

Measuring the impact of Human Resource Management Practices on Organization Performance in pharmaceutical Multinational Companies in Egypt

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Abstract Changing competitiveness in the global markets has created new challenges for business organizations as well as individuals. To cope with this changing environment, human resource management (HRM) practices are expected to play a more vital role in company performance improvement especially those in pharmaceutical area in less developed economies like Egypt. This study investigates the impact of HRM practices on company performance in 33 companies representing all multinational companies operating in the pharmaceutical area in Egypt, with a sample of 231 respondents. Formulated hypotheses on the HRM bundles of practices were analyzed using factor analysis and regression analysis. It is found that HRM practices had a significant and positive association with company performance. Finally, a conclusion is given based on the empirical findings of this study which have implications for HRM practices in the studied companies.

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Introduction

The relationship between HRM and company performance has been a hotly debated topic over the last decade. Human resources (HR) are considered the most valuable asset in an organization but they make a better bottom line only for a few organizations (Pfeffer 1998; Wimbush, 2005). The extent to which, if any, human resource management (HRM) impacts on organizational performance has emerged as the central research question in the personnel/HRM field (see Becker and Gerhart, 1996; Guest, 1997 for reviews).

(Wright, *et al.*, 2001) pointed out that researchers in the field of human resource management (HRM) have increasingly relied on the resource-based view of the company to explain the role of human resource practices in company performance. Indeed, theoretical research on HRM has suggested that systems of HR practices may lead to higher company performance and be sources of sustained competitive advantage because these systems of practices are often unique, causally ambiguous, and difficult to imitate (Barney, 1991; Lado & Wilson, 1994; Wright, *et al.*, 2001; Voss, *et al.*, 2005).

Although initial results indicate that some human resources practices may have a positive effect on organizational performance, most scholars suggest that more conceptual and empirical work is required (Brewster, 2004; Cardon and Stevens, 2004; Givord and Maurin, 2004; Zhu, 2004.).

Thus, research has begun to isolate a few critical HR practices that seem to have a significant contribution on company performance. In this paper

we focus on some of these practices, namely, Recruitment and Selection, Performance Appraisal, Unionisation, Training and Development, and Compensation. The purpose of this paper is to investigate how these HRM practices influence organisational performance and, for a better understanding of the relationship between these variables, to take into account that business strategies influence HRM in the pharmaceutical multinational companies in Egypt.

This paper is organized as follows. Firstly, we present the problem to be studied, the objectives, and the hypotheses to be tested. Then, a literature review is presented. Next, the methodology of the study is discussed. This is followed by presenting the key results, discussion, and the implications of the study. Finally, we conclude the study and highlight the main contributions, limitations of the analysis and propose directions for further research.

Statement of the Problem

Managers and administrators are becoming increasingly aware that a critical source of competitive advantage does not often come from indigenous product and services, best public relations strategy or state-of-the-art technology but from having an appropriate system of attracting and managing the organization's human resources. Despite the large bulk of literature on HRM, there is very little solid evidence on the ways in which various types of HRM strategies and practices are shaped in practice in Egyptian pharmaceutical companies, and how their synergistic

effects can impact on the attainment of set goals and objectives. Prior studies (see, Purcell & Hutchinson (2007), Wright, *et al.*, 2001) have generally addressed the relationship between HRM practices and performance in some selected organizations. They indicate that there is still a need of empirical studies to explain the impact of HRM practices on organizational performance. Thus, this study tries to fill the existing gap by examining the impact of HRM practices in pharmaceutical companies.

Research Objectives

The broad objective of this study is to determine whether the adoption of HRM practices by pharmaceutical multinational companies in Egypt can improve the organizational performance.

The specific objectives are to:

1. Evaluate the extent to which HRM is practiced by pharmaceutical multinational companies in Egypt;
2. Examine the relationship between Recruitment and selection practices, and organizational performance;
3. Examine the relationship between Performance appraisal and organizational performance.
4. Examine the relationship between Unionization and organizational performance.
5. Examine the relationship between Training and development practices and organizational performance.
6. Examine the relationship between Compensation/reward practices and organizational performance.

Research Hypotheses

In order to achieve the objectives designed for this study, the following research hypotheses are stated based on the revelations in the review of literature concerning HRM practices and companies' performance.

