

# The Relationship between Profitability and Employee Training and Development: Evidence from Jordanian Industrial Companies

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## ABSTRACT

In order to show the effect of training and employee development on and profitability in the industrial companies in Jordan, The study comes to examine the relationship between profitability and employee training and employee development in the industrial companies in Jordan during the period (2000- 2004).

The sample of the study represents a group of (30) industrial companies in Jordan. The overall data related to the study sample were collected from several sources including the financial statements of the industrial companies, in addition to the Jordanian Central bank and Amman financial market (monthly and annually) bulletins.

The suggested model has been tested by using the multiple regression techniques. The analysis revealed that there is a significant relationship existed between profitability and employee training and employee development in Jordanian Industrial Companies

The study suggested some results and recommendations which might lead to enhance and develop the role of industrial companies in national economy.

These recommendations represented by greater efforts are required for training employees so as to develop their abilities to be innovative and creative, developing skills of subordinates and managers, meeting customer's needs and maximizing the use of new technology.

**Keywords:** Profitability, Strategy Implementation, Strategy Formulation, Training, Development, Industrial Companies.

## 1. INTRODUCTION

This study concentrates on the training and employee development because these variables more effectively play an important role in increasing productivity and profitability. There are four approaches used for the training and employee development. These approaches are: Education, Assessment, Job experiences and behaviors that are strengthened by each development method.

Many studies have been conducted in order to identify the effect of the employee training and employee development on the profitability in the industrial companies.

Some of the them have examined the relationship

between profitability and employee training and employee development (Diraniyyeh, 1992), Demirgüç-Kunt and Huizinga, 1999; Cavallo and Majnoni, 2001; Laeven and Majnoni, 2003; Ben Naceur, 2003; John Goddard *et al.* 2004; Jackson, 2005; Panayiotis P. Athanasoglou *et al.*, 2006.

So, to be successful companies it must be ensure that the employees have the appropriate skills to work in teams, with new technology, in international setting.

The goal of employee training is to help the companies to gain a competitive advantages and how the training efforts to master the specific knowledge, skill or ability emphasized in a specific training program and to apply it in their day- to- day activities. However, for companies that use high leverage training to gain competitive advantages. Training can also help to create a learning organization.

A learning organization is one whose employees are continuously attempting to learn new things and apply what they learn to improve product or service quality.

And so, this study attempts to find the relationship between profitability and employee training and

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employee development in the industrial companies in Jordan during the period 2000-2004. Thirty industrial companies are included as a study sample. (Appendix 1)

### Objectives of the study

The objective of this study is to examine the relationship between profitability and employee training and employee development in the industrial companies in Jordan during the period 2000-2004. Profitability represents dependent variable and employee training and employee development represent independent variables based on previous studies, such as Demirgüç-Kunt and Huizinga (1999), Cavallo and Majnoni (2001), Laeven and Majnoni (2003), Ben Naceur (2003), Davis and Halbin, (2004), Davis and Zhu (2005), and K. Husni and A. Mohammed. (2005).

## 2. IMPORTANCE OF THE STUDY

The importance of this study return to ill the effect of the employee training and employee development on the profitability in the industrial companies in Jordan during the period 2000-2004. Moreover, the empirical literature emphasizes on the importance of the developing human resources (employee training and employee development) in the Jordanian industrial companies because it is play an importance role in increasing profitability.

There are additional reasons for importance of the study, these reasons are:

- Most studies which recording on the profitability in the industrial companies to date are based on Evidence From developed countries, such as, John Goddard and *et al.* (2004), (and Panayiotis P. Athanasoglou and *et al.* (2006).
- There are few studies that provide Evidence from developing countries, such as, Ben Naceur (2003),
- This study attempts to reduce the gap by analyzing the relationship between profitability and employee

training Evidence from Jordan.

Finally, this study differs from previous studies, because to date. There are no existing published studies that investigate the relationship between profitability and producing and employee training Evidence from Jordan.

Therefore, I believe the final results of this study could be very important for Jordanian Industrial Companies.

## 3. PROBLEM OF THE STUDY

The problem of this study can be expressed in the form of the following question:

What are the affects of the employee training and employee development on the profitability in the industrial companies? Or How does the employee training and employee development in the Jordanian industrial companies play an important role in increasing of the profitability in the industrial companies? To sum up, this study is organized as follows:

The first section provides some basic information about the industrial sectors in Jordan.

The second section is designed to establish the theoretical framework and the literature review.

