983) to use advanced western management tools to face the increasing challenges from competitors. Secondly, due to the expansion of the company and its new strategy, it was claimed to be necessary to have a tool to help the company. Thirdly, the full support from the top management team and the assistance of an external consultant company enabled application of the BSC.

The rest of this section focuses on how this management accounting change has evolved at Headquarters and in the factories of the company. Although it was the intention of top management for the BSC to be implemented throughout Tsingtao Brewery, variations in the usage of and future plans for the BSC were identified.

Overall BSC Usage

Headquarters

The Headquarters of Tsingtao Brewery comprises several departments. Each department has a BSC and so does every staff position in each departments. However, not every department pays the same amount of attention to the BSC. Some departments use the BSC as a tool to help in their ordinary work, and once the BSC is drawn up, they regularly review it. However, a few departments only use it to comply with the requirements laid down by the top management.

The Knowledge Management Manager of the Management Department suggested that the diversity of the BSC usage at department level may be caused by the different nature of the work of each department. For example, the ordinary work of staff in the Purchasing Department is relatively simple, so just a few measures are sufficient. However, the pattern of the BSC has many measures. Although some of these measures seem unnecessary for this department, they have to be translated from strategy to the personal level. This makes the implementation of the BSC more complicated and inconvenient in this particular department. Therefore, staff in the Purchasing Department tend to ignore the BSC and just do their routine work.

Factories

Tsingtao Brewery has about 50 factories all over the country. The BSC is being used in approximately one-third of these factories, and each is using it differently. Some just use it at management level; some have developed it at the personal level. Some may. Some have developed the BSC for production lines; some have not developed it at all. The three factories visited by the researcher have different levels of usage of the BSC. In No. 4 Factory, it has been developed down to the personal level. In No. 2 Factory, the BSC has been used at the personal level only in the HR Department. However, other departments in the No. 2 Factory were struggling over whether they should continue to develop it at the lower levels. The No. 1 Factory did not have a BSC system at the time of the research. The new HR Director of No. 1

Factory had just been transferred from No. 2 Factory in order to establish a performance management system based on the BSC in the future.

Analysis

Although the company was supposed to have implemented the BSC in almost every unit of the company by Stage Six in 2006 (see Fig. 1), the reality differed from this expectation. The usage of the BSC at departmental level at Headquarters differed between departments. The BSC was only being used in approximately one-third of the factories, with some of them struggling over the necessity to further develop it. None of the sales companies was using the BSC. These differences indicate the existence of various levels of resistance to change.

Burns & Scapens (2000) argued that a conflict of interest can lead to formal or implicit resistance to change. The differences in usage between departments at Headquarters is probably because the assumptions held by each department are different. Some of these assumptions may even be in conflict with each other. For example, the responsibilities of the Purchasing Department are very simple compared to the complexity of the Management and HR Departments. Hence the BSC, which involves measures from four different perspectives, seems more suitable for the latter departments, whereas the Purchasing Department's responsibilities can be covered by just a few.

Another type of resistance is a result of the inability of the employees in the company to apply a new system (Burns & Scapens, 2000). Although the preparation for the BSC implementation was comprehensive and different kinds of training were conducted from top to bottom through the organisational hierarchy and at both Headquarters and factory level, factory employees claimed there was a lack of professional training for them on the implementation of the BSC. Only a limited introduction of the BSC was presented to the employees by department directors. Thus, there was a problem with staff being able to use the BSC at the personal level in the HR Department in No. 2 Factory, and other departments were struggling to justify the necessity of further developing it at the personal level. Therefore, the

lack of ability to apply the new system is an obstacle to the implementation of the BSC at the personal level.

The third type of resistance is the mental allegiance to the established ways of thinking and acting, embedded in the existing routines and institutions (Burns & Scapens, 2000). No. 1 Factory lacked formalised performance measurement systems by 2009, despite the BSC supposedly being implemented at factory level in 2006. The new Director of the HR Department claimed that the BSC used to be formulated in the factory, but there were no follow up procedures to control and review it. Therefore, the employees did not pay much attention to it. Instead, the unique culture and existing institutions of No. 1 Factory prevailed. As No. 1 Factory is the oldest factory of Tsingtao Brewery, with over 100 years of history, their ways of doing things are institutionalised and therefore hard to change. The shared values and habits mean that employees are more likely to stick to what they are familiar with. Therefore, there is a high level of resistance to change in No. 1 Factory because of their allegiance to "how things are done" in the factory.

This case shows that change is hard to achieve, which is supported by findings in previous literature on management accounting change (Malmi, 1997; Burns & Scapens, 2000). The resistance to the BSC in the factories appears to be higher than at Headquarters, although only some departments at Headquarters had fully adopted the BSC.

Templates, Measures and Performance Measurement

Headquarters

Many changes have been made to the original BSC template designed by E-gate, the external consultant company, as it has been used year by year at Headquarters. The original template not only included the figures for each measure and initiative, but also required some supplementary forms. For example, the "Departmental BSC Requirements Form" asks each department to describe five critical jobs in sequence of importance. Although this form was listed on the rules of the BSC implementation, it has not been routinely used. The Knowledge Management Manager of the Management Department explained that people always forget to

hand it in, and it does not seem that necessary. He also said that the template which is being utilised now at Headquarters is simpler than before: "it is just a simple table".

