Measuring the Performance of Jordanian Banks through Balanced Scorecard Approach

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Abstract

Balanced Scorecard (BSC) is a performance measurement system that converts an organization's value drive such as customers, services, financial performance, operational efficiency and innovation to a series of defined metrics, and records. It is a management system that enables organizations to clarify their vision and strategy, translate them into action and provides feedback to improve strategic performance and results. It results in improved processes, motivated/educated employees, enhanced information systems, monitored progress, and greater customer satisfaction. The present research investigates the effect of using balanced scorecard (BSC) approach on the organizational performance of selected Jordanian banks. Multiple linear regression has been used for data analysis. The findings revealed that balanced scorecard approach has a significant impact on the organizational performance of banks under study.

Keywords: balanced scorecard (BSC), regression, organization, performance, banks.

Introduction

The term Balanced Scorecard (BSC) reflects the balanced between short and long term objectives, between financial and non-financial measures, between lagging and leading indicators, and between external and internal performance perspectives (Kaplan and Norton, 1996). Balanced Scorecard is a measurement system that enables organizations to clarify their vision and strategy and translate them into action. It provides feedback around both the internal business processes and external outcomes in order to continuously improve strategic performance and results (Thomas, Gable, and Dickinson, 2014). BSC is a framework which translates an organization's vision and strategy into a coherent set of performance measures. It helps business to evaluate how well they meet their objectives. The BSC is a performance measurement system using a multi-dimensional scorecard to translate strategy into a balance of financial and non-financial performance measures. BSC is a combination of non-financial and financial measures developed to meet the shortcomings of traditional management control and performance measurement systems. BSC incorporates financial performance measures with non-financial performance measures in areas such as involving customers, internal processes and learning and growth (Mooraj, Oyon, and Hostettler, 2009).

BSC is a conceptual framework for translating an organization's strategic objectives into a set of performance indicators distributed among four perspectives- financial, customer, internal business process and learning- growth. BSC is a valuation methodology that converts an organization's value drive-such as customers, services, financial performance, operational efficiency and innovation- to a series of defined metrics, records and analyses these matrices to help determine if they are achieving strategic goals'. It explains how the BSC is a system that converts value drivers of the organization into metrics to evaluate strategic goal achievement (Phillips, and Louvieris, 2005).

BSC is a performance measurement system derived from vision-strategy and reflects the most important aspects of the business. BSC is a new management concept which helps managers at all levels to monitor results in their key areas (Khanka, 2012). It monitors current performance as well as tries to gather information about how well the organization is positioned to perform better in future. BSC focuses on the link between business process and decisions and results. It is considered as a device to guide formulation, implementation and communication. It also helps in tracking the performance and evaluation. To conclude, it can be said that BSC is a system of combining financial and non-financial measures of performance in one single scorecard. It includes performance measures for four perspectives; financial, customer, internal business process and learning-growth (Chow, Haddad, and Williamson, 2012).

Review of Literature

Irbihat & Ashraf (2017) in their research paper entitled, *"Impact of Balanced Scorecard Usage on the Organizational Performance: A Case Study of Jordan International Insurance"* examined the impact of

balanced scorecard approach on the organizational performance of Jordan International Insurance. Data was collected with the help of a well structured questionnaire from 175 employees working in Jordan International Insurance. Besides, linear regression was used to test the hypotheses. The findings showed that customer perspective, internal business process perspective, learning and growth perspective, and financial perspective have a significant impact on the organizational performance because significant value in each variable was less than 0.05. Therefore, the research concluded that balanced scorecard approach has a significant impact on the organizational performance in Jordan International Insurance. The research conducted by Ombuna et.al (2013) entitled, *"Impact of Balanced Scorecard Usage on the Performance of Commercial Banks"* explored the effect of balance scorecard usage on the performance of commercial banks in Nakuru District, Kenya. The sample size of the study was 72 respondents which include operations managers, human resource managers, branch managers and customer service mangers. The author applied Pearson's correlation to test the relationship between variables. The study revealed that the effectiveness of BSC usage lies on the organizations dynamics, execution, monitoring and evaluation procedures. Besides, it was revealed that BSC usage has a positive impact on the performance of commercial banks and it helps organizations in clarifying their vision and strategy. The authors suggested that banks should develop products and services that have competitive advantage in order to get competitive advantage and to satisfy the needs of customers. Farooq & Hussain (2011) in their research paper entitled, *"Balanced Scorecard Perspective On Change And Performance: A Study Of Selected Indian Companies"* examined the relationship between balance scorecard, change and organizational performance and found that Indian organizations have incorporated the dimensions of BSC as a performance measurement tools and use it to create change and improve performance. The study revealed that there is less difference in the use of BSC between public and private sector as well as service and manufacturing organizations. Moreover, the authors explored that private and public sector organizations differ on the dimension of technological change but service and manufacturing organizations differ on the dimension of financial perspective. The conclusion is that there is a significant correlation between BSC and organizational performance. Kaplan & Norton (1992) in their study highlighted that balanced scorecard is a set of measures that offers top managers a fast and comprehensive view of the business. It identifies the influence of non-financial factors upon strategic success and present advantages over historical performance measures.