The third section presents the data being collected, and the research methodology through analyzing the financial variables.

The fourth section presents the findings of the study. And the last section covers the most important results and recommendations of the study.

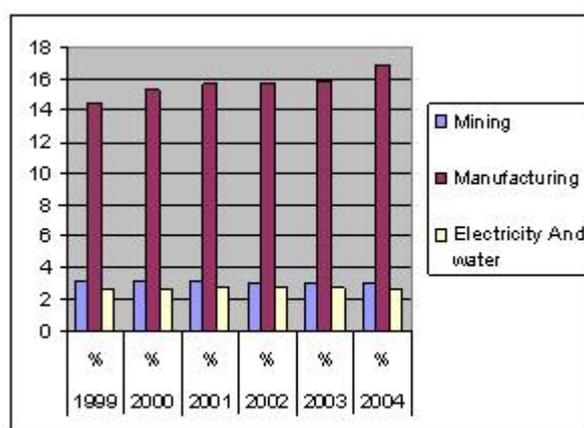
### Assessment of Jordanian Industrial Sector Development

Industrial sector is one of the vital economic sectors, which are attractive to investors. The industrial sector in Jordan contributes around 24 % from Gross Domestic Product (GDP). Table (1) Shows the importance of industrial sector from Gross Domestic Product (GDP).

**Table 1. The Importance of Industrial Sector from Gross Domestic Product (GDP) at Fixed Price for Years 1999- 2004.**

| Industries            | Years | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|-----------------------|-------|------|------|------|------|------|------|
|                       |       | %    | %    | %    | %    | %    | %    |
| Mining                |       | 3.2  | 3.2  | 3.2  | 3    | 3    | 3    |
| Manufacturing         |       | 14.5 | 15.3 | 15.7 | 15.8 | 15.9 | 16.8 |
| Electricity and Water |       | 2.6  | 2.6  | 2.7  | 2.7  | 2.7  | 2.6  |

Source: Central Bank of Jordan, vol.40, 2, 2004.



**Figure1. The Importance of Industrial Sector from Gross Domestic Product (GDP) at Fixed Price for Years 1999- 2004.**

**Table 2. The importance of industrial sector from Gross Domestic Product (GDP) at fixed price for years (2001-2004).**

| Industries            | Years | 2001 | 2002 | 2003 | 2004 |
|-----------------------|-------|------|------|------|------|
|                       |       | %    | %    | %    | %    |
| Mining and Quarrying  |       | 5.6  | 14.1 | -2.7 | -4.2 |
| Manufacturing         |       | 8.4  | 19.3 | 2.8  | 16.4 |
| Electricity And Water |       | 6    | 8    | 3.8  | 13.1 |
| Construction          |       | 12.5 | 8.8  | 0.1  | 12.3 |

Source: Central Bank of Jordan, annual report, 2004.

There was a marked improvement in the industrial sector's performance in 2004 compared to that in 2003. The real value added of its two components, "mining and quarrying" and manufacturing, grew by 13.6% against a growth of 2.1% in 2003. Thus, the sector's relative importance to GDP at constant basic prices increased from 21.3% in 2003 to 22.4% in 2004. As a result of these developments, the sector's contribution to the growth rate of GDP at constant basic prices increased to 2.9 percentage points compared to a 0.4 percentage point in 2003, to be the first contributing sector to push the economic growth during 2004. The importance of industrial sector from Gross Domestic Product (GDP) at fixed price for years 2001-2004.

The real growth rate of the industrial sector in 2004 was a result of the growth in the real value added of the manufacturing sector by 16.4% in 2004 compared to 2.8% in 2003, and the decline in the real value added of the "mining and quarrying" sector by 4.2% against a decrease of 2.7% in the previous year.

The growth in the manufacturing sector is attributed to the increase in the domestic and foreign demand for

many of the sector's products especially oils and fats, fertilizers, clothes and pharmaceuticals. Available data indicate that the value of manufactured exports increased by 41.0% against an increase of 9.0% in 2003. Such an increase was mainly due to the increase in exports from Qualifying Industrial Zones (QIZs) and to the retrieval of the domestic exports to the Iraqi market which increased by 61.6% against a decrease of 28.2% in 2003. On the other hand, the "mining and quarrying" sector retrograded in 2004 mainly because of the retraction of phosphate and potash production. Phosphate production declined as a result of the company's strategy during the year to use the phosphate inventory, while potash production declined due to the decrease in the evaporation process of the salt ships because of the weather's conditions that prevailed during the year, Considering developments of the industrial production in 2004, one would notice an increase in the compound industrial production index of both "mining and quarrying" and manufacturing sectors by 12.0% against a decline of 8.9% in 2003. This increase resulted from the increase in the manufacturing industrial production index

