

## The Implementation of Management Accounting Innovations “The Case of Balanced Scorecard Implementation within Jordanian Manufacturing Companies”

**ABEDALQADER RABABA’H**

Assistant Prof, Accounting Department Zarqa’ University, Jordan

Email: [abedalqader.rababah@gmail.com](mailto:abedalqader.rababah@gmail.com)

---

### *Abstract*

*The current research tries to determine the implementation of Balanced Scorecard rate in the context of Jordanian Manufacturing Companies. In order to satisfy the research objectives, both, a questionnaire survey was used to determine the implementation rate, and semi-structured interviews were utilized to find out the factors impacting the implementation of BSC. Data analysis included within company and cross-company analysis. The findings revealed that BSC’s implementation in the context of Jordanian Manufacturing Companies is approximately 38%. Findings from the semi-structured interviews reveal that factors including fashion, forced decision, fad and efficiency are directly related to BSC implementation decision in the target companies. In addition, factors that both facilitate and motivate BSC implementation are: top management support, higher information technology, globalization of consumer, increased competition. The findings from the interviews also revealed that the barriers to BSC implementation are high cost of installing and maintaining the system followed by the lack of information to implement BSC, Resistance from employees, a lack of software packages supporting the BSC, and there were misunderstandings about the relationship between the espoused organizational strategy and the BSC scorecard.*

**Key Words:** *Balanced Scorecard, Innovation, Implementers, Manufacturing Companies, Jordan.*

---

### **Introduction**

Recent years have brought changes and challenges in the business environment that organizations have to face. These challenges are compounded by deregulation in reaction to the increasing global competition and the shortened product life cycle stemming from technical innovations (Abdel-Kader & Luther, 2008; Narong, 2009; Upton, 2012). Consequently, novel management practices including the just-in-time management philosophy, balanced scorecard, total quality management practices and activity-based costing system have been proposed.

Researchers such as (Abdel-Kader & Luther, 2008; Johnson & Kaplan, 1987) highlighted the crisis in management accounting due to its low implementation percentage. In addition, other researchers (such as Askarany 2009; Al Sawalqa, Holloway & Alam, 2011; Upton, 2012) stressed on the innovation and directed in the area of the balanced scorecard (BSC). Because the benefits of BSC are attractive, companies all over the world have employed it as a tool. Nevertheless, the BSC successful operation calls for the effective implementation and continuous management due to the measures and assumed strategic linkages attributed to it.

The BSC has been hailed among the most significant current developments in the field of managerial accounting that combines the traditional performance measures with leading indicators of future financial

performance in a framework relating organizational strategy with operational measures. The BSC has gained distinction as a system of performance-evaluation and it has not evolved into a core organizing tool in the development and evaluation of strategy. Main performance measures are categorically divided into four namely financial, customer-related, internal business processes, and learning and growth (Upton, 2012).

Kaplan and Norton (1992) came up with the scorecard in an attempt to help managers keep track of their performance in a performance measurement system that is related to the strategy of the organization and is devoid of financial measures reliance. Financial measures are known to be performance indicators that lag and are often overly-aggregated to be of assistance to management. Moreover, financial measures can also be manipulated with ease to reach short-term results while forsaking long-term performance. The balanced scorecard is a moniker that is a reflection of the balance between short and long-term objectives, between financial and non-financial measures, between indicators that are lagging and leading and finally, between perspectives of external and internal performance (Kaplan & Norton, 1996, p.viii).

However, Innes and Mitchell (1990) found three types of factors influencing management accounting change process. These factors are facilitators, motivators and catalysts. These groups of factors were thought to be linked in the sense that the motivators provided the impetus for the emergence of catalysts, whilst the facilitators paved the way for subsequent change initiatives.

Kasurinen (2002) and Cobb et al. (1995), in their studies on management accounting system change, found many barriers and problems during the implementation of ABC, which mostly led to failure of the change process, such as resistant attitudes to change or changing priorities during the change process. Wenisch (2004) conducted a case study in Sweden's large sized multinational companies. The empirical data describes five years of BSC adoption and implementation process in five business divisions.

