Factors Influencing Balanced Scorecard Implementation

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Abstract
In this research, based on O’Reilly et al and Denison models, we search for the relationship between organizational culture and Balanced Scorecard implementation (BSC) by empirical studies, through conducting 366 questionnaires on Jordanian industrial companies, and using factor analysis and Logistic regression analysis. The results of this study showed that the cultural factors have significant positive impact on the implementation of BSC. The results showed that the data analysis of team orientation, Innovation, and mission have significant relationship on BSC implementation. The results also showed that no relationship found between "outcome orientation and attention to Detail" and BSC implementation.

Keywords: Balanced scorecard, O’Reilly et al. model, Denison model, Organizational culture.

1. Introduction
During the past five to ten years, more and more corporate have been encountering a very high speed changes in their internal and external environments. Organizational encounters and difficulties have been increased by deregulations such as: the growing of universal oppositions and the declining of product lifetime due to the high-tech inventions (Fadzil & Rababah, 2012). Various scholars such as Johnson & Kaplan, 1987; Askarany & Yazdifar, 2010 emphasized that business accounting practices are at high risks, for the reason that its execution level is still near to the ground. In addition, new scholars like Askarany (2009), Alsawalqa, Holloway and Alam (2011), Upton (2012), and Rabab’ah (2014) stressed innovation in connections with the Balanced Scorecard (BSC).

Kaplan and Norton established the concept of BSC in 1992. Their objective was to get rid of the shortfalls of the old-fashioned financial-based performance indicators. In the last ten to fifteen years, most of the fortune 1000 organizations are switching to BSC (Hendricks, 2004; Kraijenbrink, 2012). Nowadays, thousands of private, public, and non-for-profit organizations have implemented the BSC (Kaplan, 2010; Basyouny, 2014). The majority of businesses applying the BSC think that it only work for a short period. In actuality, less than 20% of organizations applying the BSC have recognized computable performance enhancement (Williams, 2004; Nuveen, 2008).

Former researches tried to figure out what cause this little execution level by examining the affiliation between some managerial and technical aspects and BSC. There have been very little empirical studies on the connection between administrative culture and BSC implementation. Peters (1982) summarized the cultural structures of some up-and-coming corporates, and designed a group of “outstanding” business principles. Barney (1991) assumed that managerial culture is an essential immaterial business reserves and could carry out never-ending competitive gains.

Prior researches such as (Norton and Kaplan 2004, and Deem et al. 2010) initiate a straight connections between administrative culture and the implementation of BSC. Roberts and Scapens (1993) proposed that administrative culture is a life-threatening aspect which influences the fight of business accounting modifications. They added that workers in organization entities with further inventive cultures are more expected to react confidently to innovative managing methods and practices, then and there the opportunity of their achievement will be maximize. On the contrary, the reverse will occur in organization entities with a lesser amount of inventive cultures.

Up until now, there have been a smaller amount of pragmatic studies on the correlation between managerial traditions and BSC execution. The significant of this research comes from the extensive employment of the BSC and, by the same token, the high letdown of BSC development. Earlier researches nevertheless are divided on their point of view as to the features that influence BSC execution. Knowledge crack stay with relation to the applying of BSC as an original administration accounting instrument. Likewise, facts regarding the flow and achievement of recent administration accounting kit is still little and far-flung. It will be a strong field contribution to study the weight of cultural factors on the BSC dissemination (Sangster, 2006; and Bjornenak, 1997). Conversely, the following cultural factors in this research (Outcome-oriented, Innovation, Team orientation, Attention to detail, and Mission) will examine the affiliation between balanced scorecard method
Rapid changes in Jordanian economy encourage Jordanian companies to implement BSC because the economic environment is an important consideration in any research in management and accounting. Jordan has become the centre for investments in the Arab world; especially after the wars in Iraq and Syria. Many investors and refugees transferred and moved their investments and factories into Jordan. This recent diversity on the forms of competition made it increasingly necessary to implement new tools to get better performance in undeveloped countries as in developed countries, including the use of Balance Scorecard. These modifications were guided by the requirements of the Jordanian companies to apply BSC System for the reason of having a competitive edge in the market.