by 13.9% against a decrease of 9.8% in 2003 and the decline of the "mining and quarrying" industrial production index by 3.8% against a decrease of 2.1% in 2003. The increase in the manufacturing industrial production index was due to the increase in the indices of various manufactured products especially food products and beverages, tobacco, fertilizers, cement, clothes and textiles, and refined oil products. The decline in the "mining and quarrying" industrial production index was a result of the decline in the production of phosphate and potash in 2004 by 8% and 1.6%, respectively, against a decrease in the former by 4.9% and an increase in the latter by 0.3% in 2003.

As for investment development in the industrial sector in 2004, available data released by the Ministry of Industry and Trade show an increase in both the number of registered industrial companies and their capital compared to the situation in 2003. The number of registered industrial companies reached 589 companies with a capital of JD 38.5 million in 2004 against 426

companies with a capital of JD 12.5 million in 2003. Regarding industrial companies listed in the Amman Stock Exchange, 19 of the existing companies raised their capital in 2004 (through capitalization and public subscription) by JD 60.9 million against five companies which raised their capital by JD 27.7 million in 2003. Two industrial companies with a capital of JD 11.0 million were listed in 2004 while no industrial companies were listed in the previous year.

Investments in industrial projects benefiting from the Investment Promotion Law increased in 2004 by JD 106.1 million to reach JD 345.6 million, distributed among 376 projects against JD 239.5 million, distributed among 261 projects in 2003.

Table (2) Shows the Main Indicators of the Industrial Sector for years (2001- 2004). Table (3) Shows the importance of industrial sector from Gross Domestic Product (GDP) at fixed price for years (2001- 2004).

Table (4) Appears the Growth rate at constant basic prices at fixed price for years (2001- 2004).

**Table 3. Main Indicators of the Industrial Sector for years 2001- 2004.**

| Years                                      | 2001<br>% | 2002<br>% | 2003<br>% | 2004<br>% |
|--|-----------|-----------|-----------|-----------|
| Value added at current prices (JD million) | 1,037.6   | 1,176.4   | 1,274.7   | 1,522.7   |
| Growth rate at constant prices             | 8.0       | 18.6      | 2.1       | 13.6      |

Source: Central Bank of Jordan, annual report, 2004.

**Table 4. Growth Rate at Constant Basic Prices 2001-2004.**

| Years                 | 2001<br>% | 2002<br>% | 2003<br>% | 2004<br>% |
|-----------------------|-----------|-----------|-----------|-----------|
| Mining and Quarrying  | 2.9       | 3.1       | 3.9       | 2.5       |
| Manufacturing         | 16.7      | 18.7      | 18.4      | 19.9      |
| Electricity and Water | 2.7       | 2.6       | 2.6       | 2.7       |
| Construction          | 5.4       | 5.5       | 5.3       | 5.5       |

Source: Central Bank of Jordan, annual report, 2004.

To determine the developing human resources should answer the following question:

How the human resources can be developed (employee training and employee development) in the Jordanian industrial companies play an important role in increasing productivity and profitability?

To answer this question, the knowledge of the following items is necessary:

1. Framework model of strategic human resources management.
2. Theoretical Framework of developing human

resources (employee training and employee development).

3. Examination of the relationship between productivity and profitability as dependent variables and employee training and employee development as independent variables based on previous studies.

#### **Framework Model of Strategic Human Resources Management**

Based on the previous studies of strategic management (Jackson, Issues in strategic Management