Wenisch (2004) found that during the top-down implementation process, most of the factors influence the change process and are considered facilitators such as IT-support and catalyst factors that can be directly associated with change; for instance, fashion perspective. Wenisch also found lack of motivator factors that influence the change in a general manner like globalization. This type of factors is not experienced by the change implementation division. This is due to the change process having been enforced in a top-down manner, where motivators would instead have an impact on the initial adoption decision on the top management level. However Al Sawalqa et al. (2011) suggested for future research to study the Motivation for implementing the BSC approach and other accounting innovations using a qualitative approach

Prior studies however are divided on their perspectives as to the factors that affect BSC and they revealed knowledge gaps with regards to the use of BSC as a novel management accounting tool. Similarly, information concerning the diffusion of new management accounting tools is still few and far between. Therefore, studying the BSC diffusion would be a good contribution to the field and even more so as processes of diffusion are considered to be change related (Bjornenak, 1997). It can thus be stated that understanding diffusion leads to understanding change and is a potential assessment of change. Moreover, diffusion is linked significantly with innovation and in turn, with the competitiveness and effectiveness of the organization (Wolfe, 1994).

Accordingly, examination of BSC diffusion in one organization may lead to better understanding of the issue of context-oriented accounting change. Additionally, this examination would also contribute to the knowledge of why some companies employ and use BSC while others do not.

In the context of Jordan, owing to the inconsistent findings in extant literature, more investigations are called for. According to Hutaibat (2005), most of the empirical studies were conducted in the West and only a few of them can be found in the developing countries specifically about BSC implementation. The present study is concentrated on Jordan and the dynamic changes that have been taking place in the

Jordanian business environment brought about by globalization, intense competition coming from multinational establishments in the country who enter into joint ventures with local companies or those who have their regional offices in Jordan. These changes are also attributed to have led to management accounting practices changes in the country (Al-Khadash & Feridun, 2006; and Hutaibat, 2005).

## Research Questions

1. What is the current state of BSC implementation among Jordanian manufacturing companies?
2. What are the main factors that motivate the implementation of BSC?
3. What are the factors that are (catalyze) directly associated with the implementation of BSC?
4. What are the main factors that facilitate the implementation of BSC?
5. What are the problems encountered during the implementation of BSC?

## Literature Review

### The Underlying Theories

#### Diffusion of Innovations

Innovation diffusion has been examined from extensive perspectives. The primary objective behind the theory of innovation diffusion is to state, clarify or predict the adoption of innovation levels and trends throughout time or space. The research question to be addressed is, "what is the diffusion pattern through a population of potential adopter organizations?" (Cooper & Zmud, 1990).

#### Management Accounting Change

A review of literature highlights the conceptual difference between innovation and change. According to Bradford and Kent (1977) and Firth (1996), innovation is the adoption of novel ideals or a previous idea in a new set of circumstances/settings. However, change does not always bring about new innovation or new ideas. The research model development in the present research is underpinned by the theoretical framework of management accounting change models proposed by Innes & Mitchell (1990) as being catalysts, motivators and facilitators.

## Empirical Literatures

### BSC Implementation Rate

Conducted surveys in developing and developed countries, when compared, revealed various rates of BSC implementation between countries; for instance, the adoption rates in India were reported to be 45.3% and 40% by Anand et al. (2005) and Joshi (2001) respectively, while the adoption rate of BSC in Malaysia was reported to be 30% of Malaysian manufacturing companies as a PMS wholly or partially (Josoh et al., 2008). In Australia, Chenhall and Langfield-Smith (1998) reported the adoption rate to be at 88% while Rigby (2001) conducted a survey for the years 1993-1999 involving 15 countries in North America, Europe and South America. He reported that 43.9% of the companies in the respondent nations stated that they were utilizing the BSC method. In the U.S., Ittner et al. (2003) stated that 20% of various financial service sectors utilized the approach whereas in German-speaking countries including Austria, Switzerland and

Germany, 26% of the surveyed firms used the approach according to 174 senior management respondents (Speckbacher et al., 2003). In the U.K., Franco-Santos et al. (2004) surveyed various sectors and revealed that 19% of the companies used BSC and in Egypt, Ismail (2007) found that 60.5% of the Egyptian private sector companies engaged in various sectors of the economy adopted a BSC approach. Finally, in Jordan, Zuriekat and Al-Sharari (2008) revealed that BSC usage is at 40.5% by banks and insurance companies whereas Al-Sawalqa et al. (2011) conducted a survey involving 168 medium and large industrial companies in order to determine their rate of BSC usage. The findings showed that 35.1% of the companies utilized the approach. The latter results reveal that the diffusion rate of BSC in Jordanian companies is as expected as it is within a comparable range with other developing and developed countries.

### **Factors Influencing the Process of Change**

Regardless of the difference between innovation and change, the factors impacting the former in management accounting change are also impacting the innovation adoption process. Innes & Mitchell's (1990) study involving seven companies in the electronic sector highlighted three kinds of factors that impacting management accounting change process namely facilitators, motivators and catalysts. The facilitator factors provide the most optimum conditions to managers that they require but are not enough on their own for management accounting change. They facilitate easy and successful management accounting changes with some examples including; consultants availability, training and availability of sufficient resources like accounting staff and computing resources.

