Abstract

Balanced Scorecard Approach to Human Resource Management: A study of Select Universities

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Introduction

Human resources play an important role in development and growth of any organization and for that matter of any economy. Among all the factors of production only human resources are living being and have unlimited capacity and potentials. Such capacity and potentials of human beings can be developed for the benefit of organization by applying proper strategies. More effective management of human resources (HR) increasingly is being seen as positively affecting performance in organizations, both large and small. It is evident that the transition of HR management has enhanced organizational competitiveness and success. There are different approaches of Human Resource Management and Balance Scorecard is one of the important approaches of evaluation of an organization. (Berg, 1950)

The BSC provides executives with a comprehensive framework that translates a company's vision and strategy into a coherent set of performance measures. BSC translates mission and strategy into objectives and measures, organized into four different perspectives; financial, customer, internal business process, and learning and growth. The scorecard provides a framework, a language, to communicate mission and strategy; it uses measurement to inform employees about the drivers of current and future success. A lot of people think of measurement as a tool to control behavior.
and to evaluate past performance. However the BSC should be used in a different way – to articulate the strategy of the business, to communicate the strategy of the business, and to help align individual, organizational, and cross-departmental initiatives to achieve a common goal. The BSC should be used as a communication, informing, and learning system, not a controlling system. (Kaplan & Norton, 1996)

University is basically responsible for conducting researches and studies at all fields of life and domains of knowledge. University also has an important role in the field of public service in society by offering practical services to society on the part of teaching staff and students, utilizing its various facilities. The most prominent problems which face Jordanian society are: firstly, the continuous cultural and ideological modernization coming from the West and the Palestinians of conflict among three ideologies: Islamic, communist and capital, secondly, the continuous scientific and technologies challenge coming from the west and the east and the needs of the Jordanian society for the different experiences and skills of advanced societies. In this way, the west and the east control the offering of advanced appliances and industries to Jordan according to certain conditions, thirdly, the occurrence of social, economic and political problems resulting from the rapid progress accompanied by an imbalance between the values and aims imposed by the material progress and the host of values and aims polarized the interaction of the ideological heritage and society needs, and fourthly, the development of new intellectual and faith currents within Jordanian society, one of them tries to assert the identity of the Arab-Islamic society, and the other tries to borrow
the western or Eastern solutions resulting from the material progress. Each of them has its philosophy which supports its positions and manner of treatment.

**Research problems**

In light of the above discussed information gap, the purpose of this thesis is to determine the impact a Balanced Scorecard Decision Support System can have on the success rate of a Balanced Scorecard implementation and work. For this researcher will answer the following research question:

- How can the utilization of a BSC model increases the success rate of the Balanced Scorecard implementation in HRM?
- Are universities aware of their strategic responsibilities?
- Are universities managing the financial risks or not?
- How is HRM helping universities position themselves to meet the needs of external customers that are students?
- Do the universities have the talent to be successful in the future?
- Is the HR system providing the university with the employee competencies and behavior necessary to achieve overall objectives?
- Whether the internal processing of different procedural work takes much time in completion in government universities than private universities or not?
- Whether the employees are satisfied or not regarding their promotion as well as their remuneration in government universities?
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- How is HRM helping universities position themselves to meet the needs of external customers that are students?

- Are universities aware of their strategic responsibilities?

- Are universities managing their financial resources or not?

- Why are private universities known for their efficiencies as compared to the government universities of Jordan?

- What is the status of performance evaluation of the employees and teachers of the universities of Jordan in the government and private universities?

Research Gap

After thoroughly going through different research works, articles, papers and journals based on Balance Score card approach of Human Resource Management and its implementation in different organisation, The researcher found that a lot of work has been done in regard to the Balance Score card approach of Human resource management in different kind of organisations in different part of the world including USA, UK, Germany, Japan, China, India, Indonesia etc. This approach has been used in different types of organizations in different countries to bring overall efficiency in the working of the organizations.

The researcher came to the conclusion that so far no any work has been under taken in Jordan in regard to make a comparative study of government and Private universities of Jordan as far as implementation of Balance Score Card approach is concerned. So, researcher has confined his work to study
the Balance Score Card approach of Human resource management in selected government and Private universities of Jordan. In this regard two of the government and same number of private universities are selected on the basis of convenience of the researcher to carry out the task.