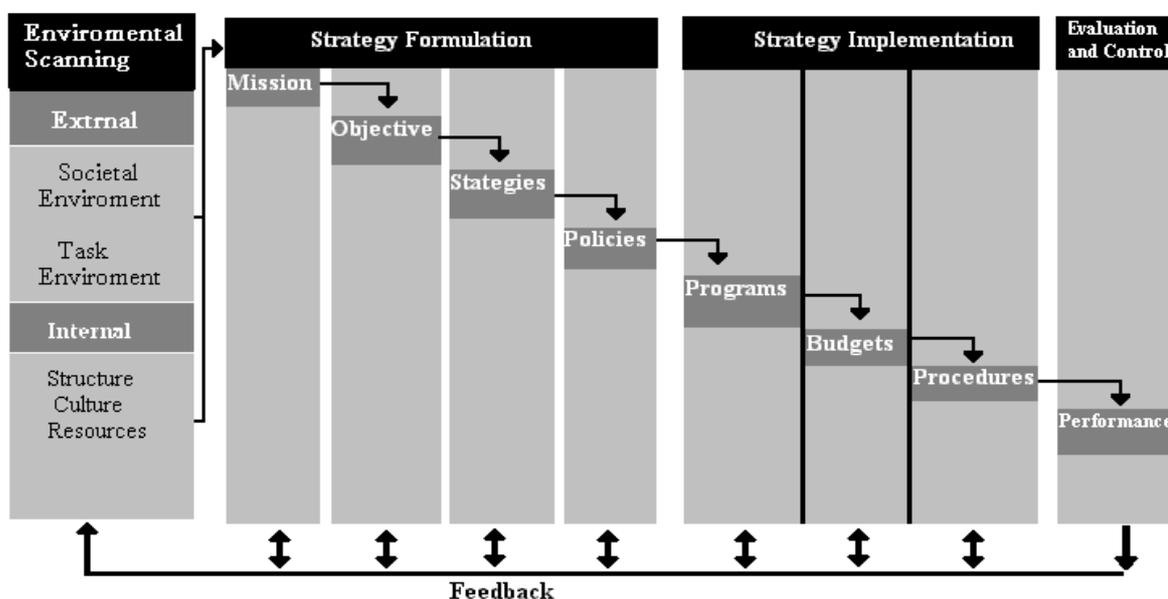
course, MBA. 2005; Bratton, J. and Gold, J. 2003; Beardwill, T. and Hoiden, L. 2001; Hunger and Wheelen 1996; Aljuboer, 2003; Powell, T., 1992 and Henderson, B., 1979) the basic elements of the strategic management process involve: environment scanning, strategy formulation, strategy implementation and evaluation and control. Environment scanning consists of external and internal variables, such as societal environment and task environment which represents the external variables, but the internal variables such as structure culture resources.

The strategy formulation consists of mission, objective, strategies and policies of corporations. This process represents the development of long-range plans for the effective management of environmental

opportunities and threats in the light of corporate strengths and weaknesses.

The strategy implementation consists from programs, budgets and procedures. This process translates strategic and polices into actions through the development of programs, budgets and procedures .This process might involve changes within the overall culture, structure and management system and system of the entire organization.

The evaluation and control is the process by which corporate activities and performance results are monitored and actual performance is compared with desired performance. The total process can be summarized in the following model:



**Figure 2. Strategic Management Model.**

**Source:** Hunger, J. David and Wheelen, Thomas L., Strategic management, Fifth Edition, Addison-Wesley-Publishing Company, 1996, P 1.

Strategic management model shows that the strategic management process has two distinct yet interdependent phases: strategy formulation and strategy implementation.

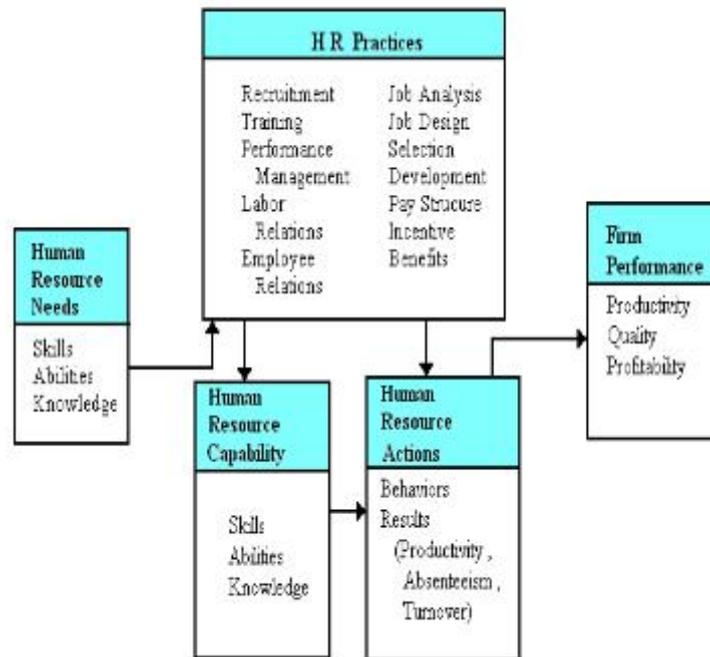
During the strategy formulation the strategic planning groups decide on a strategic direction by defining the company’s mission and goals, its external opportunities and threats, and its internal strengths and weaknesses.