In addition, motivator factors general influence the change and they include market competitiveness, product cost structure, and production technology. Finally, the catalyst factors are those factors directly related to changes including poor financial performance, loss of market share, new accountants and profitability decline. Abrahamson (1991) explained this last factor in his model as categorized into efficient-choice, force decision, and fad/fashion. The catalyst factors are the source of change in management accounting while motivator factors drive and nurture the catalysts appearance. Facilitators on the other hand, help in making smooth and successful changes. The resulting interactions between the three factors are the determinants of the success and development of the change process in management accounting.

### **Factors related to creating Barriers to Change**

While implementing BSC, problems may crop up that relate to practices of change implementation or barriers to change experienced by employees that could slow down the process and in some instances, prevent the change required (Kasurinen, 2002). The present study is an attempt to determine the barriers to change that may shed a light upon the low rate of BSC implementation in the context of companies in Jordan.

These barriers were categorized by Kasurinen (2002) into three. The first one comprise of factors disrupting the case project; for instance, a divergence between division project goals and that of business unit management along with the project's uncertain future role in the company. The second barrier are delayers which are considered as technical and temporary factors that are often attributed to new managing technology. Kasurinen highlighted the lack of clarified strategies and insufficient information systems, factors that comprise this category. The final barrier to change is called frustrates which are considered as factors suppressing the organizational attempt to change. Instances of frustrates take shape in the prevailing engineering culture that reinforces the BSC perception as a diagnostic measurement as opposed to a strategic planning tool or an extant reporting system within the company. In this regard Ismail (2007) conducted a survey of the companies in the Egyptian private sector to investigate the performance of their evaluation measures and to determine barriers that may confine the BSC application. The respondents were requested to list the reasons as to why BSC usage rate are limited. The respondents cited insufficiency of information systems as a main obstacle followed by lack of information regarding BSC adoption,

management's less than enthusiastic attitude towards non-financial measures when it comes to performance evaluation, significant costs for the acquisition and maintenance of performance evaluation systems, ambiguous company strategies and insufficient software packages to support BSC. Most of the problems during the implementation process according to Wenish (2004) are attributed to problems of acceptance and communication, definition of suitable scorecard measures and their actual measurement and difficulties hampering IT efficient processing and BSC data. This is consistent with Thompson and Mathys' (2008) study which identified four main barriers to BSC use. The first one is the lack of understanding of the significance of the organizational processes; second, ignorance regarding the requirement of items consistency with BSC; third, lack of organizational understanding of the requirement for suitable metrics; and finally, misunderstandings regarding the espoused organizational strategy-BSC scorecard relationship.

## Methodology

Questionnaire survey was used in the current study, 82 surveys were distributed within the Jordanian shareholding manufacturing companies. The aim of the questionnaire is to know the implementation rate in this sector. This process took place from 10th March to 1th April 2013. Eighty-two questionnaires were distributed and seventy-seven questionnaires returned, thereby giving a response rate of 94%. A phone call were made afterwards to improve the response rate. This is followed by semi-structured interviews conducted with financial managers / assistant financial managers of companies within the Jordanian manufacturing companies. This study analyzes the data collected from interviews with representatives of six companies that have currently implemented BSC approach to identify the factors which influence to BSC implementation and the problems during the implementation process. The data analysis was set by using both within company and cross company analysis.

## Data analysis

### Quantitative Data Analysis

Based on the results of the questionnaire survey, companies are classified as follows:

Table 1 Number of companies in each category of BSC implementation

Name of the Stage	Number of the Companies
Implementers	29
Non- Implementers	48
<b>Total</b>	<b>77</b>

Based on the above results the BSC implementation in the Jordanian shareholding Manufacturing Companies is approximately 38% measured according to the number of implementers companies within these companies.

### Qualitative Data Analysis

This part describes within-company analysis and Cross-company Analysis for Implementer Companies. It provides a summary of background information which gives an overall picture of each company. Then it provides an outline of a cross-company analysis. It includes all factors and problems identified by companies and their overall assessments in each individual company.



The six companies interviewed gradually moved to implementing BSC approach. In all companies, there is strong evidence that the fad and the fashion perspectives are the most key factors for BSC implementation within the Jordanian manufacturing companies. One company said that force decision is the reason for BSC implementation, and at the same time one company said that efficiency choice is the reason for their implementation. The finding from the interviews shows the reasons for implementing BSC system in Jordanian manufacturing sector contain all Abrahamson four perspectives which are Fad, Fashion, Efficiency choice and Forced decision.