Each departmental BSC is normally made up of three kinds of measures: measures that come directly from the company BSC; measures translated from the measures on the company BSC; and measures added by departmental staff based on the routine work of the department. Priority measures, indicated by solid stars, are assessed by the Performance Assessment Committee, comprising one person each from the Management, Strategic Investment and HR Departments. Secondary measures, marked by blank stars, are the focus of departments. The departmental BSC is reviewed monthly at departmental level and assessed quarterly at company level. Personal BSCs, derived from the departmental BSCs, also comprise three kinds of measure: measures from the departmental BSC; measures translated from the departmental measures; and measures added by personnel based on their daily work. The measures on the personal BSC are also distinguished in terms of their importance. Those with solid stars are assessed by the department director during the monthly meeting of the department. Measures marked by blank stars are reviewed by the department director.

The measures on all BSCs are divided into the four perspectives promoted by Kaplan & Norton (1992): financial, customer, internal business, and learning and growth. However some departments at Headquarters lack financial measures.

> This is due to the job attributes of certain departments, which have no direct contribution to profit, but whose actions definitely underpin the financial performance of the company as a whole. (Assistant Director of Strategic Investment Department)

In addition, some departments have nothing to do directly with external customers. In these departments measures have been developed so that the internal client is considered as the customer. For example, the HR Department provides services to internal employees, so measures on the customer perspective relate to internal employees. There are also many problems in defining the measures on the learning and growth perspective. The Assistant Director of the Strategic Investment Department stated that to quantify the measures in the

learning and growth perspective was a big challenge for the company. The objectives normally included on the learning and growth perspective are about culture, human skills and knowledge, intangible resources that are really hard to quantify and find a measure for. Another external consultant company was hired to build the measures for them. Tsingtao Brewery has also spent a lot of time on improving the measures on the learning and growth perspective. For example, "reinforce training and retain skilled staff", a measure that shows on every departmental BSC, is hard to quantify. Therefore, an action plan was set up to show what has been done to make sure the measure is achieved by the due date.

The Performance Assessment Committee meets four times a year to assess the BSC results from all functional departments. However, not all measures on the BSC are assessed. Only measures that are included in the goal responsibility document are assessed, which are the ones marked in the departmental BSC by solid stars. Moreover, the committee pays a visit to each department to evaluate their performance. Sometimes departments may be required to provide some hard evidence (e.g., files, documents, receipts) to prove the targets have been achieved. At the end of the process, a meeting is held at company level to report the results and give feedback based on the BSC results.

For staff who have the best performance or the worst performance, managers of relevant departments will have a conversation with them. For the staff who have the best performance, the conversation will focus on their future promotion or bonuses. For the staff who have poor performance, the managers will help them to identify their problems and find possible solutions from them.

Factories

The templates used in factories are basically the same as those used at Headquarters, but they are more complicated. The factory templates generally comprise: a strategy map, an I-data form (containing departmental strategic initiatives), an M-data form (containing departmental measures), and review forms for all measures. Although the measures are also divided into four perspectives, most measures of the factory departmental BSCs focus on the

internal process perspective. Indeed, for some departments, the internal process perspective is further divided into several objectives, and contains measures that relate to the key work of the department. For example, the internal process perspective in the Production Department's BSC of No. 2 Factory is split into five parts: security management, production management, consumption management, general management, and environment and security management. In turn, each part is translated into a few measures. In contrast, there are only a few measures on the financial and customer perspectives in most factory level departmental BSCs. For the learning and growth perspective, the measures are basically the same for most departments in the factories, except the HR Department, whose main responsibilities are on the learning and growth perspective. In addition, all measures and strategic initiatives are on a detailed form, to enable actual figures and the current situation to be reviewed. If targets are not achieved or initiatives do not meet the standard, detailed analyses and solutions will be given to the related departments and staff. Some important measures are traced weekly, others monthly.

Performance assessment is conducted monthly at factory level and the form differs from that at Headquarters. Although the BSC is used as a performance management system in the factories, the performance assessment in the factories does not follow the BSC exactly. The performance is assessed based on different modules which are included in the factory BSC to represent the key objectives of work in the factory. A few departments act as implementation departments, being responsible for evaluation of specific modules. For example, the Quality Control Department directly assesses all the measures that are related to the quality as shown on all departmental BSCs in the factory. The HR Department is responsible for business management, the organisational culture, and performance assessment. Its staff gather the results from different departments and report to the director of the factory. The remaining measures are reviewed within departments. The previous performance management system, which was used before BSC implementation, contained different modules. Therefore, the performance assessment system which is currently being used in the factories is still largely dependent on the previous system.