Hypothesis One:

Recruitment and selection practices (HR acquisition) are positively related to organizational performance.

Hypothesis Two:

Performance appraisal is positively related to organizational performance.

Hypothesis Three:

Unionization is positively related to organizational performance.

Hypothesis Four:

Training and development practices are positively related to organizational performance.

Hypothesis Five:

Compensation/reward practices are positively related to organizational performance.

Scope of the Study

The broad objective of this study is to evaluate the impact of HRM practices on the organizational performance in 33 companies representing all multinational companies operating in the pharmaceutical area in Egypt. This choice is motivated by the importance of improving the employees' performance in pharmaceutical multinational companies, as well as their abilities, education and professional skills. The goal of these companies is to prepare the employees to the process of economic growth to enable the pharmaceutical sector to better face the challenges of the coming decade. In addition, the ease of questionnaire administration and expected response facilitated by relationships with the respondents.

Literature Review

HRM Practices and Organization Performance

The changing of the competitiveness in the global market has created new challenges for organizations as well as individuals (Schuler 1992, Cascio, 1993, Stavrou-Costea, 2002). Companies should build and retain their skilled and talented human resources in order to maintain or create competitiveness.

Empirical results on HRM and performance have studied the relation between human resource management practices and firm performance (Huselid, 1995, Delery & Doty, 1996, Huselid & Delaney, 1996, Boselie, *et al.*, 2001, Datta, *et al.*, 2005, Tzafirir, 2005, Guest, *et al.*, 2008). These results show that the role of human resource management becomes strategic and proactive (Brewster & Suutari, 2005) to create a more dynamic workplace environments.

The framework of Paauwe and Richardson (1997) synthesizes the results of prior research. HRM activities give rise to HRM outcomes which influence the performance of the organization. HRM is the main way to satisfy shareholders, investors, customers, society and organisational members (Schuler and Jackson, 2006).

Huselid (1995) presented the negative relationship between employee skills, and organizational structure on turnover. On the other hand, employee skills, organizational structure, and employee motivation have a positive effect on organization performance.

Huselid and Delaney (1996) argued that HRM practices, especially selection and training, are associated with perceived firm performance in profit and nonprofit organizations.

Many studies on HRM have found a positive relationship with firm performance. Youndt, *et al.* (1996) have examined the impact of HRM strategy on firm performance of manufacturing plants and found a moderate relationship between HR system and plant performance. In addition, firm competitiveness can be improved by a high performance work system, and it has a positive relationship with organizational effectiveness (Wright, *et al.*, 2005). Similarly, Gooderham, *et al.*, (2006) found a positive impact of HRM practices on firm performance in Europe.

Recruitment and Selection

HRM activities involved in getting the right person on the right spot (employee skill and organizational structures) contribute to higher productivity and market value of the company. Moreover, they have a slight negative impact upon turnover (Huselid, 1995). This practice can ensure that the right people, with the desirable characteristics and knowledge, are in the right place, so that they fit in the culture and the climate of the organization. Moreover, pinpointing the right employees would decrease the cost of employees' education and development. Li, *et al.* (2006) argued that a firm requires talented and skilled workers to sustain the high level of competitive advantage. Huselid (1995) examined HR practices of high-performance companies and found that attracting and selecting the right employees increases the employee productivity and contributes to a reduction in turnover. However, for small companies, recruiting is often quite problematic (Cardon and Stevens, 2004). This can be due to several reasons such as limited financial and material resources and jobs with unclear boundaries responsibilities, which decreases their potential to hire qualified candidates.

Michie and Sheehan-Quinn (2001) have identified a positive link between hiring a manager and employees, and the creation of the right culture for organizational growth.

Selection is the process of choosing a candidate from a group of applicants who best meets the selection criteria for a particular position. In this process the right person chosen for the requisite qualifications and knowledge is placed in the appropriate job position to decrease the cost, and maximize the profits by means of their merit and talent (Vlachos 2008). Staffing selectivity is positively related to perceived market performance (Delaney and Huselid, 1996). Evaluation and investment in recruitment and selection are positively related to labour productivity (Koch and McGrath, 1996).