Objectives of the Study
1. To discuss the concept of balanced scorecard approach.
2. To examine the impact of balanced scorecard approach (BSC) on the organizational performance of Jordan Kuwait Bank.
3. To examine the impact of balanced scorecard approach (BSC) on the organizational performance of Cairo Amman Bank.
4. To examine the impact of balanced scorecard approach (BSC) on the organizational performance of Arab Bank.
5. To examine the impact of balanced scorecard approach (BSC) on the organizational performance of Jordan Islamic Bank.

Hypotheses of the Study
H_{01}: Balanced Scorecard Approach has no significant impact on organizational performance in Jordan Kuwait Bank.
H_{a1}: Balanced Scorecard Approach has a significant impact on organizational performance in Jordan Kuwait Bank.
H_{02}: Balanced Scorecard Approach has no significant impact on organizational performance in Cairo Amman Bank.
H_{a2}: Balanced Scorecard Approach has a significant impact on organizational performance in Cairo Amman Bank.
H_{03}: Balanced Scorecard Approach has no significant impact on organizational performance in Arab Bank.
H_{a3}: Balanced Scorecard Approach has a significant impact on organizational performance in Arab Bank.
H_{04}: Balanced Scorecard Approach has no significant impact on organizational performance in Jordan Islamic Bank.
H_{a4}: Balanced Scorecard Approach has a significant impact on organizational performance in Jordan Islamic Bank.

Research Methodology
The research is based on both primary and secondary data. However, major emphasis is laid on primary data which is collected with the help of questionnaire designed on a five point Likert Scale from 304 employees

working in selected banks. Secondary data is collected from websites, journals, periodicals, magazines, and reports. The period of data collection is three months i.e. from January, 2017 to March, 2017. Simple random sampling is followed in the study. A total of 400 questionnaires were distributed to the executive cadre employees of selected banks wherein 96 questionnaires were rejected due to error and 304 have been finally selected for analysis. Hence, 304 is the sample size of the study. Multiple linear regression has been applied as the statistical tool to test the hypotheses.

Table 1: Sample Size

Banks Selected	Questionnaires			
	Distributed	**Rejected**	**Accepted**	**Sample Size**
Jordan Kuwait Bank	100	30	70	70
Cairo Amman Bank	100	25	75	75
Arab Bank	100	22	78	78
Jordan Islamic Bank	100	19	81	81
Total	**400**	**96**	**304**	**304**

Source: Primary Data

Fig.1: Sample Size of the Study
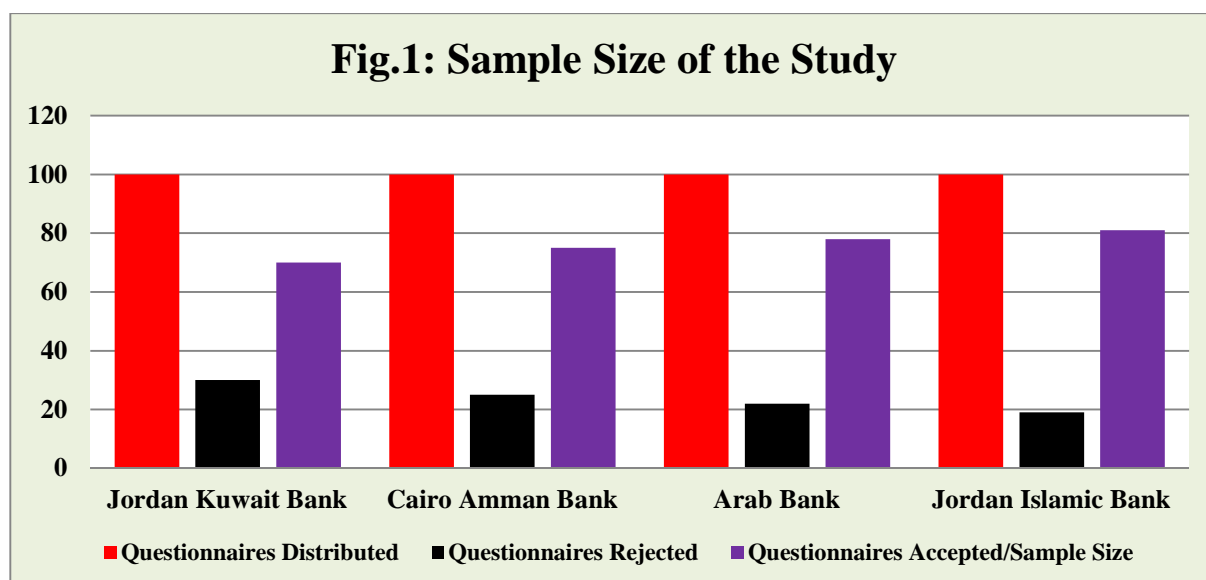
Hypotheses Testing