Rabab'ah (2014) believed that Jordan experience restriction of publications about executive accounting studies frequently. This research donates to the advance growth of information in management accounting and it supplies the underpinning for additional studies in Jordan and other developing nations in the Middle East. To our awareness, this is the initial research perform on this topic at the Jordanian businesses. Our role on this aspect of study is far more extensive and it would assist in the execution of proper management apparatuses in the Jordanian businesses. This study, as well could provide some company escorts for the execution of balanced scorecard (BSC) modern method.

2. Literature Review:

2.1 Balanced Scorecard:

The balanced scorecard (BSC) method has been established and developed as a performance measurement principle over the last two decades (Kaplan & Norton, 1992). Since its underpinning, the conceptual framework has been changed and has been adopted by many companies (Kaplan & Norton, 2004). The BSC was typically applied in business disciplines and in the strategic management area for industries (Rabab'ah, 2014). However, BSC can be also proposed in government agencies, universities, and non-profit organizations (Niven, 2008; Pietrzak, Paliszkiewicz and Klepacki, 2015).

Companies have recently adopted the BSC system to fill up the gap in the traditional performance systems. The BSC got its name from the acknowledgement for the need to balance the objectives of performance measurement by the creation of shareholder value and the promotion of strategic objectives as well. This is done via financial and non-financial indicators which can address both short and long-term strategic objectives. It is different from the traditional systems which consist of measures with no clear association to the promotion of strategic objectives.

The BSC is different from other performance systems in that it is customs to the organization’s needs, operating environments, and strategies. It also uses measures that are significant to its success. According to Ittner, Larcker and Randall (2003), BSC models improve performance by transforming strategies into objectives and measures that are related to the fundamental sequences for leading and logging indicators for the purpose of summarizing the four scorecard perspectives. Depend on that, the process of BSC can be summarized into the following: clarifying and translating vision into strategy, communicating and linking strategic objectives into measures, planning, setting targets and aligning strategic initiatives, and finally, enhancing strategic feedback and learning. In order to accomplish the above aims, the BSC consists of four perspectives namely customer perspective, internal business perspective, innovation and learning perspective, and lastly financial perspective.

Financial Perspective

In this perspective, the manner in which the business wishes to portray itself to the shareholders is identified (Norrelklit, 2000). Financial measures are considered as the pioneering and the most widely used measurement tool in the field of management accounting (Tapaniya, 2004). Their primary focus is on events in the past and these may include measures that deal with the profitability of the organization. Several authors proposed varying financial measures in their studies.

To start with, Hoque and James (2000) proposed operating income, sales growth and ROI as financial measures while Maltz, Shenhar, and Reilly (2003) suggested profit margin, revenue growth, cash flow, net operating income, ROI, revenue per employee, profit per employee, stock price/market capitalization, economic value added (EVA), earnings per share (EPS), return on equity (ROE), and common equity growth. These measures vary from company to company, indicating no standard set of financial measures that can be applied throughout various contextual organizational frameworks and environments.
Customer Perspective
The measures in this perspective address the way customers’ perceive the organization. As a result, performing effectively and efficiently in the eyes of customers is top priority for management and integral strategy component. This strategy basically concentrates on customer satisfaction and the outcome in market share, new customer acquisition, customer retention, and customer profitability (Kaplan, 2001). According to Michalska (2005), customer measures is the level of meeting the needs of customers and these include price level, customer’s ranking, matching deliveries with orders, time of realization of orders, market participation, new customer percentage, percentage of customers retained, customer satisfaction, and brand acquaintance. As it addressed customer’s needs, the BSC becomes a means by which management is able to measure the organizational performance in the quest to be customer driven. Therefore, this needs measures that reflect customer’s expectations and what management-perceived customer expectations.