Paul and Anantharaman (2003) pointed out that an effective hiring process ensures the presence of employees with the right qualifications, leading to production of quality products, which, in turn,

improves economic performance. Cho *et al.* (2006) examined pre-employment tests as a key component of selective hiring and found that when employed, these tests can select employees that stay with a company longer. Passing pre-employment tests may give an applicant a stronger sense of belonging to the company, resulting in higher degrees of commitment if employed.

Cho, *et al.* (2006) have identified that there is a positive and significant relationship among HRM practices and staffing (recruitment source, pre selection test, IQ test, structured interview, and biographical information blank of the organisation) for improving financial or profit performance. As a result, organisations are encouraged to attract qualified candidates for survival and growth. These findings provide foundation for the first hypothesis.

Performance Appraisal

Many studies discussed the importance of performance appraisal (Youndt *et al.*, 1996, Becker and Huselid 1998). According to Huber (1983), performance appraisal provides information that is dealt with employee salary, training needs, compensation, promotion as well as employee development, transfer and employee feedback.

Levin (1986) has discussed some uses of performance appraisal, such as assessment of employee training needs, determining of employee salary, feedback and suggestion of employee past performance and employee development. According to Thang (2004), taking a suitable HRM related decision affects how well employees perform their jobs.

It is important to note that performance appraisal is a continuous process rather than a 'once a year' exercise. Stone (2002) has suggested that organizations need to keep improving performance to survive in competitive environment. Furthermore, performance appraisal plays an important role in achieving organizational objectives in case of rapidly changing environment with tighter budget, downsizing and pressure for greater employee accountability.

Stone (2002), Cho, *et al.* (2006), and Chand and Katou (2007), suggest performance related rewards that target those who meet the performance requirements.

The previous discussion supports the second hypothesis.

Unionisation

Union is another factor that can contribute to the organization performance. Unions have negative impact on HR activities. For example, recruitment, selection, compensation, promotion, training, collective bargaining and dismissal of employees are

affected by the presence of unions (Murayama & Yokota, 2009).

Empirical research on the union impact on wages and productivity has established that the degree of unionization is positively related with wages and productivity (Arthur 1994, and Huselid, 1995). The union makes bargaining explicit, and it results in an enforceable agreement. Cooperative bargaining is likely to produce the most efficient outcome. The result is that the unionized workplace adopts innovation which leads to productivity enhancement.

On the other hand, the union presence is negatively related to the employee satisfaction with the amount of influence over job (Delbridge and Whitfield, 1999).

In the empirical study conducted by Siengthai and Bechter (2001), they argued that the union may first have a negative impact on the organisation's performance, but it is then likely to lead to the management's initiatives to bring in new technology, and hence, innovation and productivity. We use these facts to present the third hypothesis.

Training and Development

Vlachos (2008) pointed out that training and development (T&D) is a very important element of HRM. Li, *et al.* (2008) defines training as activities which provide employees with needed skills to perform better in their current jobs. In the competitive business era technologies and innovations are needed to overcome these pressures, while employees are required to acquire new knowledge and skills to perform their tasks efficiently.

Training and development may be related to firm performance in many ways. First, training programmes increase the firm specificity of employee skills, which, consecutively, increases employee productivity as well as reducing job dissatisfaction that results in employee turnover (Huselid, 1995). Second, training and developing internal personnel reduces the cost and risk of selecting, hiring and internalizing people from external labour markets, which again increases employee productivity and reduces turnover. Training and development, like job security, requires a certain degree of reciprocity: A company that systematically trains and develops its employees tells them that their market value develops more favorably than in other companies. This increases employees' productivity, commitment and lowers turnover. Companies may also assist their employees in career planning. In doing so, companies encourage employees to take more responsibility for their own development, including the development of skills viewed as significant in the company (Doyle, 1997).

Other studies focused on the positive impact of training on the different dimensions of the

performance of the firm: product quality, product development, market share and growth sales (Kalleberg and Moody, 1994). More investment in training results in higher profits (Kalleberg and Moody, 1994; d'Arcimoles, 1997). Similarly, more investments in training result in a lower degree of turnover (Arthur, 1994). Moreover, training has a positive impact upon perceived organizational performance (Delaney and Huselid, 1996). It enhances the relationship between management and the other employees (Kalleberg and Moody, 1994). On the other hand, Harel and Tzafrir (1999) argued that training practices affect perceived organizational performance positively.