H_{01}: Balanced Scorecard Approach (BSC) has no significant impact on organizational performance in Jordan Kuwait Bank.

H_{a1}: Balanced Scorecard Approach (BSC) has a significant impact on organizational performance in Jordan Kuwait Bank.

Multiple linear regression has been used as the statistical tool to measure the impact of BSC on organizational performance of Jordan Kuwait Bank. The null hypothesis states that Balanced Scorecard Approach (BSC) has no significant impact on organizational performance in Jordan Kuwait Bank and the alternate states that Balanced Scorecard Approach (BSC) has a significant impact on organizational performance in Jordan Kuwait Bank.

Table 2: Regression Analysis-Jordan Kuwait Bank

Model	R	R Square	Adjusted R Square	Standard Error	Durbin Watson
1	0.901	0.811	0.801	2.0518	1.974

Table 2 shows the results of multiple linear regression analysis. The adjusted R square shows the amount of variation in one variable (organizational performance) that is accounted by another variable (BSC). The value of adjusted R square is 0.801 which means 80.1 percent variation in organizational performance is explained by BSC and the rest of the variation $(1-R^2)$ is an unexplained variation in organizational performance due to variables that has not been considered in this model.

Table 3: Regression Coefficients- Jordan Kuwait Bank

Model-1	Unstandardized Coefficients	Standard Error	t value	P Value
Customer Perspective	0.5041	1.668	-2.477	0.000
Internal Business Process Perspective	0.2915	2.167	11.456	0.001
Learning & Growth Perspective	0.3873	1.574	25.697	0.000
Financial Perspective	0.4468	1.078	16.608	0.0067
Dependent Variable: Organizational Performance				

Source: Output of SPSS_18

Table 3 shows the results of regression coefficients of Jordan Kuwait Bank. Organizational performance is dependent variable whereas Balanced Scorecard Approach (BSC) is independent variable. An unstandardized beta coefficient gives a measure of contribution of each variable to the model. A larger value indicates that a unit change in the predictor variable has a larger impact on the criterion variable. Firstly, the unstandardized beta coefficient of customer perspective is 0.5041 which is an indication of positive impact of customer perspective on organizational performance. The p value corresponding to customer perspective is less than 0.05 which shows that customer perspective has significant impact on organizational performance. Secondly, the unstandardized beta coefficient of internal business process perspective is 0.2915 which indicates that one unit change in internal business process perspective will bring 0.29 unit change in organizational performance. Further, its regression coefficient is statistically significant at 5% level of significance (P<0.05). Thirdly, the unstandardized beta coefficients of learning & growth perspective and financial perspective are also statistically significant at 5% level of significance (P<0.05). Therefore, the null hypothesis is rejected and it can be said that there is a significant impact of BSC on organizational performance in Jordan Kuwait Bank.

H_{02}: Balanced Scorecard Approach (BSC) has no significant impact on organizational performance in Cairo Amman Bank.
H_{a2}: Balanced Scorecard Approach (BSC) has a significant impact on organizational performance in Cairo Amman Bank.
Multiple linear regression has been used as the statistical tool to measure the impact of BSC on organizational performance of Cairo Amman Bank. The null hypothesis states that Balanced Scorecard Approach (BSC) has no significant impact on organizational performance in Cairo Amman Bank and the alternate states that Balanced Scorecard Approach (BSC) has a significant impact on organizational performance in Cairo Amman Bank.