Internal Business Perspective
It is without a doubt that the needs and perceptions of the customers are not often directly under the control of business. Thus, customer-oriented measures should be transformed into indicators of what step to take in business in order to satisfy customer’s needs. In this regard, Thompson and Mathys (2008) contended that internal processes are core to completing tasks within an organization because after management identifies the significant products and services that impact customer satisfaction or financial performance, the next step is to identify the key processes influencing the outcomes. Business processes are under the direct control of the organization and through them, strategic objectives are achieved. These include productivity, quality, and time duration for production to marketing.

Specifically, cost reduction reflects a crucial element of business operations and may not be considered just a means to an end to customer satisfaction but as a specific strategic advantage. Customers are more inclined to maintain a relationship with the organization if they perceive the business to be efficient and reliable. This relationship is required to achieve the strategic objectives of the organization and to maximize shareholder value. Employees should be aligned with the corporate strategic objectives because it is their actions at an operation level that impact business processes.

Learning and Growth Perspective
Learning and growth stems from three major sources namely people, systems and organizational procedures. These three reflect the infrastructure that is needed by the company to develop and maintain long-term progress and enhancement as the current dynamic global competition calls for companies to improve and enhance their abilities continuously so that they may deliver customer and shareholder value (Kaplan and Norton, 1996a). Learning and growth activities concentrate on transforming strategies into actions to improve organizational ability via its employees to be competitive in the future and to achieve short and long-term goals (Thompson and Mathys, 2008).

This perspective encapsulates tools that determine the development of the company namely workers rotation, expenses on new technology, expenses of employee’s training, and time of innovation introduction to a market (Kaplan, 2001). These measures basically focus on factors facilitating ongoing improvement like employee satisfaction, employees’ annual suggestions, store computerization, and training hours invested in brand managers yearly (Banker, Chang, and Pizzini, 2004). Hoque, Mia and Alam (2001) employed learning and growth measures namely number of new patients, number of new product launches, time-to-market new products, and employee satisfaction.

Furthermore, this perspective allows management to develop a complete strategy overview of the company by defining the capabilities and skills of employees, technology and the corporate climate required to enhance and reinforce an effective strategy (Kaplan and Norton, 2001). In other words, the basic BSC concept is to derive the objectives and measures from the complete corporate vision and strategy so that BSC perspectives may be employed for the monitoring and achieving of such objectives.

2.2 Organizational Culture:
The paper named Research on Organizational Culture that was first published in the administrative science quarterly by Pettigrew (1979) dealt with the concepts of organizational culture. Soon after that, the characteristics, levels, and dimensions of organizational culture were studied by a group of researchers from different positions. Shultz (2006) identify organizational culture as a group of collective intellectual guesses that steer organizational tasks by defining appropriate behaviours for different perspectives. Therefore, a business may have its possessed exclusive culture with negative and positive features. Detert, Schroeder, and Muriel
stated that there are as many as 164 meanings of organizational culture anticipated in creative writing.

Several models for describing different pointers of organizational cultures have been developed through prior researches. Previously, group of researchers, such as Hofstede, divided culture into four dimensions: femininity vs. masculinity, power distance, uncertainty avoidance, and collectivism vs. individualism. Schein (1992) noted three levels of culture: implied basic assumption, shared values, and explicit signs and behaviours. But Denison came out in (1995) to divide organizational culture into four characteristics: mission, consistency, participatory, and adaptability.

O’Reilly, Caldwell, and Chatman (1991) designed a model stands on the conviction that cultures can be notable by values that are armoured within businesses. They define their own organizational culture profile model (OCP) as a self reporting tool that creates dissimilarities depending on the following seven forms: people's respect, outcome orientation, stability, team orientation, attention to details, aggressiveness, and innovation. Organizational performance will be affected by organizational culture to some degrees, as this model showed. It computes the main resourceful individuals fitting in an organization to be expressed as high-quality organizational culture.