Similarly, Tai (2006) emphasizes on the crucial role that training and development plays in increasing work adaptability, ability, flexibility, maintaining necessary competence, and motivates employees. This variable influences employee productivity.

Vlachos (2008) discussed the indirect relationship between training and firm performance. Bartel (1994) found a significant positive relationship between training and labour productivity in her study. Moreover, Guidetti and Mazzanti (2007) found that training activities are positively associated with high performance practices, innovative labour demand features, work force skill level, firm size, and are affected by labour flexibility in various directions.

Huselid (1995) found that the education and development of employees has a significant effect both upon the personnel productivity and the short-term and long-term indicators of organizational performance. Furthermore, Paul and Anantharaman (2003), in searching the links between HR practices and organizational performance, proposed that career development programmes demonstrate a true organizational interest in the growth of its personnel, which, in turn, stimulates commitment and devotion, subsequently, raising personnel productivity and consequently economical output.

Barringer *et al.* (2005) compared rapid-growth and slow-growth firms and found that rapid-growth firms depend heavily on the abilities and efforts of their employees to maintain their growth-oriented strategies. The fast-growth firms used training programmes to achieve their objectives and emphasized employee development to a significantly greater extent than their slow-growth counterparts. Therefore, training and employee development practices are more common in rapid-growth firms than slow-growth ones. Merino (2003) examined the manufacturing industry in Spain and found that quality management practices related to product design and development, together with HR practices, were the most significant predictors of operational performance.

More recently, Apospori, *et al.* (2008) conducted a study in southern European countries and found that training had a significant impact on firm performance.

According to the aforementioned findings, we proposed the fourth hypothesis.

Compensation

Compensation refers to all monetary payments and all commodities used instead of monetary to reward employees. The expectancy theory (Vroom, 1964) suggests that rewards, that can be understood as a form of direct and indirect compensation packages, have potential to influence employee work motivation.

Supporting this argument, Ngo, *et al.* (1998) clarified that Employee motivation, based on perceived expectations, can provide the link between compensation and performance. Expectancy theory posits that pay level will influence employee performance when (a) employees perceive that a relationship exists between their efforts and performance and (b) employees gain specific benefits if they perform well.

Performance-based compensation is the dominant HR practice that firms use in order to evaluate and reward employees' actions (Collins and Clark, 2003). Performance-based compensation has a positive effect upon employee and organizational performance (Brown, *et al.*, 2003; Cardon and Stevens, 2004).

Reward is positively correlated with the different dimensions of the performance of the firm: product quality, product development, profit, market share, customer satisfaction and growth in sales (Kalleberg and Moody, 1994). Higher rewards contribute to a better social climate between management and the other employees (Kalleberg and Moody, 1994). Moreover, higher rewards contribute to a decrease in turnover (Arthur, 1994).

Delaney and, Huselid (1996) argued that incentive compensation has a positive impact upon perceived organizational performance.

Performance-related pay affects employee motivation positively (Dowling and Richardson, 1997). This increases the productivity (Lazear, 1996). Empirical studies on the relationship between performance-related pay and company performance have generally found a positive relationship, but a growing body of empirical evidence suggests that it is not just pay level that matters, but also pay structure (Singh, 2005; Wimbush, 2005). Both performance-based compensation and merit-based promotion can be viewed as ingredients in organizational incentive systems that serve to encourage individual performance and retention (Uen and Chien, 2004).

In their study of foreign firms operating in Russia, Fey, *et al.* (2000) found that salary level was revealed to be significantly associated with firm

performance for both managers and non-managers. In addition, promoting managers based on merit was positively associated with firm performance.

Huselid (1995) asserted that the compensation system is recognised as employee merit and it is widely linked with firm outcomes. According to Banker *et al.* (1996), outcome-based incentives on sales, customer satisfaction and profit increased with intensity of competition and proportion of upscale customers and decreased with level of supervisory monitoring.

Excellent reward systems are positively related with perceived profit, market share and investments in the near future. Banker, *et al.* (2001) agreed with that in their study of the effectiveness of incentive plans in the hotel industry and found that incentive plans related to increased revenues, increased profits and decreased cost. Employee share ownership schemes, profit-related pay and performance-related pay are positively related to financial performance (McNabb and Whitfield, 1999). Employee stock option plans affect productivity positively (Meijhuizen, 1999).

