



Identify Factors Affecting the Application of a Balanced Scorecard in Vietnamese Enterprises

Dang Thi Thuy Giang^{1}, Le Cao Dai²*

^{1,2} University of Labour and Social Affairs, Hanoi, Vietnam

ABSTRACT:

The balanced scorecard strikes a balance between different metrics to simultaneously achieve strategic goals, thus encouraging employees to act in the best interests of the organization. Thanks to the balanced scorecard, organizations ensure balance in performance measurement, orienting individual behavior toward the organization's common goals. Successful implementation of a BSC system will be influenced by many factors inside and outside the enterprise. These factors can increase the effectiveness of applying BSC in the enterprise and vice versa. Starting from the outstanding advantages of BSC and the actual application of BSC to different businesses will be different due to the influence of many factors, so the article aims to research and understand the factors affecting the operation of BSC. Using balanced scorecard in Vietnamese enterprises.

KEYWORDS: factors, balanced scorecard, application.

1. INTRODUCTION

The birth of the balanced scorecard has overcome the limitations of short-term financial measures, reflecting past results by adding metrics, creating motivation for future organizational development. The balanced scorecard strikes a balance between different metrics to simultaneously achieve strategic goals, thus encouraging employees to act in the best interests of the organization. It is a tool that helps companies stay focused, improve connectivity, set organizational goals and provide feedback on strategy. The balanced scorecard provides a system of key performance indicators that complement traditional financial measures with other measures of customer satisfaction, internal business processes, learning and development activities. Thanks to the balanced scorecard, organizations ensure balance in performance measurement, orienting individual behavior toward the organization's common goals. Successful implementation of a BSC system will be influenced by many factors inside and outside the enterprise. These factors can increase the effectiveness of applying BSC in the enterprise and vice versa. In the world, there are many studies showing factors affecting success in applying BSC in businesses. Kevin Hendric and colleagues (2004) conducted a survey of senior executives of 579 Canadian companies who were closely involved in the adoption and implementation of BSC in organizations. The results show that business strategy, organizational size, and environmental uncertainty influence BSC adoption. Braam and Nijssen (2008), based on the diffusion of innovation theory of Rogers (1995). This group of authors surveyed 40 companies in the Netherlands, data were collected in a questionnaire survey. The respondents were mainly accountants, financial directors, and managers. The research model includes 7 variables, including 6 independent variables: level of manager participation; degree of centralization; power of the finance department; standardization and internal communication; product and market dynamics. Recognizing the importance of BSC for businesses in a globally competitive economy, many research projects on factors affecting BSC have been carried out in Vietnam. Dang Thi Huong (2010), researching Vietnamese service businesses, identified 5 factors affecting the performance of using BSC: manager participation, role of the finance department, awareness of BSC, education, training and information technology. Associate Professor, Dr. Vo Van Nhi, Dr. Pham Ngoc Toan (2016), research on listed companies in Ho Chi Minh City.

Starting from the outstanding advantages of BSC and the actual application of BSC to different businesses will be different due to the influence of many factors, so the article aims to research and understand the factors affecting the operation of BSC. Using balanced scorecard in Vietnamese enterprises.

2. LITERATURE REVIEW

BSC is considered one of the 75 most influential ideas of the 20th century. In 2011, consulting firm Bain announced that BSC had entered the top 10 most widely used management tools in the world (ranked 6th position). In the period 1999-2011 alone, there were 114 articles published in 25 accounting journals and 67 articles in business and management journals. Up to now, BSC is still a topical issue of concern to scientists and managers. Research issues mainly focus on organizations' understanding of BSC and the meaning of BSC for organizations; Research to evaluate the value of BSC by comparing organizational performance before and after using BSC; Research on the difficulties and advantages of applying BSC in practice, thereby

providing lessons learned; Research on factors affecting the application of BSC. BSC is an effective and necessary tool to measure performance in businesses. Through measuring performance, BSC helps managers make decisions faster and more accurately. To successfully implement a BSC system, it will be influenced by many factors inside and outside the enterprise, these factors can increase the effectiveness of applying BSC in the enterprise and vice versa.