Analysis

Resistance arose when the original BSC template was implemented at Headquarters. The concept of loose coupling can be used to explain this situation. Sharma & Lawrence (2008) asserted that conflict might arise between the institutional arrangements and technical standards and efficiency demands. Collier (2001) also claimed that loose coupling occurs when accounting accommodates both the institutional arrangement and technical demands. The forms required as supplements to the BSC obviously increase complexity and add extra work. Employees found it easy to forget these forms or just provide them with barely satisfactory contents. Sometimes employees only handed in the BSC table and ignored the forms that were also required by the rules, because they considered these forms unnecessary. The loosely coupling reduced at Headquarters when the directors adjusted the rules and simplified the BSC. Therefore, the template of the BSC has evolved from its initial complicated format to the simple table format. Lukka (2007) claimed that loosely coupled rules and routines can be viewed both as a problem and as a solution. The changes made to the BSC template at Headquarters can be recognised as a solution to the loose coupling issues. Thus, the system became more tightly coupled after the adaptation had been made to the BSC.

Out of the three kinds of measures on each BSC, it was claimed that the measures translated or derived from the company strategy are the primary ones, and that most attention should be paid to these measures at both departmental and personal level. It is inevitable that there is a loose coupling between measures and day-to-day activities, because the measures that are related to daily activities are only secondary measures on the BSC. On top of that, most of the daily work cannot be translated into measures easily, let alone be put in the BSC. The interviewees at Headquarters asserted that the BSC did not cover most of their ordinary work as their responsibilities are complex. Some jobs emerged during the year, and cannot be included in the BSC as it is established in advance. The lack of relevance of measures in the factories is caused by the lack of personal BSCs. Some departments which have used the BSC still lack resources to review and control it. The primary measures translated from strategy are

usually shared by different departments: each department or person is only responsible for and able to influence part of the results. Therefore there is loose coupling between measures and activities.

The ways of assessing performance are different between Headquarters and factories. The BSC was not the only means of measuring performance in the factories. The factories are still partly following the modular performance system used previously. Thus, loose coupling arises because the routines are still partly dependent on the historical systems. The new management accounting practices of the BSC are employed, but they are associated with past actions (Burns & Scapens, 2000; Lukka, 2007).

Strategy Implementation and Communication

Headquarters

The strategic planning period of Tsingtao Brewery is three years. During this period, adjustments of strategies are made each year according to internal and external environmental changes, but the main strategies remain unchanged. The procedures and communication processes for drawing up the annual BSC as it is currently being used at Headquarters are as follows. After the release of the company strategy in July each year, meetings are held by the CEO, Vice-CEO and top management team to draw up the strategy map and the company BSC. Once the strategy is agreed, all departments start to translate the company strategy into objectives and measures, and put these into their departmental BSCs. These objectives and measures are passed to staff by their department directors.

This translation process requires frequent communication and interaction among members within each department. In addition, communication between departments is necessary because some measures in the company BSC may be shared by two or more departments. When all departments finish the process of translation, a meeting is held by top management with the directors from each department to assess the feasibility of departmental measures. Then personal BSCs are formulated based on departmental BSCs. Thus, the strategy is translated into objectives, measures and actions in the organisation hierarchically.

The Assistant Director of the Strategic Investment Department claimed that the procedure of drawing up the annual BSC at all levels of headquarter is a formalised routine. In addition, he emphasized that the BSC works as a strategy communication tool which improves the communication at Headquarters: "it makes the staff in the company have a clearer understanding of company strategy". The Assistant Director of the HR Department also claimed that, since the implementation of the BSC, the way that staff view company strategy has expanded, and staff have refined their understanding of company strategy, no matter what their positions are.

According to the Knowledge Management Manager of the Management Department, the procedures for drawing up departmental and personal annual BSCs have changed since 2007. The top-down translating process has been changed to a bottom-up formulating process. According to him, this change enables the staff to take more time to consider the relationship between their day-to-day operations and their personal BSCs, before the release of departmental BSCs and company BSC. The personal BSCs are then integrated into the relative departmental BSCs. After the release of the company BSC, if there are any changes in the strategy, departments and staff have to adjust their BSCs based on the company BSC. If there are no changes in the company strategy for a particular year, the departmental BSCs can be derived from the personal BSCs. "It is more efficient to formulate the BSC in this way" (Knowledge Management Manager of Management Department).

Factory

The factories also follow a top-down strategy translation process. At the beginning of the year, each factory has to sign a "goal responsibility contract" with the company, which includes critical objectives on the company BSC. Once its contract is signed, the factory is obligated to achieve these objectives; failure is not acceptable. The factory strategy and BSC are established based on the goal responsibility contract. A Senior Staff member of the HR Department in No. 2 Factory commented that:

The strategies, objectives and measures of the departmental BSCs are decided by top and senior management teams of the factory. For example, the director of our department is responsible for refining important objectives and targets of the HR Department's BSC. The final decision will be made when he has achieved agreement with the top management team through discussion.