Thang (2004) posits that compensation and reward can be powerful tools for getting efforts from the employees to fulfill the organisational goals. In the same vein, Paul and Anantharaman (2003), Wan (2008) asserted that found that compensation and incentives directly affect operational performance. Based on this discussion, the fifth hypothesis was proposed.

Methodology

Participants and Site

The population of the present study is defined as the 33 multinational pharmaceutical companies operating in Egypt that were listed and licensed as pharmaceutical companies in the book of Master on therapeutics drugs at the Egyptian pharmacists syndicate (Wely, 2007). Therefore, the targeted companies reflect the whole population rather than a sample of the population which guarantees unbiasedness.

The rationales behind targeting these companies as the subject of this study refer to the important role they play in enhancing the Egyptian economic performance. The pharmaceutical industry, which is a very active sector in Egypt, is one of the main pillars of the national wealth and it is pushing the whole economy forward. Pharmaceutical companies in Egypt are known for their commitment to developing employees to offer better product quality. These companies pay more attention to developing HRM practices.

A purposive or judgmental technique was applied in determining the participants that will best enable the researcher to answer the research questions, and to

meet the research objectives. Thus the study targeted the top managers, i.e. the chairman, Productions, Sales, Human Resources and Financial Managers, and the top HRM Executive with one of the HRM Executive of the companies. Regardless of their title, the participants were interviewed by direct personal interviews to obtain full information about the current practice of HRM in the pharmaceutical multinational companies in Egypt.

The rationale behind this choice is related to the fact that top managers are considered, by many researchers in the field of HRM, as the most important group that can secure the success of HRM functions/programs. Their support, commitment, opinions, and attitude towards the importance of HRM functions/programs in the company decide the success of these functions/ programs. In addition, these managers are the key influential decision, and strategy makers in the company. Moreover, their appreciation of the benefits of HRM will guarantee their commitment and support to this important function. On other hand, by meeting several HRM executives in each company, the researchers could cross-check information related to some aspects of HRM activities given by the top HRM managers.

Sample and data collection

A questionnaire was constructed to measure HRM practices and organizational performance. According to Vogt (1999), it is important to test the questionnaire before administering it to the entire sample. So the questionnaire was pretested through interviews within randomly selected companies. The questionnaires were distributed to 35 respondents from seven companies. The respondents were mainly managers similar to the managers whom the researchers intended to interview. The HRM practices with 21 items were tested with 35 respondent to obtain feedback, and assess the scale validity of the survey. Based on the results of the pretest instrument, the final questionnaire was refined. Two HRM items were deleted, and hence, only 19 items of HRM have been used in the full scale questionnaire survey. The answers were collected through interviews. The interviews were carried out with the aforementioned participants in the 33 companies representing all multinational companies operating in the pharmaceutical area in Egypt. A total of 208 out of 231 respondents, in the 33 companies, were used for the analyses, resulting in 90 % usable response rate which is considered a reasonable rate for achieving the statistical analysis and reaching the research objective.

HRM Practices

In this study, the researcher used 19 HRM practice items. These were chosen from previous

studies such as Huselid (1995), Youndt, *et al.* (1996), Becker and Huselid (1998), and Datta, *et al.* (2005). The studied items include employee recruitment and selection, training and development, performance appraisal, compensation/reward benefits, and trade union as employee welfare in term of collective bargaining regarding their labour welfare and employee training and development.

The respondents were asked to evaluate the statements on a Likert-type scale ranging from: Strongly disagree (1) to Strongly agree (5). The coefficient alpha was 0.83.

Employee Recruitment and Selection

In this study, recruitment and selection are considered as one construct for acquisition of firm employees'. The questionnaire asked the respondents about four main points. These are: hiring people with specialized skills, hiring people with creative thinking, whether the recruitment process fit the jobs appropriately, and whether the company prefers the promotions internally instead of external hiring. Many studies focused on these items such as Huselid, 1995, Siengthai & Bechter (2001), Minbaeva (2005), Dechwattanapaisal (2005), Purcell & Hutchinson (2007).