Objectives of the Study:

• The basic objective of this study is to throw light on the evolution, concept, uses and implementation of the Balanced Scorecard Approach to Human Resource Management.

• To identify the targets and goals against which the universities measure their performance. This includes measures like employee's satisfaction, employee's retention, student's satisfaction, competitive market share, etc.

• To identify the way to make the internal business processes efficient to make universities better.

• To make a comparative analysis of the performances of the staff including teaching as well as non teaching employees of government and private universities of Jordan.

• To highlight different measures required in motivating teaching and non teaching staff members to deliver their best for the welfare of the university.

• To identify and analyze the driving factors behind the implementation of the BSC and what are major problems in its implementation?
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- To analyze whether design of the Balanced Score Card (BSC) reflects the resources of a university which provides competitive advantage?

- To analyze whether universities use the resource-related BSC information in their decision-making activities or not?

- To analyze whether there is a positive relationship between universities’ use of the resource-related BSC information and their perceived performance in Jordan?

**Hypotheses of the Study:** To undertake the study of the various aspects of balance score card of private and public universities of Jordanian universities, the following hypotheses are assumed:

Null hypothesis $H_{0-1}$: There is no significant difference between the public and private universities of Jordan in terms of Balanced Score Card (BSC).

Further this hypothesis is tested from the four different perspectives of Balanced Score Card like Financial, internal process, customers and Human resources.

Null hypothesis $H_{0-1A}$: There is no significant difference between the public and private universities of Jordan in terms of General perspective of Balanced Score Card.

Null hypothesis $H_{0-1B}$: There is no significant difference between the public and private universities of Jordan in terms of Financial Perspective.

Null hypothesis $H_{0-1C}$: There is no significant difference between the public and private universities of Jordan in terms of Internal Process Perspective.
Null hypothesis $H_{o-1\ D}$: There is no significant difference between the public and private universities of Jordan in terms of Human Resources Perspective.

Null hypothesis $H_{o-2}$: There is no significant difference in the perception of academicians and non-academicians towards Balanced Score Card. Further, this hypothesis is tested from the four different perspectives of Balanced Score Card like Financial, internal process, customers and Human resources.

Null hypothesis $H_{o-2\ A}$: There is no significant difference in the perception of academicians and non-academicians towards General Perspectives.

Null hypothesis $H_{o-2\ B}$: There is no significant difference in the perception of academicians and non-academicians towards Financial Perspectives.

Null hypothesis $H_{o-2\ C}$: There is no significant difference in the perception of academicians and non-academicians towards Internal Process Perspectives.

Null hypothesis $H_{o-2\ D}$: There is no significant difference in the perception of academicians and non-academicians towards Human Resource Perspectives.

Null hypothesis $H_{o-3}$: There is no significant difference in the perception towards Balanced Score Card on the basis of gender. Further, the significant difference of this hypothesis is tested from the four different perspectives of Balanced Score Card like Financial, internal process, customers and Human resources.

Null hypothesis $H_{o-3\ A}$: There is no significant difference in the perception towards Balanced Score Card on the basis of General Perspectives.
Null hypothesis $H_0$-3 B: There is no significant difference in the perception towards Balanced Score Card on the basis of Financial Perspectives.

Null hypothesis $H_0$-3 C: There is no significant difference in the perception towards Balanced Score Card on the basis of Internal Process Perspectives.

Null hypothesis $H_0$-3 D: There is no significant difference in the perception towards Balanced Score Card on the basis of Human Resources Perspectives.

Null hypothesis $H_0$-4: There is no significant difference on the basis of experience towards Balanced Score Card.

Further, this hypothesis is tested from the four different perspectives of Balanced Score Card like general, financial, internal process, and Human resources.

Null hypothesis $H_0$-4 A: There is no significant difference on the basis of experience towards General Perspectives.

Null hypothesis $H_0$-4 B: There is no significant difference on the basis of experience towards Financial Perspectives.

Null hypothesis $H_0$-4 C: There is no significant difference on the basis of experience towards Internal Process Perspectives.