According to this interviewee, the departmental strategy maps are usually formulated by department directors with their superiors. This process is different from that at Headquarters, where staff set up personal BSCs before the release of departmental and company BSCs; where some of the measures included in personal BSCs become part of the departmental BSC, and where the content of the departmental BSC is the result of a communication process. In contrast, in the factories there is a lack of communication between management teams and lower level staff in the process of formulating the departmental BSCs, as evidenced by the following comments:

We are an operational department; we do not establish measures. (Employee of Production Department in No. 2 Factory)

The factory is an operational unit in the organisation. We should follow orders instead of questioning the measures or strategy. . . We are trying to stay in step with the international industry leaders. As a result, we have to passively accept some measures. (BSC Administrator of Brewery Department in No. 2 Factory)

Although [the BSC] is the leading performance measurement system in the factory, we have found it is scarcely related to any of our daily activities. (Employee of Financial Department in No. 2 Factory)

Analysis

Nørreklit (2000) claimed that lower level employees do not usually act on their own free will, they merely react to the strategy made by top management because of the BSC's top-down pattern. This is a problem that cannot be solved by the BSC (Nørreklit, 2000). This view is supported by findings from the factory level in this case. According to the

interviewees, the directors usually translate strategy to measures and assign these measures to the lower level employees. The jobs of the lower level employees are to work to achieve the targets for the measures. They hardly ever have a chance to question these measures. Although some people claimed that the directors usually receive feedback from their subordinates, there is no formal communication channel for feedback in this direction.

The top-down pattern is an inherent problem of the BSC which influences the process of management accounting change in the factories. Burns & Scapens (2000, p. 19) described informal change as a tacit level of change which is unintentionally formulated. They stated:

> bottom-up change (initiated by organizational members who use management accounting from one day to the next) is more likely to have an impact at a tacit level and to shape informal as well as formal management accounting change processes.

Lower level employees in the factories scarcely participate in the procedures of establishing the departmental BSCs. Some interviewees claimed that meetings are held to gather ideas from employees before the departmental BSCs are drawn up. However, the measures are usually translated and formulated before the meetings. Hence, the purpose of the meetings seems to be assigning jobs, rather than obtaining feedback and opinions from employees. This process has stifled informal change in the factories. The employees are passive, and they do not take time to think about the measures assigned to them. As a result, their understanding of the BSC is relatively poor. In addition, the lower level employees of the factories do not actively participate in the process of management accounting change. Thus, it is difficult to embed the BSC into the routines of their day-to-day work. Therefore, informal change could not be identified at lower levels of the factories.

In contrast, the change to the way of formulating the departmental and personal BSCs at Headquarters in 2007 addressed this inherent problem of the BSC, emphasising the importance of individual participation in the process. The more the employees are involved, the better the understanding they will have. As a result, the routines related to the BSC become easier to embed. The bottom-up direction of communication can solve the inherent

problem and stimulate informal change, indirectly influencing the emergence of new institutions at Headquarters.

Future plans

Headquarters

In 2010, while retaining the original four perspectives of the BSC, some adjustments will be made to the BSC at Headquarters: the implementation of the BSC will focus on its connection with the Annual Plan. Previously, departmental or personal BSCs normally contained about ten measures and ten action plans, which focused on the major work of a department or a staff member. However, the work of one department or an employee is far more than the items listed on the BSC. Thus, the development of the BSC in 2010 is intended to build a closer relationship between measures and day-to-day work.

Factory

Factories intend to make major changes to the BSC system in 2010. The original four perspectives of the BSC are to be replaced by a new system comprising ten modules which are directly translated from the company's and the Manufacturing Centre's strategies. The modules include quality, purchasing, cost, EHS (environment, health, and security), human resources, to name just a few. Each module is translated into several measures that relate to the work of the responsible departments.

The Manufacturing Centre was established in 2007. At that time, although Headquarters had implemented the BSC and some factories had formulated the BSC, the Manufacturing Centre was using the module pattern as their performance management tool. The Manufacturing Centre changed its performance management system to the BSC in order to comply with the company requirements and ensure the integration of the Manufacturing Centre with the organisation as a whole. Soon after this change, most factories implemented the BSC system, because the Manufacturing Centre has direct authority over all factories in the company. However, the Manufacturing Centre has decided to change back to the module

pattern of performance management system in 2010. All factories will be expected to adjust their performance management systems to be consistent with the Manufacturing Centre.

> Changing back to the module pattern is for better understanding and better implementation of the performance management system, because the major responsibility of the factories is manufacturing, not financial figures. (Knowledge Management Manager of the Management Department)

Under the BSC, factories have to use measures on the financial perspective, but for some departments they have nothing to do with financial figures. Similarly with the customer perspective, as most departments in the factories work in production only, they do not see themselves as having direct customers. In addition, it is hard to decide whether some measures should be put in the customer perspective or the internal process perspective. Therefore, using the BSC as a performance management system in the factories does not always make sense and sometimes it causes inconvenience. The module pattern relates more closely to the central work responsibility of the factories, which makes it easier for the factories to translate the measures from the strategies.