Employee Performance Appraisal

This item has five main points. These are: The clarity of the employee evaluation criteria, whether performance appraisal put emphasis on results, whether the management provide feedback regularly, the degree of employee satisfaction with the performance appraisal result, and the commitment of employees towards their work performance. These items were used in many studies as (Huselid (1995), Ngo, *et al.* (1998), Pfeffer (1998), Shah & Ward (2003), Paul & Anantharaman (2003)).

Employee Training and Development

This item has four main points. These are: the degree of familiarity of new employees with the norms and values of the company, whether the company provides continuous training to employees to update their skills, whether the training programs are updated to fit with the changing environments, whether the training programs provided are of high quality. These items were used in many studies as Huselid (1995), Becker and Huselid (1998), Siengthai and Bechter (2001), and Dechwattanapaisal (2005).

Employee Compensation/Reward

This item has four main points. These are: compensation system depends on the level of knowledge and skills of the employees, compensation systems reward innovative idea, good job is noticed

and rewarded, and top management participates in decision making with all levels of jobs. These items were studied by Huselid (1995), Ngo, *et al.* (1998), Collins and Smith (2003), Paul and Anantharaman (2003) and Minbaeva(2005).

Employee Unionisation

This item has two main points. These are: whether the employee union is the part of management, and whether unionisation plays an important role in productivity.

Company Performance

In this study, company performance is evaluated using some criteria such as employee turnover, productivity improvement through adoption of new technology, organisational goal achievement, effect of HRM practices on organisational productivity, customer satisfaction, employee incentives, and workplace environment. The respondent were asked to evaluate these criteria on a five point interval scale (Stroh, *et al.*, 1996) ranging from '1' not at all, '2' To some extent, '3' Average, '4' Well, and '5' Very Well. The Cronbach alpha value for this scale was 0.83.

Analysis

Descriptive statistics was used to analyze the data. This tool explores the general patterns of the variations in the HRM variables and organisational performance. Moreover, the KMO-Bartlett test, factor analysis, and regression analysis were performed. The KMO ranges from 0 to 1, where values exceeding 0.7 indicate that factor analysis is suitable for this study. The KMO value in this study is 0.81.

Results

Table 1 presents the mean, the standard deviation, and the correlation matrix for the HRM items. The two tailed Pearson correlation coefficients show that most of the HRM practices have positive significant correlations with the company

performance. Table 2 presents the results for factor analysis. Principal component analysis (PCA) summarized the 19 HRM items in five main factors. These factors explained 60.79 percent of the total variance. Each factor has at least 2 main variables.

Factor 1 is related to performance appraisal, and compensation. It is dominated by 9 variables (e.g. 'The commitment of employees towards their work' (0.74), and 'Compensation systems reward innovative idea' (0.73)). This factor accounts for 20.12 percent of the total variance. Factor 2 is related to training and development. It accounts for 12.38 percent of the total variance. Factor 3 is related to unionization. It accounts for 11.31 percent of the total variance. Hiring criteria represents the fourth factor. It accounts for 8.62 percent of the total variance. Factor 5 is related to Recruitment and selection. It accounts for 8.36 percent of the total variance.

The regression analysis was performed. The results show that the HRM practices studied here account for 44.2 percent of the total variation in the productivity. As shown in Table 3, there is a strong positive relationship between HRM practices and organizational performance. The results also show that Performance appraisal, and Recruitment and Selection have a significant positive effect on organizational performance with coefficients of 0.284, and 0.282 respectively.

Compensation, and training and development were also found to have a significant positive effect on organizational performance with coefficients of 0.26, and 0.131 respectively. However, unionisation has a negative, but non-significant relationship with company performance.

At 0.1 percent level of significance, the F-statistic shows that the model is useful in determining if any significant relationship exists between HRM practices and organizational performance. Overall, results therefore, suggest that HRM practices have significant effect on the performance of pharmaceutical multinational companies in Egypt.

Table 1 Descriptive statistics

		Mean	SD	1	2	3	4	5	6
1	Recruitment and Selection	4.21	0.44	1.00	0.11	-0.13	0.53	0.54	0.52
2	Training and development	2.6	0.43		1.00	0.14	0.18	0.15	0.08
3	Unionization	3.6	0.54			1.00	0.07	0.03	-0.05
4	Performance appraisal	4.23	0.49				1.00	0.67	0.57
5	Compensation	3.99	0.37					1.00	0.59
6	Productivity	4.32	0.38						1.00

Notes: a. SD: Standard deviation. b. *Bold correlations* are significant at either 0.05 or 0.01 level of significance (two-tailed).