During strategy implementation the organization follows on the strategy that has been chosen. This consists of structuring the organization, allocating resources, insuring that the firm has skilled employees in

place and developing reward systems that align employee behavior with the organization’s strategic goals.

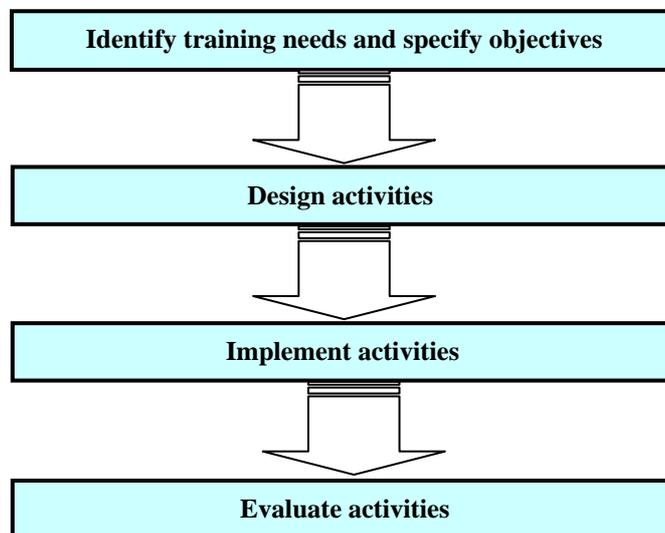
Both these strategic management phases must be performed effectively. There are five important variables which determine success in strategy implementation:

These variables are organizational structure, task design, the selection, and training and employee development. The study concentrates on the training and employee development Because these variables play an important role in increasing productivity and profitability more effectively.



**Figure 3. The Model of Strategic Human Resources Management**

Source: Now, Raymond A. et al., Human Resource Management, Irwin, 1994, P 57.



**Figure 4. Stages of training model**

Source: Bratton and Gold, 2003.

This model consists of human resource needs, human resource practices, human resource capability, human resource actions and human resource performance.

Many companies have recently emphasized quality in

their products engaging in Total Quality Management (TQM) programs. These programs require extensive training of all employees in the (TQM) philosophy, methods and often other skills that ensure quality.

Through recruitment, selection, training and development, companies can obtain a pool of human resources capable of implementing a given strategy.

This model identifies training needs and specific objectives. Then design activities, implement activities and evaluate activities. The companies can be classified by strategic management into two types:

Porter's typology of cost, and differentiation and the Miles and Snow's typology of defenders analyzers, and reactions. Porter's typology of cost and differentiation considers the wildly uses, because it consists of competitive advantages which help the company to be able to achieve a great value in its production process. Value can be created in two ways, first, value can be created by reducing the costs. Second, value can be created by differentiating a product of service in such a

way that allows the company to charge a premium price relative to the competitors.

*Theoretical Framework of the producing and Employee Study*

According to the theoretical framework model of strategic human resources management and based on the previous studies (Bratton, J. and Gold, J. 2003, Beardwell, T. and Hoiden, L. 2001 and Noe, Raymond and *et al.*, 1994) there are four competitive challenges. Quality, technological and structural, global and social. These are considered key components in developing human resources (employee training and employee development).

To meet these challenges, business must be expanded and should be better employees pared for increasing productivity and profitability. Figure (5) shows the four challenges of business competitive:



**Figure 5. Challenges of Business Competitive**

Preparing employees for increasing productivity and profitability requires skillful provision and organization of learning experiences in the workplace in order to achieve business goals. It must be aligned with the organization's mission and strategic goals through enhancing the skills, knowledge and learning ability.

There will be continuous organizational as well as individual growth to increase the capacity of individuals,

to participate effectively in the workforce throughout their whole career life and increase the capacity of firms to adopt high performance work practices. So, to be successful companies must ensure that employees have the appropriate skills to work productively in teams, with new technology, increase in international setting.

The goal of employee training discuss how training can help companies gain competitive advantages and how

discusses to master the specific knowledge, skill or ability emphasized in a specific training program and to apply it in their day-to-day activities. However, for companies that use high-leverage training to gain competitive advantages, training can also help to create a learning organization.