> We are still using the principles of the BSC. The only difference is that we do not group the measures into the four perspectives. We concentrate more on the central tasks. We start with the company strategy, and translate to measures that relate to our routines (Director of HR Department in No. 1 Factory).

Analysis

Scapens (2006) warns that resistance can arise if there is no careful consideration of the prevailing institutions in an organisation. At the time that the BSC was implemented at factory level, managers ignored the institutional thinking in the factory. The factories are production-oriented. Therefore, their priorities are all related to production and quality, rather than customers, sales and financial profit. When the BSC with its four perspectives was originally applied in the factories, measures from customer and financial perspectives were omitted; some measures were ambiguously grouped assigned to one of the four perspectives.

Discussion

In this section, the findings and analysis presented in the previous section are interpreted and discussed using Burns & Scapens' (2000) framework. The findings have shown that, in the process of institutionalisation at Tsingtao Brewery, although the BSC has changed considerably from the original design staff have become used to the rules and routines of the BSC at Headquarters; whereas the usage of the BSC among factories is different: the BSC has not been faithfully used at lower level of factories, and routines embedded in factories still largely depend on the previous system.

Burns & Scapens (2000) described four processes in institutionalisation: encoding, enacting, reproduction, and institutionalisation. Encoding, or the process of rules and routines being shaped by prevailing institutions, is evident in the changes since E-gate was employed to design and set up the BSC system for Tsingtao Brewery. Thereafter, the company made various adjustments and changes to the BSC to make it fit the organisation.

> The initial design of the BSC by E-gate was more from a macro-perspective. It was not good enough for the practical implementation in the future. We had to find a way to connect it with the day-to-day operations of the company. Thus, we added some elements to ensure its consistency with the company's daily operation. Some critical measures which were used in the previous system were also retained in order to minimise the impact caused by using the new system. Moreover, some complex forms or procedures suggested by E-gate were removed or simplified based on the internal structure of the organisation (Assistant Director of Strategic Investment Department).

The original BSC designed by E-gate seemed very technical and complicated. There were various obstacles and resistance to change even in some areas of Headquarters, let alone the factories. In order to overcome these, great efforts were made to simplify the BSC template and retain some measures that were used in the previous system to reduce the concerns of the employees. This process of encoding using measures which were already in

use and understood reduced the level of resistance to management accounting change in the company.

The process of encoding can also be used to explain the different usage of the BSC between No. 1 and No. 2 Factories. No. 1 Factory, the oldest factory of the company, formerly had no formal performance measurement system. When the BSC was introduced to all the factories, No. 1 Factory only developed their BSC because they were ordered to do so. However, there were no follow-up procedures to review and use it as a practical performance management system, so it was not encoded fully. In contrast, No. 2 Factory was one of the earliest factories to implement the BSC:

> Because the average age of employees in No. 2 Factory is relatively young, staff are more enthusiastic and creative. They have a desire to challenge themselves with new knowledge and innovative tools. Thus they are not usually afraid of any new tools, and willing to learn new things (Senior Staff of HR Department in No. 2 Factory).

Because of the different institutional forces at the two factories, usages of the BSC were different. The resistance to change in No. 1 Factory was high, and by 2009 they still had not established the performance measurement system, although the BSC was supposed to have been implemented several years ago. However, No. 2 Factory was one of the most successful models in using the BSC, as it had a high level of acceptance of change. The taken-for-granted thought and action in No. 1 Factory was to "take things as they are"; there was no incentive to change. However, the taken-for-granted thought and action in No. 2 Factory was "always to take a challenge". Thus, the case shows that encoding new rules and routines can be shaped and influenced by existing institutions (Burns & Scapens, 2000). Existing institutions usually act as barriers to change (Schein, 1992) and the change process may take longer than it is expected because of the culture and political influence (Sharma & Lawrence, 2008). However, this was not company-wide, as No. 2 Factory shows.

The enacting process entails people in the organisation performing routines (and following rules) in which institutional principles have been encoded (Burns & Scapens, 2000). In this case, the usage of the BSC differs among Headquarters departments. The

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responsibilities of a few departments are unique and simple, and so the original four perspective pattern of the BSC adds some additional work to these departments. Therefore the rules and routines that were enacted differed from other departments and from the original design of the BSC. These differences in what is enacted were also evident in the usage of the BSC at factory level. Although No. 2 Factory was claimed to be a model plant in its use of the BSC, there was a problem when the BSC was extended to the personal level in the HR Department: the personal BSC was developed but hardly used as it lacked relevance to their day-to-day work. In other words, the BSC rules and routines were not enacted at this level.

The main problem in the usage of the BSC in the factories was the difficulty in separating the critical objectives into the four perspectives, and then translating them into measures. Attempting to do so has caused misunderstanding and inconvenience. The performance assessment at factory level still partly follows the module-related system, which was supposed to have been replaced by the BSC. Thus, the BSC routines were not enacted in the factories, and therefore the BSC has not been or has only partly been institutionalised there. The existing institutions have prevailed.