Null hypothesis $H_0$-4 D: There is no significant difference on the basis of experience towards Human Resources Perspectives.

Null hypothesis $H_0$-5: There is no significant association between the Average life cycle of facilities and equipments offered in the universities of Public and Private sector.
Null hypothesis $H_0$-6: There is no significant association between the average life cycle of facilities and equipments offered in the universities and the sector to which they belong.

Null hypothesis $H_0$-7: There is no significant association between average number of papers by academic staff published in a year in the universities and the sector to which they belong.

Null hypothesis $H_0$-8: There is no significant association between the percentages of International students enrolled in comparison to total number of students in the universities and the sector to which they belong.

Null hypothesis $H_0$-9: There is no significant association between Conferences/ Seminars/ Workshops organized in a year in the universities and the sector to which they belong.

Null hypothesis $H_0$-10: There is no significant association between the average number of papers by academic staff published in ISI journals in a year in the universities and the sector to which they belong.

Null hypothesis $H_0$-11: There is no significant association between average number of papers by academic staff published in refereed research journals in a year in the universities and the sector to which they belong.

Null hypothesis $H_0$-12: There is no significant association between the number of online programs offered in the universities and the sector to which they belong.

Null hypothesis $H_0$-13: There is no significant association in regard to communication of the implementation of the performance measurement system to the employees of the universities of Public and Private sector.
Null hypothesis $H_0-14$: There is no significant association in regard to deficiencies of performance measurement system in the universities of Public and Private sector.

Null hypothesis $H_0-15$: There is no significant association between academician and non-academician in regard to average number of papers by academic staff published in a year in the universities of Public and Private sector.

Null hypothesis $H_0-16$: There is no significant association between academician and non-academician in regard to average number of papers by academic staff published in refereed research journals per year in the universities of Public and Private sector.

Null hypothesis $H_0-17$: There is no significant association between academician and non-academician in regard to number of online programs offered in the universities of Public and Private sector.

**Research Design**

Keeping in view the objectives of the research study, the researcher used a descriptive research design.

**Sources of Data**

The data which constitute the raw material for carrying out the present work have been obtained from a number of sources. The primary and secondary data were collected using the respective sources.

To carry out the undertaken research work, the researcher has heavily relied on primary data by preparing the questionnaire to collect the information from the teaching and non-teaching staff of the government and private universities of Jordan. Different set of questions were prepared to get the required
information from all the segment of the universities like satisfaction level, internal processes, incentives, motivation and facilities in different universities. For collecting primary data, the researcher carried out a pilot survey before conducting the main survey. The pilot study helped to ensure the control of non-sampling error. Primary data was collected, from a sample of 30 academic staff and 30 non-academic staff for pilot study and 288 respondents for main study, from two public and two private universities of Jordan.

Target population

Target population for the purpose of this study is defined as all the academic and non-academic staff two public and two private universities of Jordan.

Sampling units

A two stage sampling was adopted. The first stage sampling units were the four universities of Jordan. The second stage sampling units were individual employees in the academic and non-academic section of the universities.

Selection of the sample

Four universities, two governments and two private, universities of Jordan had been sampled. "For most purposes n=30 is sufficient, provided the universe is not exceedingly asymmetrical" (Boyd et. al., 2005). 100 is a medium sized sample and 400 is a larger sample (Boyd et. al., 2005). More than 5% sample size is an appreciable proportion of the sample universe (Boyd et. al., 2005). Estimated population (academic and non-academic staff) of the four universities is not more than 5000. Thus, a minimum sample size of 100 was decided for each plant. This makes 4x100=400 as the total minimum sample size, which is a large sample. This research used convenience sampling and sampled a group of people readily available to the researcher at the time of sampling. This was done as the entire list of the population was not available to the researcher. Hence, random sampling technique could not be employed by the researcher. A quota system was used to select at least 100 employees.
from each university and to select approximately equal number of employees from the academic and non-academic groups respectively.

4.9.5 Research instrument

The process of selection of the research instrument, its reliability & validity and the data analysis process leading to the research findings is discussed subsequently.