A learning organization has one whose employees are continuously attempting to learn new things and apply what they learn to improve product or service quality. Employee training used a systematic approach. This approach includes: Needs assessment, design of the learning environment, consideration of employee readiness for training and transfer-of training issue.

Also the employee development is important role in increasing productivity and profitability because the employee development is a necessary component of a company's efforts to improve quality, to meet the challenges of global competition and social change in corporate technological advantages and change design. Increased globalization of product markets compels companies to help their employees understand cultures and customers that affect business practices. For high investment companies and work teams to be successful, employees need strong interpersonal skills. Employees must also be able to perform roles traditionally reserved for managers.

There are four approaches used for employee development. These approaches are: Education, assessment, Job experiences and behaviors that are strengthened by each development method.

Career management is very important to increasing productivity and profitability because it represents the pattern of work related experience that span the course of a person's life. Work experience include positions, job use, needs and feelings.

Employees career needs depends very much on their stage of career development and their biological age. As a result it is important for managers to understand the career development process and the differences in employees; needs and interests at each stage of development.

### Literature Review

Overall, studies on the relationship between profitability and producing and employee training are varied according to their focus on a particular country level or by using cross-countries panel data. On the level of single country, most studies are conducted in the US

and emerging markets. Ben Naceur (2003) investigates the determinants of the Tunisian Banking Industry profitability for the 1980-2000 period.

This research paper was initiated by a series of questions: Why are some commercial banks more successful than others? To what extent are discrepancies in banks' profitability due to variation in endogenous factors under the control of bank management and to what extent, do external factors has an impact on the financial performance of these banks? Answers to the questions returned to many factors, employee training is one of the vital factors which improve profitability. So we can say that employee development has an important role in increasing productivity and profitability because the employee development is a necessary component of a company's efforts to improve quality. Ben Naceur and Goaiéd (2001) investigate the determinants of the Tunisian banks' performances during the period 1980-1995. They indicate that the best performing banks are those who have struggled to improve labour and capital productivity.

Husni K. and Mohamed A. (2005) investigate the Factors affecting the profitability determinants of the industrial companies in Jordan, over the period (1997-2001) using the OLS techniques. This study found that there is a positive and significant relationship between the companies' profitability and producing and employee training. Also, Makhmreh, Muhsen, (2000) Corporate performance In Jordan, this study found a positive and significant relationship between the companies' profitability and producing and employee training.

Neeley and Wheelock (1997) explored the profitability of a sample of insured commercial banks in the US for the 1980-1995 period. They found that bank performance is positively related to the annual percentage changes in the state's per capita income.

On the cross/ panel country level, studies are focused on European, MENA, as well as developed and developing countries. Under this concern, Goyeau *et al.* (1999) applied the firm theoretical approach in the context of Demerguç-Kunt and Huizingha (1999) examined the determinants of bank interest margins and profitability using a bank level data for 80 countries in the 1988-1995 periods. They found that there is a positive and significant relationship between the companies' profitability and producing and employee training.

Athanasoglou and *et al.* (2006), examined the

profitability behavior of bank-specific, industry related and macroeconomic determinants, using an unbalanced panel dataset of South Eastern European (SEE) credit institutions over the period 1998-2002. They found that employee training is one of the vital factors, which improved profitability in the South Eastern European (SEE) credit institutions.

Manuel Espitia-Escuer, Lucía Isabel García-Cebrián (2004) examined the determinants of the productive efficiency for the bank systems in the European Union countries. The aim of this paper was to verify the existence of differences in the efficiency of the banking sectors and what variables determined these differences in European Union countries in the period 1988 to 1999.

Finally, Goddard John et al. (2005) examined the profitability of European banks during the 1990s. This was investigated using cross-sectional, pooled cross-sectional time-series and dynamic panel models. Models for the determinants of profitability incorporate size, diversification, risk and employee training type, as well as dynamic effects.

#### 4. METHODOLOGY

This study follows in the footsteps of Demergüç-Kunt and Huizinga (1999), Ben Naceur and Goaid (2001) and Husni K. and Mohamed A. (2005) among others. This study extends the existing literature by using industrial level data in the context of Jordan over the period (2000-2004) using the OLS techniques.

##### Data

The sample of this study consists of panel data for all industrial companies listed within the Amman Stock Exchange (ASE) for 2004 amounting to 30 companies (Appendix 1). These companies that met the following conditions have been selected:

- Industrial companies' shares have been traded in the Amman Stock Exchange in the period 2000-2004.
- Trading has not been interrupted in those companies' shares which have not been merged or liquidated throughout the period of study.
- Data have been available about those companies' financial structure throughout the period of study.
- The study depended on the following sources for collecting the data needed:
- Annual reports issued by Jordanian industrial

companies.