Most of the respondents from the participating companies (five companies out of six) said that changing the business environment, globalization and the increase of competition motivated their decision to implement BSC. Concerning the facilitator factors, Top management support is the mainly important factor to influence BSC implementation. According to the result from the qualitative data, five out six companies decided that top management fully support, commit and are concerned in the process of BSC implementation. This finding is consistent with the more general finding implying that almost all successful innovations require top management support. Hence, top management should concentrate on resources, goals and strategies in BSC implementation and they must obvious their promise to BSC by using the information it provides as the basis for decision-making. The companies agreed also that higher information technology was the mainly significant factor to facilitate their choice to implement BSC. IT can also provide detailed data relating to the company performance measurements.

Through BSC implementation process, the organization could be faced with problems related to changing implementation in practice. The mainly difficulties encountered are high cost of installing and maintaining the system followed by the lack of information to implement BSC, Resistance from employees, a lack of software packages supporting the BSC, and there were misunderstandings about the relationship between the espoused organizational strategy and the BSC scorecard.

## Conclusion

This paper collected the data from questionnaires and semi-structured interviews to determine the implementation rate, and to find out the factors impacting the implementation of BSC. The data analysis shows that catalysts, motivators and facilitators factors influence to BSC implementation. These finding is consistent with previous studies such as Innes and Mitchell (1990) who found three types of factors influencing management accounting change. These factors are facilitators, motivators and catalysts. Wenisch (2004) found that most of the factors influence the change process and are considered facilitators such as IT-support and catalyst factors that can be directly associated with change; for instance, fashion perspective. But he found lack of motivator factors that influence the change in a general manner like globalization.

## Recommendations and Suggestions for Future Research

Future research can extend the present one into several avenues. First, the present study is focused only on Jordanian manufacturing shareholding companies included in the Amman Stock Exchange – this study limitation may adversely affect the findings generalizability. Therefore, a more expansive research ground is called for in future research for the acquisition of extensive information concerning other companies' BSC perceptions (within Jordan and in other countries). Second, literature review revealed that studies dedicated to examining the impact of BSC use upon organizational performance is few and far between. Thus, more studies are required to add to literature concerning Jordanian manufacturing companies and to develop a model assessing the BSC use affect upon organizational performance. Third, future research should also attempt to test the degree of BSC implementation success. Moreover, in the context of Thailand, according to Chongruksut (2002), the economic crisis should be considered as a main variable that encourages the new management accounting innovations adoptions like ABC for survival. Despite the fact that the influence of the Thai crisis to the Thai 1997 economy was more severe than the influence of

the recent financial crisis to Jordan's economy, the global financial crisis has led to economic recession which brought about dynamic changes in prices of goods and fueled the competitiveness in the market and this impact in the international markets will eventually significantly impact Jordan as it is a WTO member and it has entered into several economic agreements with the U.S. Moreover, the recent global crisis triggered by the U.S. mortgage market crisis has encouraged companies to keep up with the times. Therefore, future studies should examine the economic crisis role in motivating BSC implementation.