The third process is reproduction of the routines by repeating behaviour (Burns & Scapens, 2000). At Headquarters, the change to the BSC has been an evolving process. The template that Headquarters now uses has changed significantly from the original design, having evolved to a simple table which has become embedded in staff's ordinary working life. The routines of BSC preparation and use have been reproduced from period to period, even though some changes have been encoded in them.

There is a major change in the usage of the BSC at factory level in 2010. Instead of the BSC's original four perspectives, measures are now being developed based on ten modules. Although there were claims that the module system still includes the principles of the BSC, the modules are similar to the system that the factories used before the implementation of the BSC and have no financial perspective. The change to the modules can be traced back to the problems at the enacting stage: what is being reproduced is not the BSC rules and routines, but an adaptation of the existing routines.

The last process in Burns & Scapens' (2000) framework is to institutionalise the reproduced rules and routines into the behaviour of the individual actors. Although there is some resistance from different areas of Headequarters, there is evidence of institutionalisation of the BSC as seen in its continuous usage for the last five years.

> We have become used to the routines and communication procedures that are built on the BSC basis. The way of making strategies has changed. Instead of writing so many things, we now first identify the targets. Then activities to achieve these targets will be identified. By doing so, not only can we get a better understanding of the strategy, but also build a deeper knowledge of how to improve performance, and relate it to the company strategy (Assistant Director of Strategic Investment Department).

The procedures of drawing up the strategy map and the BSC at Headquarters are becoming taken-for-granted ways of doing things, and have become disassociated from historical behaviours. Therefore, these routines of the BSC are institutionalised (Burns & Scapens, 2000). However, in the factories existing institutions have prevailed. Also, although the BSC was supposed to have been implemented throughout the company by September 2006, the BSC has not yet been used in the sales companies. The absence of the BSC in sales companies and replacement of the BSC in the factories indicate that the BSC is only partly institutionalised in Tsingtao Brewery.

In the attempt to institutionalise the BSC over the last five years, loose coupling has enabled parts of Tsingtao Brewery to appear to be accepting and using the BSC while resisting the change (Modell, 2003). On one hand, loose coupling was reduced when the management accounting change adapted to existing institutions: at Headquarters the BSC evolved from a complicated format to a simple table format. On the other hand, loose coupling was evident between the BSC rules and routines and the existing institutions embedded at the factory level, with a high level of resistance to change. Existing institutions and some BSC practices were used alongside each other for a while, but the existing institutions prevailed.

Formal versus informal management accounting change is one of three dichotomies of the change process found in Old Institutional Economics (Burns & Scapens, 2000). This contrast is evident at Tsingtao Brewery. The introduction of the BSC in the company was a formal management change, entailing much research and preparation work and top management support for its introduction. In addition, professional consultants were hired to help design and implement the BSC in the initial year. Thus, the formal change was a "conscious design" by a powerful group to introduce new rules or actions (Burns & Scapens, 2000). In particular, changes were formally made at both headquarters and factory levels: the new rules were formally introduced and BSC templates were designed and developed.

Informal changes are not intentionally formulated, but are embedded tacitly in practices. Burns & Scapens (2000, p. 18) warned that formal management accounting change may fail if it ignores "change in ways of thinking", which is the key element of informal change. The findings show a lack of informal changes in the factories, especially at the lower levels where behaviour was based on the previous system; that is, the way of thinking did not change in the factories. Burns & Scapens (2000) also indicated resistance might arise when informal change drops behind formal change, which can finally lead to failure of the implementation. In the factories, the deviation between formal and informal changes caused contradiction between formally introduced rules and prevailing ways of thinking. In contrast, informal changes did occur at Headquarters, with evidence of participation of lower level staff in the procedure of formulating the departmental BSCs and new strategy-based thinking. The consistency between the formal and informal changes helped the embedding of the BSC, leading to its institutionalisation at Headquarters.

Conclusions

This research has examined the usage of the BSC in a Chinese SOE. It has evaluated different evolving processes embedded in various parts of the company, at Headquarters and factory level. Institutional theory explains the findings.

It is concluded from the evidence at Tsingtao Brewery that the change to the BSC has been only partly institutionalised because the processes of management accounting change differ between various parts of the organisation. At factory level, where there was a high level of resistance to change, the managers did not realise that the former institutions were influencing the encoding process and preventing embedding of the new management practices. Loose coupling between rules and routines occurred in the factories, with staff preferring to stick to the routines developed by the former management accounting system. Although some loose coupling existed at Headquarters, continuous efforts were made to accommodate the contradictions between technical demands of the BSC and prevailing institutions. Both formal and informal changes were embedded in the evolving process of the BSC at Headquarters. As a result, the BSC was institutionalised.

This research is one of very few attempts to study management accounting change in a Chinese SOE, and in particular, the BSC. The analysis shows that, despite its foreign origins, institutional theory is relevant for explaining the process and outcome of management accounting change in a Chinese setting. The low success rate of BSC implementation in other Chinese companies may have similar institutional explanations. Furthermore, as the academic literature on the implementation of the BSC in eastern countries is scarce, this research adds some empirical evidence about the implementation of the BSC in non-western countries.