Since no standard questionnaire was available, a questionnaire has been designed to carry out this study. After a detailed literature review constructs were identified to study the problem and to develop the questionnaire. Further discussions were carried out with subject experts to crystallize the constructs. These constructs were used to prepare the questionnaire. The questionnaire is divided into two parts. Part A has close ended questions related to general, financial, internal process, and HR perspectives on a Likert scale. The type of questions that was used in this investigation was close ended questions. These types of questions offer advantage. These types of questions force the respondents to choose the response from a number of possible replies. By restricting the answer set, it is easy to calculate statistical data over the whole group or subgroup of participants.

Part B has questions related to academic aspects and demographic variables. The first draft of the questionnaire had 45 close ended questions in part A and 11 questions in part B. At the time of the pilot study, there were 45 items. The items were related to different perspectives- General Perspective, Financial Perspective, Internal Process Perspective and Human Resource Perspective. With the help of factor analysis, the internal validity of the instrument was checked. Items having low factor loadings were removed from the final draft of the instrument. As a result, 45 items were reduced to 30 items. The instrument is Likert response scale to measure responses on an interval of 1 to 5 rating from strongly disagree to strongly agree.

The first draft of the questionnaire was set in English and it was used for pilot testing. During the pilot testing the need was felt to have questionnaire in
Arabic also, as many non-academicians and some academicians were not very much comfortable in giving responses in English. After this, the questionnaire was translated into Arabic and for final data collection both the sets were provided to the respondents.

**Reliability and Validity of the Instrument**

The instrument used in this research has been developed since no standard questionnaire was available on the particular area of research. Thus before conducting final study, the validity, reliability and generalisation of the instrument has been tested and approved. Thus, the instrument was validated to apply to the Jordanian universities. Measures of variables should have validity and reliability (Cronbach, 1971: Nunally, 1978) in order to draw valid references from the research.

**Instrument Validity**

Exploratory Factor Analysis (EFA) was performed on the scale to check whether all items load on a single construct. To determine if data are likely to factor well, before proceeding with EFA, Kaiser-Meyer-Olkin (KMO) Measure of sampling adequacy and Bartlett's Tests of Sphericity were performed. If KMO is found to be greater than 0.50, then one can proceed with factor analysis (Malhotra, 2005). The KMO values was .836, signaling that data was suitable for factor analysis.

Bartlett's Test of Sphericity measures the presence of correlations among the variables. It provides the statistic probability that the correlation matrix has significant correlation among at least some of variables. Thus, a significant Bartlett's Test of Sphericity is required (Malhotra, 2005). Because $p=0.000$ (its associative probability is less than $0.05$) for the scale, we could proceed with factor analysis.

The variance explained by the initial solution, and extracted components for each of the factors are taken out. Some items (seventeen items) showing the loading lower than 0.4 are removed from further calculations- F2, F4,IP3,IP6, IP8, IP11, H1, H5, H6, H8, H10, H13, H14, H17, H20, H23, and
H24. After removing these items, the remaining items were recorded in ascending order for each construct.

Instrument Reliability

All of the Cronbach Alpha's exceeded limit of 0.7 and therefore suggest that the four constructs in the scale demonstrate acceptable reliability for survey of Jordanian universities.

Summarized results of Tested Hypotheses: Further, the tested hypotheses are summarized in the following table:

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Accepted/Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Null hypothesis ( H_0 - 1 ):</strong> There is no significant difference between the public and private universities of Jordan in terms of Balance Score Card (BSC).</td>
<td>Rejected</td>
</tr>
<tr>
<td><strong>Null hypothesis ( H_0 - 1 A ):</strong> There is no significant difference between the public and private universities of Jordan in terms of General perspectives of Balance Score Card (BSC).</td>
<td>Accepted</td>
</tr>
<tr>
<td><strong>Null hypothesis ( H_0 - 1 B ):</strong> There is no significant difference between the public and private universities of Jordan in terms of Financial Perspectives.</td>
<td>Accepted</td>
</tr>
<tr>
<td><strong>Null hypothesis ( H_0 - 1 C ):</strong> There is no significant difference between the public and private universities of Jordan in terms of Internal Process Perspectives.</td>
<td>Rejected</td>
</tr>
<tr>
<td><strong>Null hypothesis ( H_0 - 1 D ):</strong> There is no significant difference between the public and private universities of Jordan in terms of</td>
<td>Rejected</td>
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</tbody>
</table>
Human Resources Perspectives.