Kevin Hendric and colleagues (2004) conducted a survey of 579 Canadian companies. The results show that business strategy, organizational size, and environmental uncertainty have an impact on BSC adoption. Specifically: BSC application is significantly related to business strategy, organizations with business strategies are more likely to apply BSC compared to other organizations; Scale has a positive impact on the tendency to apply BSC because as organizations grow, problems in communication and control increase, so organizations are more likely to apply management systems like BSC; Environmental uncertainty: Research shows that environmental uncertainty has a positive influence on the tendency to adopt BSC.

Oana Adriana (2007) believes that the factors affecting the application of BSC are related to the stages of BSC implementation in the organization. As a result, there are ten factors affecting the four stages of successful BSC implementation. That is the support of senior leaders; Correctly evaluate the factors that customers, shareholders, and employees find valuable; create a governance process that involves stakeholders; design systems to perform the actual work of the organization; Develop measurement scales at the highest and lowest levels; create a communication campaign so that BSC both leads focus on the mission and ensures the reliability of the implementation process and the integrity of reporting; Align the system (identify the types of activities that link the vision and strategy, link them to the organization's plan, evaluation system, budget); ensure reliability in the implementation process and honesty in reporting; Create a transparent and timely information system; Connect work results with rewards through an evaluation system.

Braam and Nijssen (2008) surveyed 40 companies in the Netherlands with subjects including accountants, directors, and managers. The study includes 7 factors: level of manager participation; degree of centralization; power of the finance department; standardization and internal communication; product and market dynamics. Research results show that the level of participation of managers and the power of the finance department play an important role in accepting BSC; The level of centralization and internal communication have a positive influence on the acceptance of using BSC; Standardization has a negative impact and the remaining two factors, product and market dynamism, do not affect the acceptance of BSC.

Tanyi (2011), examines the factors that influence managers' use of BSC to explain why some companies use BSC successfully while others do not even though they all use BSC to interpret strategy, plan, control, obtain feedback and monitor implementation. Group of factors studied: (1) Control system managers are using; (2) A manager's ability to receive new knowledge; (3) How managers evaluate subordinates and two new factors introduced from applying the technology acceptance model are: (4) Managers' perception of the usefulness of the BSC; (5) Perceived ease of use of BSC by managers. Tanyi (2011) used questionnaires to survey subjects in companies using BSC in Finland. The survey subjects were heads of departments of large corporations, presidents, CEOs and other key officials in the organization with decision-making authority. Research results show that: For the purpose of using BSC for decision making, two factors: the ability to receive new knowledge by managers and the perceived ease of use of BSC by managers have positive and negative impacts. significant impact; For the purpose of coordinating work, all 5 factors have no impact; Finally, to monitor work efficiency, the factor of the manager's ability to receive new knowledge has a positive impact, the remaining 4 factors include the manager's way of evaluating subordinates, easy perception managers' use of the BSC, the perception of the usefulness of the BSC by the manager has an impact but is not statistically significant.

Shutibhinyo (2014) believes that successful implementation of BSC requires a positive attitude towards BSC. Information collected from 73 survey questionnaires, has shown that top management support and training influence the use of BSC through attitudinal factors of perceived ease of use. and perceived usefulness. Quesado et al. (2014), based on data obtained from a survey of 591 publicly owned organizations (local governments, corporations, cities and hospitals) and 549 private organizations In Portugal, the results show that there are 7 factors affecting the application of BSC including: form of capital ownership, level of vertical differentiation; level of hierarchy; standardization and organizational culture; Professional qualifications of managers and employees.

In Vietnam, we can mention the research of author Bui Thi Hai Van (2009) on small and medium enterprises (SMEs) in Vietnam. The model proposes 4 influencing factors including: (1) Personal usefulness; (2) Usefulness on the part of the company; (3) Perceived ease of use; (4) General attitude. Research results show that there are 3 out of 4 factors affecting the intention to use BSC in SMEs in Vietnam: usefulness on the part of the company; perceived ease of use; general attitude. Recognizing the importance of BSC for businesses in a globally competitive economy, many research projects on factors affecting BSC have been carried out in Vietnam. Dang Thi Huong (2010), researching Vietnamese service businesses, identified 5 factors affecting the performance of using BSC: manager participation, role of the finance department, awareness of BSC, education, training and information technology.