- Annual report issued by Amman Stock Exchange.
- Annual reports issued by the Central Bank of Jordan.
- Some statistics issued by the Jordanian General Statistics Departments.

##### Explanatory Variables

###### (1) Dependent Variables

Profitability ratio: Following Demirgüç-Kunt and Huizinga (1999), Cavallo and Majnoni (2001), Laeven and Majnoni (2003), Ben Naceur (2003), Davis and Halbin, (2004), Davis and Zhu (2005) and Husni, K. and Mohammed, A. 2005. It is measured by earning before interest and tax divided by book value of total assets.

###### (2) Independent Variables

A) Employee training: Following Demirgüç-Kunt and Huizinga (1999), Cavallo and Majnoni (2001), Laeven and Majnoni (2003), Ben Naceur (2003), Davis and Halbin, (2004), Davis and Zhu (2005), and Husni K. and Mohammed, A. 2005, it is measured by total expenses on employee training. They find a significant positive relationship between Profitability and employee training of the firm.

B) Employee development: it is measured by total expenses on employee development. They find a significant positive relationship between Profitability and employee development of the firm.

Based on the above discussion we can estimate the hypotheses as follows:

###### (1). Employee training

Ho1: There is a significant positive relationship between Profitability and employee training of the firm.

###### (2). Employee development

Ho2: There is a significant positive relationship between Profitability and employee development of the firm.

To examine the following hypotheses we can estimate regression model as follows:

$$\text{Prof} = c + b_1 \text{Tr} + b_2 \text{Dv} + e$$

Where:

c = Constant factor

Prof = Profitability, it represents earning before interest and tax divided by book value of total assets.

b = the coefficient relationship within the regression model which needs to be tested.

Tr = Training.

Dv = employee development.

e= the random errors.

### Methods of Analyzing Data and Testing Hypotheses

The data has been analyzed according to the SPSS computerized statistical program in order to find out Pearson Correlation. This will be needed for identifying the presumed trends' relationships between independent and dependent variables and minor regression in order to determine the independent variables affecting the dependent variables, along with identifying T-test.

### Analysis of Data and Testing Hypotheses

The Pooled Regression Analysis has been used for testing the hypotheses of the study according to the following manner:

#### Testing Hypothesis (1):

Ho1: There is a significant positive relationship between Profitability and employee training of the firm.

This hypothesis has been tested by using the Regression Methodology at a significant level of 5%. As Table (1) shows, the adjusted  $R^2$  value which explains the presumed relationship between the two variables is relatively high. According to this table, the coefficient analysis reveals a positive relationship amounting to 0.583 degrees, thereby representing a significant indicator at a theoretical level of 5%, whereas the "sig" degree

equals 0.002. Consequently, the null hypothesis is accepted. In other words, there is a positive relationship of statistical significance between the return on equity ratio and the share's market value.

#### Testing Hypothesis (2):

Ho2: There is a significant positive relationship between Profitability and employee development of the firm.

Table (2) shows the results of analyzing the minor regression indicating a relationship between Profitability and employee development of the firm.

According to this table, there is a relatively high Adjusted  $R^2$  which means that the presumed model explains to a reasonable extent the relationship between the Profitability and employee development of the firm.

This table also indicates that there is a positive efficient of (0.623) degree which is statistically significant at a theoretical level of 5% where the "Sig" degree equals 0.003. So, the null hypothesis is accepted. In other words, there is a positive relationship of statistical significance between the Profitability and employee development of the firm.

This result is meets our expectation; meets our expectations that there is a positive relationship between Profitability and employee development of the firm.