The correlation between organizational culture and efficiency of organizations has drawn consideration from researchers for many years. Rigby and Bilodeau (2007) concede that businesses culture openly influence the accomplishment of organization apparatuses and tools used to support businesses in their decision making processes, and functional enhancements.

Culture in which people were deeply aware of internalizing the core values, vision, and mission needed to carry out the business strategies had to be part of a business that successfully implemented the BSC method as reported by Kaplan and Norton (2004). Studies in business accounting reported by Reeve, Harrison, and Baird (2007) examined some cultural factors prepared depend on Hofstede et al. (1990) and O’Reilly et al. (1991) models. These factors such as (outcome orientation, team orientation, attention to detail, and innovation) proposed that there is a correlation between cultural factors and current business mechanisms. Bescos and Charaf (2013) examined the implementation of ABC and the impact of these same cultural factors such as (outcome orientation, team orientation, attention to details, and innovation) on it, and they arrive to a correlation between some of these cultural factors and ABC adoption with relation to both of organizational culture and balanced scorecard (BSC) method.

2.3- Hypotheses Development:
In the following sections the main hypotheses are described focusing on the five factors of company unit’s culture which are: outcome orientation, team orientation, innovation, attention to details, and mission.

**Outcome orientation:** This factor means that Outcome-oriented organizations highlight achievements, outcomes, and conducts as significant values (Sheridan, 1992). This variable was taken from the O’Reilly et al. (1991) organizational culture profile (OCP). Baird et al. (2004) bring into being that businesses that are outcome-oriented are fascinated to new organization mechanisms, such as BSC method, to enhance processes, obtain improved performances, and competitiveness. Charaf and Bescos (2013) examined the impact of cultural factors such as (innovation, outcome orientation, team orientation, and attention to details) and the adoption of ABC, and they bring into being a correlation between some of these cultural factors such as outcome orientation and ABC adoption. Deem et al. (2010) carry out the straight correlation of organizational culture on the successful implementation of BSC method. Based on the above arguments the following research hypothesis is formulated:

**Hypothesis 1:** There is a positive relationship between outcome orientation and the implementation of BSC method.

**Team orientation:** This factor means that businesses with a team-oriented culture highlight cooperation and collaboration among workers. This variable was taken from the O’Reilly et al. (1991) organizational culture profile (OCP). Previous studies such as Baird et al. (2007) bring into being a major correlation between team orientation and business achievement at each of the following three levels: AA, ACA and ABC. In Morocco Charaf and Bescos (2013) examined the impact of cultural factors on the adoption of ABC, and they didn't find any major correlation between team orientation and ABC adoption. Based on the above argument the following research hypothesis is formulated:

**Hypothesis 2:** There is a positive relationship between team orientation and the implementation of BSC method.
Innovation: Businesses that have innovative cultures are adjustable, bendable, and carry out experimentation with innovative ideas and tools effortlessly. This variable was taken from the O’Reilly et al. (1991). Baird et al. (2004; 2007) found a positive correlation between innovative culture, business actions execution, and ABC. Malmi (1997) believed that most difficulties affecting business actions achievement comes from oppositions in the organization. Workers in businesses with more innovative cultures are more likely to respond positively to new methods, thus growing the opportunity of their achievement, whereas the reverse will occur in businesses with less innovative cultures. Based on the above argument the following research hypothesis is formulated:

**Hypothesis 3:** There is a positive relationship between innovation and the implementation of BSC method.

Attention to detail: Business divisions with a detail-oriented culture pay attention to details and put emphasis on precision. These divisions are more likely to value the information produced by BSC method because of their needs for accuracy and details. On the other hand, divisions that put less stress on details might abandon the time or resources which are essential to make BSC method implementation successful. Nevertheless, this variable was taken from the O’Reilly et al. (1991) organizational culture profile (OCP). Baird et al. (2007) bring into being a positive correlation between attention to detail and the implementation of business actions and ABC. Based on the above argument the following research hypothesis is formulated:

**Hypothesis 4:** There is a positive relationship between attention to details and the implementation of BSC method.

Mission: Any Business unit intending to implement BSC has to have clear mission, values, vision, and strategy in place. It is well known that the BSC mostly concerns the implementation of previously planned strategies; it translates the Business unit mission, values, vision, and strategy into performance objectives, and measures them in each of the BSC perspectives. This factor adapted from the Denison’s model (1990). Assiri and Eid (2006) said that clear mission, values, vision, and strategy have a basic role in BSC implementation. Any company intending to implement BSC has to have clear mission, values, vision, and strategy in place. It is well known that the BSC mainly concerns the implementation of already planned strategies; it translates the organization mission, values, vision, and strategy into performance objectives, and measures them in each of the BSC perspectives. Deem et al. (2010) found positive relationship between organizational culture such as Mission and the successful implementation of the BSC. Based on the above discussion the following research hypothesis is formulated:

**Hypothesis 5:** There is a positive relationship between Attention to detail and the implementation of BSC. Our research model is presented in Figure 1

![Figure 1. Research model](image-url)

3. Research Methodology:
Questionnaire was used in the current study; the sample frame for this study includes those manufacturing companies with 50 workers or more. The questionnaires were forwarded to financial managers and assistant financial managers within the Jordanian manufacturing companies. The aims of the questionnaire are to know the impact of cultural factors on balanced scorecard (BSC) method implementation in the Jordanian manufacturing sector. This process took place from the 15th of Dec to the 17th of Feb, 2015. There were 366 questionnaires distributed as part of the study. Each company was contacted by telephone before and after sending the questionnaire, to encourage the participants to respond to the study and to check the accuracy of
postal address details. There were 240 questionnaires returned, fifteen of them were rejected, and that leaves 225 questionnaires in which participants respond to, and therefore the response rate came up to 61%.

To measure the dependent variables on the status of BSC method, only two criteria used namely the implementation or non-implementation of BSC method, but in regard to the measurement of the independent variables the questionnaire covered the business division's cultural dimensions. Four of the organization cultural factors were measured using the sum of the cultural items value which loaded on those dimensions following the factor analysis of the 26-item version of the organizational culture profile (OCP) (O'Reilly et al., 1991). These factors (outcome orientation, team orientation, innovation, and attention to detail) corresponded to previous studies (Baird et al. 2007; and McKinnon et al., 2003). Measures for the four focal factors (outcome orientation, team orientation, attention to detail, and innovation) were calculated with the sum of scores for the items loading modestly on each factor (Appendix). All items used 5 points Likert scales with range of 1 as "not valued at all" and 5 as "valued to a very great extent". (Appendix A). The fifth organizational culture dimension, mission, values, vision and strategy was measured with an six-items developed from Denison and Neale (2000) OCSI. All items used 5 point Likert scales with anchors of ‘1 = not valued at all’ and ‘5 = valued to a very great extent’. (Appendix A).

4. Data Analysis:

to test hypotheses Logistic regression will be used in this research. Logistic regression can only be used where there are two dichotomous categories (e.g. BSC Implementation and non-BSC implementation). Under logistic regression, the normality is not necessarily the same for both dependent and independent variables. Hair et al. (1998) state that logistic regression is one of the most widely used linear probability models. logit estimates models in which the dependent variable can take only two values, 1 and 0. The overall measure of how well the model fits is given by the likelihood value (-2LL or -2 log likelihood). Logistic regression has been used and reported in the published management accounting. In this research logistic regression analysis was selected to test the hypotheses relating to the influence of the cultural factors on the implementation/non-implementation of BSC.

The sample size of the organizations is 57 implementers and 168 non-implementers. Table 1 below shows logistic regression data analysis.