Research by author Tran Quoc Viet (2012) shows that there are 6 factors affecting the level of acceptance of the BSC model in strategic management in Vietnamese businesses, which are: (1) Level of participation participation of senior leaders; (2) Degree of centralization; (3) Power of the finance department; (4) Standardization; (5) Internal communication; (6) Product - market dynamics. And the level of impact of each factor is different: The participation of senior leaders, the power of the finance department, internal communication, the dynamism of the product - market have a positive impact, The remaining two factors are centralization and standardization, which have a negative impact on the level of acceptance of BSC in strategic management in Vietnamese enterprises. The results also show that: Senior leaders in the company play a very important role in promoting the innovation process in general and BSC acceptance in particular; The balance in the level of systematization as well as centralization of power within the company creates motivation to promote the process of accepting BSC; NB communication and the level of influence of the TC department promote the innovation process, accepting a new management tool such as BSC; The ability to change and respond to rapid market changes will promote the level of acceptance of BSC applications as well as innovation in general.

Associate Professor, Dr. Vo Van Nhi, Dr. Pham Ngoc Toan (2016), research on listed enterprises in Ho Chi Minh City. The group of factors studied includes: Company size, managers' awareness of BSC, business strategy, company culture, BSC organizational costs and accounting staff qualifications. Dao Thi Thu Giang, Tran Tu Uyen (2018), research at the largest manufacturing enterprises in Vietnam (survey on website <http://vnr500.com.vn>). The study concludes that a group of factors affect the successful application of BSC: BSC awareness, level of participation of managers, role of financial accounting, information technology, development training and internal communication.

In summary, in the world and in Vietnam there have been many studies on factors affecting the implementation of BSC. The studies were based on different theories and different research contexts by the authors, leading to research results are mixed. Factors include: scale, type of capital ownership, standardization, degree of centralization, business strategy, internal communication, power of TC department, corporate culture, employee qualifications, the manager's support, attitude, qualifications, the manager's way of evaluating subordinates...

3. THEORY OF USE

Random theory

Theories that match organizational structure and contextual variables are collectively called contingency theories. According to this theory, each organization's internal factors and external environmental conditions are different, so there is no one "best" structure for organizations. The basic argument in contingency theory proposed by Otley (1980) in research on management accounting content is that "there is no model that can fit every organization". Each organization has its own characteristics in terms of operating goals and operating environment, so it is necessary to have an organizational model suitable for its organization. According to Chenhall (2007), the application of BSC must be consistent with the organizational structure, environment, strategy, technology, scale and culture of the organization.

Applying contingency theory, based on an overview of factors affecting the use of BSC from research projects in the world and in Vietnam, the author proposes factors affecting the application of BSC to with manufacturing enterprises in Hanoi city. Because of the size of the business, the corporate culture of different businesses will create differences in the way BSC is applied in each business..

Diffusion theory of innovation

According to Rogers (1995) there are many factors that affect an organization's ability to adopt innovation such as the application of BSC in an enterprise. These include the personal characteristics of managers: managers participate in creating commitment and creating support for the organization to implement an innovation.

Applying this theory, the author studies the factor of managers' ability to access new knowledge that affects the use of BSC in businesses..

Technology acceptance model

The technology acceptance model (TAM) was introduced by Davis in 1986 based on the theory of reasoned action (Ajzen and Fishbein, 1980) and the theory of planned behavior (Ajzen, 1985). TAM has undergone a number of changes since it was built. The original TAM proposed by Davis (1986) proposed three factors that influence technology acceptance including: perceived usefulness of technology, perceived ease of using technology and user attitude.

TAM is a widely applied theory in the study of new technology acceptance. According to Legris et al. (2003), this model is also useful in general user acceptance behavior research. Similarly Hongfei and Rui (2016) also argue that TAM is widely applied in different industries and contexts, used to predict and explain the determinants of technology acceptance in organizations.

Hongfei and Rui (2016) used TAM to help evaluate and explain managers' decisions to use BSC. Using TAM is a theoretical framework to measure the factors that influence managers to use BSC in China. The author uses the TAM model revised in 1996 to research factors affecting the decision to use BSC. Applying this model, the author considers the influence of factors of perceived usefulness and perceived ease of use of managers towards BSC into the research model. Because according to Davis, these are two factors that have a decisive influence on the application of BSC in businesses.