Table 4: Regression Analysis-Cairo Amman Bank

Model	R	R Square	Adjusted R Square	Standard Error	Durbin Watson
2	0.875	0.765	0.754	1.8612	1.4482

Table 4 shows the results of multiple linear regression analysis. The adjusted R square shows the amount of variation in one variable (organizational performance) that is accounted by another variable (BSC). The value of adjusted R square is 0.754 which means 75.4 percent variation in organizational performance is explained by BSC and the rest of the variation $(1-R^2)$ is an unexplained variation in organizational performance due to variables that has not been considered in this model.

Table 5: Regression Coefficients- Cairo Amman Bank

Model-2	Unstandardized Coefficients	Standard Error	t value	P Value
Customer Perspective	0.3022	2.0414	15.741	0.0022
Internal Business Process Perspective	0.2509	1.9562	-2.404	0.000
Learning & Growth Perspective	0.3152	2.0974	13.864	0.0041
Financial Perspective	0.3647	1.0087	-3.369	0.000
Dependent Variable: Organizational Performance				

Source: Output of SPSS_18

Table 5 shows the results of regression coefficients of Cairo Amman Bank. Organizational performance is dependent variable whereas Balanced Scorecard Approach (BSC) is independent variable. An unstandardized beta coefficient gives a measure of contribution of each variable to the model. A larger value indicates that a unit change in the predictor variable has a larger impact on the criterion variable. Firstly, the unstandardized beta coefficient of customer perspective is 0.3022 which is an indication of positive impact of customer perspective on organizational performance. The p value corresponding to customer perspective is less than 0.05 which shows that customer perspective has significant impact on organizational performance. Secondly, the unstandardized beta coefficient of internal business process perspective is 0.2509 which indicates that one unit change in internal business process perspective will bring 0.25 unit change in organizational performance. Further, its regression coefficient is statistically significant at 5% level of significance (P<0.05). Thirdly, the unstandardized beta coefficients of learning & growth perspective and financial perspective are also statistically significant at 5% level of significance (P<0.05). Therefore, the null hypothesis is rejected and it can be said that there is a significant impact of BSC on organizational performance in Cairo Amman Bank.

H_{03}: Balanced Scorecard Approach (BSC) has no significant impact on organizational performance in Arab Bank.
H_{a3}: Balanced Scorecard Approach (BSC) has a significant impact on organizational performance in Arab Bank.
Multiple linear regression has been used as the statistical tool to measure the impact of BSC on organizational performance of Arab Bank. The null hypothesis states that Balanced Scorecard Approach (BSC) has no significant impact on organizational performance in Arab Bank and the alternate states that Balanced Scorecard Approach (BSC) has a significant impact on organizational performance in Arab Bank.

Table 6: Regression Analysis-Arab Bank

Model	R	R Square	Adjusted R Square	Standard Error	Durbin Watson
3	0.835	0.697	0.688	1.5894	1.9452

Table 6 shows the results of multiple linear regression analysis. The adjusted R square shows the amount of variation in one variable (organizational performance) that is accounted by another variable (BSC). The value of adjusted R square is 0.688 which means 68.8 percent variation in organizational performance is explained by BSC and the rest of the variation $(1-R^2)$ is an unexplained variation in organizational performance due to variables that has not been considered in this model.

Table 7: Regression Coefficients- Arab Bank

Model-3	Unstandardized Coefficients	Standard Error	t value	P Value
Customer Perspective	0.3341	1.0412	33.964	0.006
Internal Business Process Perspective	0.3077	1.6942	-2.856	0.000
Learning & Growth Perspective	0.2564	1.4505	-7.784	0.0055
Financial Perspective	0.4125	2.0684	25.859	0.000
Dependent Variable: Organizational Performance				

Source: Output of SPSS_18

Table 7 shows the results of regression coefficients of Arab Bank. Organizational performance is dependent variable whereas Balanced Scorecard Approach (BSC) is independent variable. An unstandardized beta coefficient gives a measure of contribution of each variable to the model. A larger value indicates that a unit change in the predictor variable has a larger impact on the criterion variable. Firstly, the unstandardized beta coefficient of customer perspective is 0.3341which is an indication of positive impact of customer perspective on organizational performance. The p value corresponding to customer perspective is less than 0.05 which shows that customer perspective has significant impact on organizational performance. Secondly, the unstandardized beta coefficient of internal business process perspective is 0.3077 which indicates that one unit change in internal business process perspective will bring 0.30 unit change in organizational performance. Further, its regression coefficient is statistically significant at 5% level of significance ($P<0.05$). Thirdly, the unstandardized beta coefficients of learning & growth perspective and financial perspective are also statistically significant at 5% level of significance ($P<0.05$). Therefore, the null hypothesis is rejected and it can be said that there is a significant impact of BSC on organizational performance in Arab Bank.