<table>
<thead>
<tr>
<th>Null hypothesis H₀-2: There is no significant difference between the academician and non-academician in terms of Balance Score Card (BSC).</th>
<th>Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null hypothesis H₀-2 A: There is no significant difference between the academician and non-academician in terms of General Perspectives.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Null hypothesis H₀-2 B: There is no significant difference between the academician and non-academician in terms of Financial Perspectives.</td>
<td>Rejected</td>
</tr>
<tr>
<td>Null hypothesis H₀-2 C: There is no significant difference between the academician and non-academician in terms of Internal Process Perspectives.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Null hypothesis H₀-2 D: There is no significant difference between the academician and non-academician in terms of Human Resource Perspectives.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Null hypothesis H₀-3: There is no significant difference between the Male and Female in terms of Balance Score Card.</td>
<td>Rejected</td>
</tr>
<tr>
<td>Null hypothesis H₀-3 A: There is no significant difference between the Male and Female in terms of General Perspectives.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Null hypothesis H₀-3 B: There is no significant difference between the Male and Female in terms of Financial Perspectives.</td>
<td>Accepted</td>
</tr>
<tr>
<td>Null hypothesis H₀-3 C: There is no significant difference</td>
<td>Accepted</td>
</tr>
</tbody>
</table>
between the Male and Female in terms of Internal Process Perspectives.

**Null hypothesis Ho-3 D:** There is no significant difference between the Male and Female in terms of Human Resources Perspectives.

**Null hypothesis Ho-4:** There is no significant difference among the experience at present designation in terms of Balance Score Card.

**Null hypothesis Ho-4 A:** There is no significant difference among the experience at present designation in terms of General Perspectives.

**Null hypothesis Ho-4 B:** There is no significant difference among the experience at present designation in terms of Financial Perspectives.

**Null hypothesis Ho-4 C:** There is no significant difference among the experience at present designation in terms of Internal Process Perspectives.

**Null hypothesis Ho-4 D:** There is no significant difference among the experience at present designation in terms of Human Resources Perspectives.

**Null hypothesis Ho-5:** There is no significant association between the financial policy of universities and the sector to which they belong.

**Null hypothesis Ho-6:** There is no significant association between the Average life cycle of facilities and equipments offered in the universities the sector to which they belong.

**Null hypothesis Ho-7:** There is no significant association
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between averages numbers of papers by academic staff published in a year in the universities the sector to which they belong.

**Null hypothesis Ho-8:** There is no significant association between the percentages of International students enrolled in comparison to total number of students in the universities the sector to which they belong.  
**Rejected**

**Null hypothesis Ho-9:** There is no significant association between the numbers of Conferences/ Seminars/ Workshops organized in a year in the universities the sector to which they belong.  
**Accepted**

**Null hypothesis Ho-10:** There is no significant association between the average numbers of papers by academic staff published in ISI journals in a year in the universities the sector to which they belong.  
**Accepted**

**Null hypothesis Ho-11:** There is no significant association between the average numbers of papers by academic staff published in refereed research journals in a year in the universities the sector to which they belong.  
**Accepted**

**Null hypothesis Ho-12:** There is no significant association between the numbers of online programs offered in the universities the sector to which they belong.  
**Rejected**

**Null hypothesis Ho-13:** There is no significant association between the communications of the implementation of the performance measurement system to the employees of the universities the sector to which they belong.  
**Accepted**

**Null hypothesis Ho-14:** There is no significant association between the deficiencies of performance measurement system in the universities the sector to which they belong.  
**Rejected**
Abstract