4. CONCLUSION

From the above theoretical basis, the author proposes to research factors affecting the application of balanced scorecard in Vietnamese enterprises as follows:

Evaluate the influence of corporate culture on BSC application, including 3 scales: Administrator's support for employees (VH1); Mutual support between employees and departments (VH2); And consensus on common goals in the business (VH3). These are measurement scales inherited from the research of Wiersman (2009) and Tanyi (2011).

Evaluate the impact of business scale on BSC application, including 3 scales: Large revenue increases BSC application (QM1); Large assets increase BSC application (QM2); And a large number of employees are increasingly applying BSC (QM3). The scales of the variables were used by Hoque & James (2000) in research on factors affecting the use of BSC, so the scale ensures content.

Assessing the impact of managers' ability to access new knowledge on applying BSC, including two scales from Wiersma (2009), Tanyi (2011), Hongfe and Rui (2016). Accordingly, the manager's ability to receive new knowledge is assessed through two observed variables: the manager is willing to receive knowledge from the new management system (KT1) and the BSC is more suitable for assessment. compared to traditional metrics (KT2).

Evaluate the impact of perceived usefulness of the BSC system by managers on BSC application, including 3 scales: Usefulness in implementing BSC (HU1); BSC information is clear and easy to understand (HU2); and flexible-to-use BSC (HU3). These variables are based on Davis's (1989) research on user acceptance in the field of information technology. Furthermore, Tanyi (2011), Hongfei and Rui (2016) were used to research factors affecting the use of BSC, so the scales ensure content.

Evaluate the perceived impact of the perceived ease of use of the BSC by managers on the application of the BSC, including 4 scales: Ease of learning how to use the BSC system (SD1); Easily become proficient in using BSC (SD2); BSC easy to use (SD3); and BSC System makes work easy (SD4). These are scales inherited from the research of Tanyi (2011), Hongfei and Rui (2016), so the scales ensure content.

The dependent variable scale, assessed according to 4 aspects of BSC and inherited from the studies of Wiersma (2009), Tanyi (2011), Hongfe and Rui (2016). Specifically, the BSC application variable is measured through 4 scales: BSC effectively supports businesses in evaluating financial performance (VD1); BSC supports businesses effectively in terms of customers (VD2); BSC supports businesses in improving internal processes (VD3); And BSC supports businesses to improve employee qualifications through learning and training aspects (VD4).

REFERENCES

- [1] Braam, G. and Nijssen (2008), Exploring the Antecedents of Balanced Scorecard Adoption as a Performance Measurement and Strategic Management System, accessed March 18, 2015 from https://www.ru.nl/publish/pages/516298/nice_08115.pdf.
- [2] Van, BTH. (2009), Factors affecting the intention to apply the balanced scorecard to small and medium-sized enterprises in Vietnam, Master's Thesis, University of Science and Technology, Ho Chi Minh City
- [3] Davis, F. D. (1986), "A technology acceptance model for empirically testing new end-user information systems: Theory and results, doctoral dissertation", MIT Sloan School of Management, Cambridge, MA.
- [4] Hongfei, G.R.W. (2016), Determinant Factors influencing the use of Balanced Scorecard in China, accessed March 18, 2015 from <http://www.divaportal.org/smash/get/diva2:942487/FULLTEXT01.pdf>
- [5] Hoque, Z. & James, W. (2000), "Linking balanced scorecard measures to size and market factors: impact on organizational performance", *Journal of Management Accounting Research*, 12(1), 1–17.
- [6] Kevin B. Hendricks, Larry Menor, Christine Wiedmen (2004), "The Balanced Scorecard To adopt or not to adopt?", *Ivey Business Journal*, pp.1-9.
- [7] Shutibhinyo, W. (2014), "Determinants of balanced scorecard usage: indirect correlation through attitudinal factors", *Global Journal of Business Research*, V8, 17- 23.
- [8] Tanyi, E. (2011), Factor influencing the use of Balanced Scorecard. PhD Thesis. Hanken School of Economics.