**Table 5. Results of the regression analysis of the relationship between profitability and employee training of the firm.**

| Independent variables employee training | Coefficients | T     | Sig.  |
|---|--------------|-------|-------|
| Constant                                | 3.123        | 3.421 | 0.000 |
| employee training                       | 2.382        | 1.641 | 0.012 |
| Adjusted R <sup>2</sup>                 | 0.482        |       |       |
| Pearson correlation                     | 0.583        |       |       |
| Sig                                     | 0.002        |       |       |

**Table 6. Results of the Regression Analysis of the Relationship between profitability and employee development of the firm.**

| Independent variables employee development | Coefficients | T     | Sig   |
|--|--------------|-------|-------|
| Constant                                   | 2.820        | 3.821 | 0.001 |
| employee development                       | 3.582        | 1.441 | 0.022 |
| Adjusted R <sup>2</sup>                    | 0.562        |       |       |
| Pearson correlation                        | 0.623        |       |       |
| Sig  | 0.003        |       |       |

**Table 7. Results of the multiple regression analysis of the relationship between profitability and employee training and employee development of the firm**

| Coefficient             | T      | Coefficients | Sig   |
|-------------------------|--------|--------------|-------|
| Constant                | 2.643  | 3.821        | 0.000 |
| employee training       | 3.175  | 1.741        | 0.013 |
| employee development    | 12.782 | 1.653        | 0.212 |
| Adjusted R <sup>2</sup> | 0.543  |              |       |
|                         |        |              |       |

According to this table, there is a high adjusted R<sup>2</sup>, which means that the presumed model explains a reasonable extent of the relationship between Profitability and employee training and employee development of the firm. This table also shows a statistical significant between Profitability and employee training and employee development of the firm.

### 5. RESULTS

The results of this study can be summarized as follows:

(1) There is a statistically significant relationship between Profitability and employee training of the firm.

The result turned out to be consistent with the conclusions reached by the study that was conducted by Demirgüç-Kunt and Huizinga (1999), Cavallo and Majnoni (2001), Laeven and Majnoni (2003), Ben Naceur (2003), Davis and Halbin, (2004), Davis and Zhu (2005), and Husni K. and Mohammed A. 2005, they maintain that there is a statistically significant relationship between Profitability and employee training of the firm.

(2) There is positive relationship between Profitability and employee development of the firm.

This result is consistent with the conclusions reached by the study that Husni K. and Mohammed A. 2005, Ben Naceur (2003), Davis and Halbin, (2004) and Davis and Zhu (2005). They maintain that there is a statistically significant relationship between Profitability and employee development of the firm.

### RECOMMENDATIONS

In view of the results of this study, the researcher emphasizes the following:

- (1) Development of the employees greater efforts are required into selecting and training and development of the employees which limits employees' abilities to be innovative and creative.
- (2) Improving skills of employees and managers.
- (3) Meeting customer's services.
- (4) Changing in employees, work roles and skills requirements.

New technology causes changes in basic skill requirements and work roles and often results in combining jobs.

- (5) Increasing in the use of teams to perform work. As the information needed to improve product quality and customer services becomes more available to employees at the point of sale production because of advantages of this product or services.

- (6) Changing company structure. Companies emphasizes effect, decision making by managers.

- (7) Changing in the nature of managerial work. To gain the maximum benefit from the new technology in the workplace, managers must be able to move away from the military model of management which emphasizes controlling, planning and coordinating activities.

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## APPENDIX

### No. Company Name

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|----|--|----|---|
| 1  | Jordan Petroleum Refinery                  | 15 | Dar Al Dawa Development and Investment      |
| 2  | Jordan Dairy                               | 16 | The Arab Potash                             |
| 3  | The Public Mining                          | 17 | Union Chemical and Vegetable Oil Industries |
| 4  | Arab Aluminum Industry /Aral               | 18 | Industrial Industries And Match/Jimco       |
| 5  | Arab Pharmaceutical Manufacturing          | 19 | National Poultry                            |
| 6  | The Industrial Commercial And Agricultural | 20 | Jordan Rock Wool Industries                 |
| 7  | Arab Chemical Detergents Industries        | 21 | Woolen Industries                           |
| 8  | Jordan Tanning                             | 22 | The Jordan Pipes Manufacturing              |
| 9  | Arab Center for Pharm and Chemicals        | 23 | Jordan Phosphate Mines                      |
| 10 | Jordan Poultry Processing and Marketing    | 24 | The Jordan Cement Factories                 |
| 11 | Jordan Sulpho-Chemicals                    | 25 | Jordan Paper and Cardboard Factories        |
| 12 | Jordan Ceramic Industries                  | 26 | General Investment                          |
| 13 | Pearl- Sanitary Paper Converting           | 27 | Universal Chemical Industries               |
| 14 | National Steel Industry                    | 28 | Al-Januob Filters Manufacturing             |
|    |  | 29 | Jordan Chemical Industries                  |
|    |  | 30 | Intermediate Petro-Chemicals Industries     |

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2004-2000

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2006/8/15

(1)

(2)

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