Source: Author's Computations using SPSS, 2012

Table 2 Principal component analysis (PCA)

HRM variable descriptions	Factors				
	1	2	3	4	5
Eigenvalues	5.83	2.23	1.48	1.15	1.1
Percentage of total variance explained	20.12	12.38	11.31	8.62	8.36
Cumulative percentage of variance explained	20.12	32.5	43.81	52.43	60.79
Cronbach Alpha	0.69	0.78	0.75	0.79	0.65
Factor 1: Performance Appraisal and Compensation					
The commitment of employees towards their work	0.74	-0.01	0.21	0.23	0.08
Compensation systems reward innovative idea	0.73	-0.02	0.13	0.17	0.02
The management provide feedback regularly	0.68	0.05	0.34	-0.04	0.15
Employee satisfaction with the performance appraisal result	0.64	0.18	0.17	0.04	0.13
The clarity of the employee evaluation criteria	0.62	0.28	-0.29	0.07	0.19
Top management participates in decision making with all levels of jobs	0.58	0.02	0.52	0.08	0.02
Compensation depends on knowledge and skills	0.55	0.09	0.25	0.22	-0.16
Performance appraisal put emphasis on results	0.51	0.17	0.21	0.19	0.32
Good job is noticed and rewarded	0.5	0.08	0.05	0.4	0.08
Factor 2: Training and development					
Orientation program for new employees	0.18	0.79	-0.08	0.09	0.14
Continuous training to employees to update their skills	-0.02	0.76	0.17	0.17	0.02
Training programs provided are of high quality	0.03	0.72	0.02	0.04	0.27
Training programs are updated	0.07	0.59	0.41	-0.06	0.03
Factor 3: Unionisation					
Employee union is the part of management	0.38	0.07	0.72	0.08	0.07
Unionisation plays an important role in productivity	0.22	0.14	0.68	0.27	0.08
Factor 4: Hiring criteria					
Hiring people with specialized skills	0.14	0.02	0.25	0.8	0.03
Hiring people with creative thinking	0.38	0.18	0.1	0.77	0.16
Factor 5: Recruitment and selection					
Recruitment process fit the jobs appropriately,	0.28	0.15	0.36	0.17	0.74
Promotions internally instead of external hiring	0.19	0.2	0.16	0.03	0.62

Source: Author's Computations using SPSS, 2012

Discussion

The goal of this study was to investigate the relationship between HRM practices and organizational performance in pharmaceutical multinational companies in Egypt. The mean value is high for most of the HRM variables. This proposes that the sample respondents see the strong influence of these practices on organizational performance. The test results for KMO also support this argument and all the variables are found to have consistent high level of significance.

All factors were found to have significant loadings. For example, Factor 1 (PC1 – Performance and Compensation) had high significant loadings especially on the following three items, 'The commitment of employees towards their work', 'Compensation systems reward innovative idea', and 'The management provide feedback regularly'. This proposes that pharmaceutical multinational companies in Egypt should work on improving their performance appraisal system and compensation systems. Also factor 2 had significant loading. This suggests that companies should pay attention to providing orientation programs for new employees, Continuous training to employees, and high quality training programs.

Table 3 Regression Results of HRM practices and company performance

Independent variable	Standardized Coefficients (B)	t-values
Recruitment and Selection	0.282***	4.23
Training and development	0.131*	2.2
Performance appraisal	0.284***	3.8
Compensation	0.26**	3.7
Unionization	-0.07	-1.13
Adjusted R ²	0.442	
F	32.38***	
N = 208		

Notes: a. Productivity is the dependent variable. b. * p < 0.05, ** p < 0.01, and *** p < 0.001.

Source: Author's Computations using SPSS, 2012

Factor 3 (Unionisation) had reasonably significant loading on 'the union role in management' and 'unionisation role in productivity'. Thus, even though the relationship between unionisation and company performance was non-significant, management of the pharmaceutical companies should focus on developing good human resource management and industrial relation practices as strategies to improve the performance. Factor 4 had significant loadings on 'Hiring people with specialized skills' and 'Hiring people with creative thinking'. Factor 5 had reasonably high factor loading

on 'Recruitment process fit the jobs appropriately' and 'Promotions internally instead of external hiring'.