This research focuses on internal institutions, which is the emphasis of Old Institutional Economics. However, external pressures on institutions are also very important in explaining the process of management accounting change. Therefore, future research about management accounting change in China could focus not only on internal institutions, but also on external pressures. Combining internal and external institutions in future research would provide a holistic view and a better understanding of management accounting change in China.

References

Alexander, L. D. (1985). Successfully implementing strategic decisions. *Long Range Planning*, *18*(3), 91-97.

Anderson, S., & Lanen, W. N. (1999). Economic transition, strategy and the evolution of management accounting practices: The case of India. *Accounting, Organisations and Society*, *24*, 379-412.

Atkinson, H. (2006). Strategy implementation: A role for the balanced scorecard? *Management Decision*, *44*(10), 1441-1460.

Beer, M., & Eisenstat, R. (2000). The silent killers of strategy implementation and learning. *Sloan Management Review*, *41*(4). 29-40.

Bourne, M. (2002). The emperor's new scorecard. *Financial World*, August, 48-50.

Brignall, T.J.S. (2002). The unbalanced scorecard: a social and environmental critique, in A. Neely, A. Walters and R. Austin, Editors, *Performance Measurement and Management: Research and Action*, Performance Measurement Association, Boston, MA (2002), pp. 85–92.

Bryman, A., & Bell, E. (2007). *Business Research Methods* (2nd Ed.). Oxford: Oxford University Press.

Burns, J., & Scapens, R. W. (2000). Conceptualizing management accounting change: an institutional framework. *Management Accounting Research, 11*, 3-25.

Burrell, G., & Morgan, G. (1979). *Sociological Paradigms and Organisational Analysis: Elements of the Sociology of Corporate Life*. London: Ashgate.

Butler, A., Letza, S. R., & Neale, B. (1997). Linking the balanced scorecard to strategy. *Long Range Planning*, *30*(2), 242-253.

Collier, P. M. (2001). The power of accounting: a field study of local financial management in a police force. *Management Accounting Research, 12,* 465-486.

Debusk, G. K., Brown, R. M. & Killough, L. N. (2003). Components and relative weight in utilization of dashboard measurement systems like the balanced scorecard. *British Accounting Review*, *35*(3). 215-231.

DiMaggio, P. J. & Powell, W. (1983). The iron cage revisited: institutional isomorphism in organisational fields. *American Sociological Review*, *48*(2), 147-160.

Ezzamel, M., Lilley, S., & Willmott, H. (1993). *Changes in Management Practices in UK Companies*, London: CIMA.

Firth, M. (1996). The diffusion of managerial accounting procedures in the People's Republic of China and the influence of foreign partnered joint ventures. *Accounting, Organisations and Society*, *21*(7/8), 629-654.

Geng, J. (2009, August 27) The battle of Tsingtao Brewery stock protection end: Asahi promise not be largest shareholder (in Chinese). Retrieved from http://money.163.com/09/0827/21/ 5HOKUM7T00253DVK.html.

Greatbanks, R., & Tapp, D. (2007). The impact of balanced scorecards in a public sector environment: empirical evidence from Dunedin City Council, New Zealand. *International Journal of Operations & Production Management*, 27(8), 846-873.

Huang, C.D., & Hu, Q. (2007). Achieving IT-business strategic alignment via enterprise-wide implementation of balanced scorecard. *Information Systems Management*, *24*(2), 173-184.

Inamdar, N., & Kaplan, R. S. (2002). Applying the balanced scorecard in healthcare provider organisations. *Journal of Healthcare Management*, *47*(3), 179-196.

Johnson, H.T., & Kaplan, R.S. (1987). *Relevance Lost: The Decline and Fall of Management Accounting*, Boston: Harvard Business School Press.

Kaplan, R.S., & Norton, D.P. (1992). The balanced scorecard: measures that drive performance. *Harvard Business Review*, *70*(2), 71-79.

Kaplan, R.S., & Norton, D.P. (1996). Using the balanced scorecard as a strategy management system. *Harvard Business Review*, *74*(1), 75-85.

Kaplan, R.S., & Norton, D.P. (2001). *The Strategy-focused Organisation: How Balanced Scorecard Companies Thrive in the New Business Environment*. Boston, MA: Harvard Business School Press

Kasurinen, T. (2002). Exploring management accounting change: the case of balanced scorecard implementation. *Management Accounting Research*, *13*, 323-343.

Kloot, L., & Martin, J. (2000). Strategic performance management: a balanced approach to performance management issues in local government. *Management Accounting Research*, *11*, 231-251.

Liu, X., Liu, B., Shishime, T., Yu, Q., Bi, T., & Fujitsuka, T. (2010). An empirical study on the driving mechanism of proactive corporate environmental management in China. *Journal of Environmental Management*, *71*, 1707-1717.

Liu, S. J. (2006, Jan, 13). Tsingtao Brewery Co., Ltd. Harvard Business Review. Retrieved from http://hbr.org/product/tsingtao-brewery-co-ltd-a/an/ 905M63-PDF-ENG?Ntt=Shengjun+Liu.