H_{04}: Balanced Scorecard Approach (BSC) has no significant impact on organizational performance in Jordan Islamic Bank.
H_{a4}: Balanced Scorecard Approach (BSC) has a significant impact on organizational performance in Jordan Islamic Bank.
Multiple linear regression has been used as the statistical tool to measure the impact of BSC on organizational performance of Jordan Islamic Bank. The null hypothesis states that Balanced Scorecard Approach (BSC) has no significant impact on organizational performance in Jordan Islamic Bank and the alternate states that Balanced Scorecard Approach (BSC) has a significant impact on organizational performance in Jordan Islamic Bank.

Table 8: Regression Analysis-Jordan Islamic Bank

Model	R	R Square	Adjusted R Square	Standard Error	Durbin Watson
4	0.893	0.746	0.734	1.2185	1.0044

Table 8 shows the results of multiple linear regression analysis. The adjusted R square shows the amount of variation in one variable (organizational performance) that is accounted by another variable (BSC). The value of adjusted R square is 0.734 which means 73.4 percent variation in organizational performance is explained by BSC and the rest of the variation ($1-R^2$) is an unexplained variation in organizational performance due to variables that has not been considered in this model.

Table 9: Regression Coefficients- Jordan Islamic Bank

Model-4	Unstandardized Coefficients	Standard Error	t value	P Value
Customer Perspective	0.1987	1.5692	-6.687	0.000
Internal Business Process Perspective	0.2606	1.7485	11.748	0.000
Learning & Growth Perspective	0.3073	1.6933	29.784	0.008
Financial Perspective	0.3674	1.5878	-1.745	0.000
Dependent Variable: Organizational Performance				

Source: Output of SPSS_18

Table 9 shows the results of regression coefficients of Jordan Islamic Bank. Organizational performance is dependent variable whereas Balanced Scorecard Approach (BSC) is independent variable. An unstandardized beta coefficient gives a measure of contribution of each variable to the model. A larger value indicates that a unit change in the predictor variable has a larger impact on the criterion variable. Firstly, the unstandardized beta coefficient of customer perspective is 0.1987 which is an indication of positive impact of customer perspective on organizational performance. The p value corresponding to customer perspective is less than 0.05 which shows that customer perspective has significant impact on organizational performance. Secondly, the unstandardized beta coefficient of internal business process perspective is 0.2606 which indicates that one unit change in internal business process perspective will bring 0.26 unit change in organizational performance. Further, its regression coefficient is statistically significant at 5% level of significance ($P<0.05$). Thirdly, the unstandardized beta coefficients of learning & growth perspective and financial perspective are also statistically significant at 5% level of significance ($P<0.05$). Therefore, the null hypothesis is rejected and it can be said that there is a significant impact of BSC on organizational performance in Jordan Islamic Bank.

Conclusion

BSC is a framework which translates an organization's vision and strategy into a coherent set of performance measures. It helps business to evaluate how well they meet their objectives. The BSC is a performance measurement system using a multi-dimensional scorecard to translate strategy into a balance of financial and non-financial performance measures. BSC is a combination of non-financial and financial measures developed to meet the shortcomings of traditional management control and performance measurement systems. BSC incorporates financial performance measures with non-financial performance measures in areas such as involving customers, internal processes and learning and growth. It explains how the BSC is a system that converts value drivers of the organization into metrics to evaluate strategic goal achievement. The present research has been conducted to examine the impact of balanced scorecard approach on the organizational performance of selected Jordanian banks. Jordan Kuwait Bank, Cairo Amman Bank, Arab Bank, and Jordan Islamic Bank were the banks that have been selected by the researcher in the study. It is based on both primary and secondary data. Primary data was collected with the help of questionnaire designed on a five point Likert Scale from 304 employees working in selected banks. The period of data collection was three months i.e. from January, 2017 to March, 2017. Multiple linear regression has been applied as the statistical tool to test the hypotheses. The findings of the research highlighted that there is a significant impact of BSC on the organizational performance in banks under study.

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