<table>
<thead>
<tr>
<th>Sig.</th>
<th>t</th>
<th>Standardized Coefficients</th>
<th>Model</th>
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<tbody>
<tr>
<td>.000</td>
<td>7.400</td>
<td>(Constant)</td>
<td>1</td>
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<tr>
<td>.948</td>
<td>.066</td>
<td>.005</td>
<td>Outcome Orienta</td>
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<tr>
<td>.000</td>
<td>14.156</td>
<td>.736</td>
<td>Team Orienta</td>
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<tr>
<td>.000</td>
<td>4.073</td>
<td>.309</td>
<td>Innovation</td>
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<tr>
<td>.218</td>
<td>1.236</td>
<td>.065</td>
<td>Attention To Detail</td>
</tr>
<tr>
<td>.003</td>
<td>3.052</td>
<td>.147</td>
<td>Mission</td>
</tr>
</tbody>
</table>

Based on the above analysis the factors “Outcome Orientation and Attention To Detail” are not significant, because sig >0.05, so the first and fourth hypotheses are rejected and no any relationship between BSC implementation and Outcome Orientation or Attention To Detail because the significant value more than 0.05, but factors team orientation, innovation and Mission are significant because sig<0.05 and there are a relationship between these factors and BSC implementation because the significant value less than 0.05 so the second, third and fifth hypotheses are accepted. Next figure shows the research model after the data analysis.
This study distributed the questionnaires to collect the data to know if there are positive relationship between cultural factors such as (outcome-orientation, team orientation, innovation, attention to details, and mission) and BSC implementation.

The data analysis didn't show any relationship between "outcome orientation and attention to detail” and BSC implementation. It also shows that team orientation, innovation and, mission have significant relationships on BSC implementation. These finding is consistent or in conflict with previous studies such as Malmi (1997) who said that employees in companies with more innovative cultures are more likely to react positively to new techniques. Baird et al. (2004) found companies that are goal or outcome-oriented and innovated are attracted to new management practices, such as BSC. Charaf and Bescos (2013) tested the influence of cultural factors such as (innovation, outcome orientation, team orientation, and attention to detail) and the adoption of ABC, and they found a relationship between outcome orientation, innovation and ABC adoption, but they didn’t find any significant relationship between team orientation, attention to detail and ABC adoption. In the same time, Baird et al. (2007) found a significant relationship between team orientation, innovation, attention to detail, and management success at each of the three levels of AA, ACA and ABC.

In regard to the mission factor, Deem et al. (2010) found positive relationship between organizational culture such as mission and the successful implementation of the BSC system.

This research has advanced the literature by identifying the relationship between cultural factors and BSC implementation. These results give valuable information to managers about the possibility for successful implementation of the BSC in their companies. This research suggests that cultural factors play a significant role in determining the success or failure of BSC implementations. So, the companies must take these factors into account before, during, and after BSC implementation. They must adjust their expectations regarding the results or outcomes to be achieved, and the speed in which they can be producing for the best of the company.

6- Recommendations and Suggestions for Future Research:
Several avenues have been identified for future researches. The following recommendations are applicable: First of all, the present study is focused only on Jordanian industrial sector. This research limitation may unfavourably influence the findings generality. Therefore, a more expandable research ground is called for in future studies in order to attain extensive information concerning BSC perceptions in other sectors whether in Jordan or in other countries. Secondly, literature review showed that only a few studies such as Shukri and Ramlia (2015) carried out an investigation about the impact of BSC implementation on financial performance. So, future researches should try to find out the relationship between BSC implementation and the enhancement of financial performance. In any case, these cultural dimensions are not chosen to cover all of the factors affecting adoption of activity management, but were chosen as examples to represent the factors that have been suggested or found to affect the implementation of balanced scorecard (BSC) in general. Future studies may test other cultural factors.
References
Detert, Schroeder and Mauriel (2000),A framework for linking culture and improvement initiatives in organizations.