Lukka, K. (2007). Management accounting change and stability: loosely coupled rules and routines in action. *Management Accounting Research*, 18, 76-101.

Malmi, T. (1997). Towards explaining activity-based costing failure: accounting and control in a decentralized organisation. *Management Accounting Research, 8*, 459-480.

Marr, B. & Adams, C. (2004). The balanced scorecard and intangible assets: similar ideas, unaligned concepts. *Measuring Business Excellence*, *8*(3), 18-27.

McKinnon, J. (1989). Reliability and validity in field research: some strategies and tactics. *Accounting, Auditing and Accountability Journal*, *1*(1), 34-54.

Modell, S. (2003). Goals versus institutions: the development of performance measurement in the Swedish university sector. *Management Accounting Research*, *14,* 333-359.

Nor-Aziah, A. K., & Scapens, R. W. (2007). Corporatisation and accounting change: the role of accounting and accountants in a Malaysian public utility. *Management Accounting Research, 18*, 209-247.

Nørreklit, H. (2000). The balanced scorecard: a critical analysis of some of its assumptions. *Management Accounting Research*, *11*(1), 65-88.

Olve, N., Roy, J., & Wetter, M. (1997). *Performance Drivers: A Practical Guide to Using the Balanced Scorecard.* Chichester: Wiley.

Orton, J. D. & Weick, K. E. (1990). Loosely coupled systems: a reconceptualization. *Academy of Management Review*, *15*, 203-223.

Patton, M. Q. (2002). *Qualitative Evaluation and Research Methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Quattrone, P., & Hopper, T. (2001). What does organisational change mean? Speculations on a taken for granted category. *Management Accounting Research, 12,* 403-435.

Ralston, D., Tong, J. T., Terpstra, R. H., Wang, X., & Egri, C. (2006). Today's state-owned enterprises of China: are they dying dinosaurs or dynamic dynamos? *Strategic Management Journal*, *27*(9), 825-843.

Scapens, R. W. (2006). Understanding management accounting practices: a personal journey. *British Accounting Review*, *38*, 1-30.

Schein, E. (1992). *Organisational Culture and Leadership* (2nd ed.). San Francisco, CA: Jossey-Bass.

Schwarze, F., Wuellenweber, K., & Hackethal, A. (2007). Drivers and barriers to management accounting change. *AAA 2008 Management Accounting Section Meeting Paper*. Retrieved May 7, 2010, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1003371.

Seo, M. G. & Creed, W. E. D. (2002). Institutional contradictions, praxis, and institutional change: a dialectical perspective. *Academy of Management Review*, *27*(2), 222-247.

Sharma, U., & Lawrence, S. (2008). Stability and change at FPTL: an institutional perspective. *Australian Accounting Review, 18*(1), 25-34.

Siti-Nabiha, A.K. & Scapens, R. W. (2005). Stability and change: an institutionalist study of management accounting change. *Accounting, Auditing & Accountability Journal*, *18*(1), 44-73.

Sulaiman, M., Ahmad, N.N. N., & Alwi, N. (2004). Management accounting practices in selected Asian countries: a review of the literature. *Managerial Auditing Journal, 19*(4), 493-508.

Tang, G., Gao, D., & Du, F. (2006). The adoption and usages of modern management control systems in Chinese state-owned enterprises: a field study. Management Accounting Section Meeting. *AAA 2007 Management Accounting Section Meeting*. Retrieved August 4, 2009, from http://ssrn.com/abstract=921417.

Tsingtao. *Brief introduction*. Retrieved July 25, 2009 from http://www.tsingtao.com.cn/.

Umashev, C. & Willett, R. (2008). Challenges to Implementing Strategic Performance Measurement Systems in Multi-Objective Organisations: The case of a Large Local Government Authority. *Journal of Accounting, Finance and Business Studies*, *44*(4), 377-398.

Weick, K. E. (1976). Educational organisations as loosely coupled systems. *Administrative Science Quarterly, 21*, 1-19.

Figure 1: Nine Stages of the BSC Development at Tsingtao Brewery

Project stage		Content	Time
Stages with the help of consultant company (E-gate)	Stage 1	Develop company strategy map and BSC	December 2004
	Stage 2	Develop strategy maps and BSCs for one selected company and four selected factories	January 2005
	Stage 3	Develop Five Function departmental BSCs of Headquarters	February 2005
	Stage 4	Establish the BSC management system	March 2005
Self development stages	Stage 5	Trial Run	April-July 2005
	Stage 6	Run the BSC in all other Headquarters functional departments, 8 sales companies, 50 factories	August 2005 –September 2006
	Stage 7	Establish the performance management system based on the BSC	December 2005- January 2006
	Stage 8	Run BSC reporting and meeting system	January 2006
	Stage 9	Develop the BSC at personal level and Knowledge Management Planning based on the BSC objectives	Beginning 2006-End 2006

Source: Internal material from Tsingtao Brewery, translated by researcher from Chinese into English