## References

- Abdel-Kader, M., & Luther, R. (2008). The impact of firm characteristics on management accounting practices: A UK-based empirical analysis. *The British Accounting Review*, 40(1), 2-27.
- Abrahamson, E. (1991). Managerial fads and fashions: The diffusion and rejection of innovations. *The Academy of Management Review*, 16(3), 586-612.
- Al-Khadash, H. and Feridun, M. (2006). *Impact of strategic initiatives in management accounting on corporate financial performance: evidence from Amman Stock Exchange. Managing Global Transitions*, 4(4), pp. 299 -313.
- Al – Sawalqa, F; Holloway, D; & Alam, M, (2011). Balanced Scorecard Implementation In Jordan: An Initial Analysis. ; *International Journal of Electronic Business Management*, Vol. 9, No. 3, pp. 196-210 (2011).
- Anand, M., Sahay, B. S. and Saha, S., (2005). "Balanced scorecard in Indian companies," *VIKALPA*, Vol. 30, No, 2, pp. 11-25.
- Askarany, D. (2009). An Investigation Into The Diffusion Of Cost And Management Accounting Innovations In Australia (August 7, 2009). AAA 2010 Management Accounting Section (MAS) Meeting Paper. Available at SSRN: <http://ssrn.com/abstract=1445439>.
- Bjornenak, T. (1997). Diffusion and accounting: the case of ABC in Norway. *Management Accounting Research*, 8(1), 3-17.
- Bradford, M. G., & Kent, W. A. (1977). *Human Geography: Theories and their applications*. Oxford: Oxford University Press.
- Chenhall, R. H. and Langfield-Smith, K., (1998) "Adoption and benefits of management accounting practices: An Australian study," *Management Accounting Research*, Vol. 9, No. 1, pp. 1-19.
- Chongruksut, W. (2002). *The Adoption of Activity-based Costing in Thailand. Unpublished PhD thesis, Victoria: Victoria University*.
- Cobb, I., Helliard, C., & Innes, J. (1995). Management Accounting Change in a bank. *Management Accounting Research*, 6(2), 155-175.
- Cooper, R. B., & Zmud, R. W. (1990). Information Technology Implementation Research: a Technological Diffusion Approach. *Management Science*, 36(2), 123-139.
- Firth, M. (1996). The Diffusion of Managerial Accounting Procedures in the People's Republic of China and the influence of foreign partnered joint ventures\* 1. *Accounting, Organizations and Society*, 21(7-8), 629-654.
- Franco-Santos, M., Bourne, M. and Huntington, R., 2004, "Executive pay and performance measurement practices in the UK," *Measuring Business Excellence*, Vol. 8, No. 3, pp. 5-11.
- Hutaibat, K. A. (2005). *Management Accounting Practices in Jordan: A Contingency Approach. Unpublished PhD thesis, Bristol: Bristol University*.
- Innes, J., & Mitchell, F. (1990). The Process of Change in Management Accounting: some field study evidence. *Management Accounting Research*, 1(1), 3-19.
- Ismail, T. H., 2007, "Performance evaluation measures in the private sector: Egyptian practice," *Managerial Auditing Journal*, Vol. 22, No. 5, pp. 503-513.
- Ittner, C. D., Larcker, D. F. and Randall, T., 2003, "Performance implications of strategic performance measurement in financial services firms," *Accounting, Organizations and Society*, Vol. 28, No. 7-8, pp. 715-741.

- Johnson, H. T., & Kaplan, R. S. (1987). *Relevance lost: The rise and fall of management accounting*. Harvard Business School Pr.
- Joshi, P. L., (2001). "The international diffusion of new management accounting practices: The case of India," *Journal of International Accounting, Auditing, and Taxation*, Vol. 10, No. 1, pp. 85-109.
- Jusoh, R., Ibrahim, D. N. and Zainuddin, Y., (2008). "The performance consequence of multiple performance measures usage: Evidence from the Malaysian manufacturers," *International Journal of Productivity and Performance Management*, Vol. 57, No. 2, pp. 119-136.
- Kaplan, R. S. and Norton, D. P., (1992). "The balanced scorecard-measures that drive performance," *Harvard Business Review*, Vol. 70, No. 1, pp. 71-79.
- Kasurinen, T. (2002). *Exploring Management Accounting Change: The Case of Balanced Scorecard Implementation. Management Accounting Research*, 13(3), pp 323-343.
- Rigby, D., 2001, "Management tools and techniques: A survey," *California Management Review*, Vol. 43, No. 2, pp. 139-160.
- Speckbacher, G., Bischof, J. and Pfeiffer, T., 2003, "A descriptive analysis on the implementation of balanced scorecards in German-speaking countries," *Management Accounting Research*, Vol. 14, No. 4, pp. 361-387.
- Thompson, K. R. and Mathys, N. J., 2008, "The aligned balanced scorecard: An improved tool for building high performance organizations," *Organizational Dynamics*, Vol. 37, No. 4, pp. 378-393.
- Upton, D; (2012). Experimental Balanced Scorecard Research: Implications for Practitioners. *Management Accounting Quarterly*.VOL.13, NO.4.
- Wenisch, S. (2004). *The Diffusion of a Balanced Scorecard in a Divisionalized Firm—Adoption and Implementation in a practical context*. Umeå: Umeå University Press.
- Wolfe, R. A. (1994). Organizational Innovation: Review, Critique and Suggested Research Directions. *Journal of Management Studies*, 31(3), 405-431.
- Zuriekat, M., 2005, "Performance measurement systems: An examination of the influence of the contextual factors and their impact on performance with a specific emphasis on the balanced scorecard approach," *University of Huddersfield, UK. PhD Thesis*.
- Zuriekat, M. and Al-Sharari, M., 2008, "The relationship between business strategy, market competition, and the use of the balanced scorecard: An application on Jordanian commercial banks & insurance companies," *Jordan Journal of Business Administration*, Vol. 4, No. 2, pp. 245-256.