<table>
<thead>
<tr>
<th>Null hypothesis Ho-15:</th>
<th>Accepted</th>
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<tbody>
<tr>
<td>There is no significant association between academician and non-academician in regard to average number of papers by academic staff published in a year in the universities the sector to which they belong.</td>
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<th>Null hypothesis Ho-16:</th>
<th>Accepted</th>
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<tbody>
<tr>
<td>There is no significant association between academician and non-academician in regard to average number of papers by academic staff published in refereed research journals per year in the universities the sector to which they belong.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Null hypothesis Ho-17:</th>
<th>Accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no significant association between academician and non-academician in regard to number of online programs offered in the universities the sector to which they belong.</td>
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</tbody>
</table>

Findings of the Study

After a comprehensive study of public and private sector universities in Jordan with the help of information obtained through questionnaires, the followings are the findings of this research work:

- Most of the students and staff members are not satisfied with the working of the Government universities due to the less caring attitude of the government. On the other hand most of the students and staff members are satisfied with the facilities and infrastructure provided by the private universities of Jordan though the private universities are comparatively costly for the students.
• The internal processing of different procedural work is taking so much time to completion in Government universities. On the other hand private universities of Jordan having better processing thus giving more satisfaction to theirs students and staff members.

• Employees are not satisfied regarding their promotion as well as their remuneration in Government universities.

• In government universities, there is little consideration given to vision/mission of the universities. Thus, the financial budgets of the department/university are not linked to the department/university’s qualitative performance.

• Private sector universities in Jordan are financially sound as compared to Government universities. There is lot of procedural delay in sanctioning the fund to the specific need in the government universities. Thus, the private universities are known for their efficiencies as compared to the Government universities of Jordan.

• The available facilities of the private sector universities in Jordan are better than that of Government universities like latest books, journals, magazines, communication system, adopting modern means of teaching, Electronic mail (e-mail), voice mail, the web, or other technology, human resources information system, training etc.

• There is no performance evaluation of the employees and teachers in government universities. On the other hand, in private sector universities, the management is so much concerned with the quality education by
adopting the performance evaluation method to give incentives to hard working staff members.

- The Government universities in Jordan are providing better opportunities to develop or improve the skills than that of private sector universities by offering faculty development programs, orientation/ refresher courses in academic staff colleges at reasonable cost and by providing the leave facilities. On the other hand such kinds of facilities are missing in private universities of Jordan.

- There is no significant difference between the academician and non-academician of public and private universities of Jordan in terms of General Perspectives, Financial Perspectives, Internal Process Perspectives and Human Resource Perspectives of Balance Score Card (BSC).

- There is no significant difference between the Male and Female of public and private universities of Jordan in terms of General Perspectives, Financial Perspectives, Internal Process Perspectives and Human Resource Perspectives of Balance Score Card.

- There is significant difference among the experience at present designation of public and private universities of Jordan in terms of Internal Process Perspectives and Human Resource Perspectives of Balance Score Card but found to be significant difference in regard to General Perspectives and Financial Perspectives of Balance Score Card.
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- There is significant association between the financial policy of universities, Average life cycle of facilities and equipments offered average number of papers by academic staff published in a year, percentages of International students enrolled in comparison to total number of students, deficiencies of performance measurement system in the Public and Private sector universities of Jordan. But there is no significant association between Conferences/ Seminars/ Workshops organized in a year, average number of papers by academic staff published in ISI journals, average number of papers by academic staff published in refereed research journals, managerial accounting indicators used in order to assist the University’s assessment of customer (students) satisfaction policy, number of online programs offered and communication of the implementation of the performance measurement system to the employees in a year in the universities of Public and Private sector of Jordan.

- The employees have better preference to work in the Government University than private universities of Jordan due to the better remuneration and retirement benefits.

Conclusions

The present research on the comparative study of Balance Score card in government and private universities of Jordan explored many issues in line with the objectives set for the study. The present study has focused on many dimensions of balance score card in the education system of Jordan. On the basis of primary data, a number of aspects of balance score card were
analyzed. But still I feel that a multi directional expansion with focus on related areas is possible. In the context of limitations of the study, and the experience gained during the study, some of the potential areas are identified for future researches. Potential areas for research have been identified. On the basis of collected information with the help of questionnaires, the data have been tested by using suitable statistical tools. The hypotheses which have been accepted or rejected have also been summerised in the form of the table. The summary of conclusions, findings and recommendations etc. have been given in the next chapter along with the scope for further research in this field.