To summarize, it was found that recruitment and selection practices have significant loadings on company performance similar to the performance appraisal, compensation system, and training and development activities. On the other hand, the impact of the training and development factor is not as high as other HRM factors. This could be due to the fact that the existing training and development activities are not very effective. This study's empirical results suggest that these HRM practices are to be further improved. Priority should be given to the improvement of performance appraisal and compensation practices (PC1), which received the highest significant loading.

In this study five hypotheses, regarding the relation between HRM practices, and organizational performance, were introduced. The regression analysis results show that HRM practices have a strong significant relationship to the overall improvement of organizational performance in pharmaceutical multinational companies in Egypt. HRM practices were hypothesized to influence the performance. The practices studied are 'recruitment and selection', 'training and development', 'performance appraisal', 'compensation' and 'unionisation'. They suggested that these variables have positive relationship or impact on the performance of pharmaceutical multinational companies in Egypt. Computed HRM items accounted for 44.2 percent of the total variance of organizational performance. The results propose that HRM practices, namely recruitment and selection, training and development, performance appraisal, compensation/ reward, and unionization, are related to organizational performance. So, these results support the proposed hypotheses, and agree with the findings of other researchers (i.e., Arthur, 1994, Huselid, 1995, Huselid & Delaney, 1996).

The first hypothesis (H1) states that Recruitment and selection practices (HR acquisition) are positively related to company performance. It was found in this study that recruitment and selection practices had a positive effect on organizational performance in pharmaceutical multinational companies in Egypt, with a standardised coefficient of 0.282 ($p < 0.001$). This result also is in line with those of previous studies (i.e., Huselid, 1995, Michie & Sheehan-Quinn, 2001, Cho, *et al.*, 2006) which presented a positive link between hiring and staffing management for organisational growth. In this study, 'recruitment and selection' has a strong impact on company performance, and by itself, it explained 28.2 percent of the total variance.

The second hypothesis (H2) suggested that performance appraisal is positively related to company performance. The study results lead to accepting the hypothesis showing that performance appraisal is positively associated with company performance with a coefficient of 0.284 ($p < 0.001$). This finding suggests that performance appraisal practice has an impact on company performance and it explains 28.4 percent of total variance. This result agrees with the findings of the previous studies undertaken by Huselid (1995), and Marshall (1998). So, the pharmaceutical multinational companies are putting more emphases on skills and qualified managers, and management evaluates managers' performance.

In this study, unionisation (H3) was hypothesized to be positively related to company performance. Although some empirical results have asserted that trade unions or welfare associations have a positive impact on company performance (Hara & Sato, 2004, Murayama & Yokota, 2009), it was found in this study that unionisation in the pharmaceutical multinational companies was non-significantly linked with company performance.

The fourth hypothesis (H4) stated that Training and development practices are positively related to company performance. In this study it was found that effective training and development had a positive effect on company performance with a coefficient of 0.131 ($p < 0.05$). These results support previous empirical results (Vlachos, 2008), which have found that training and development has an indirect relationship with company performance. The result of this study indicates that training and development practice had an impact on company performance as it explained 13.1 per cent of total variance. It was also observed from the field work that the pharmaceutical multinational companies in Egypt are putting more emphasis on skills oriented training programs to improve their managerial performance.

The fifth hypothesis (H5) stated that Compensation practices are positively related to company performance. It was found that compensation had a positive effect on company performance with a coefficient of 0.26 ($p < 0.01$). The result of this study supports the previous studies by Huselid (1995), and Youndt, *et al.* (1996) who found a positive relationship between compensation/ reward practice and company performance.

All the formulated hypotheses are accepted at the significance level of 0.05 except for unionisation. Many employees tend to think that the union is a part of management and that the union has an important role for productivity improvement. The results of this study suggest that the top management is encouraged to increase more employee participation in decision

making that affects the quality of work life of employees. More importantly, all the HRM system components are highly and significantly related to companies' performance. Thus, the results of this study have several implications for pharmaceutical multinational companies in Egypt.

Conclusion

This study investigated the relationship between HRM practices and company performance in the pharmaceutical multinational companies in Egypt. Based on the empirical findings, most of the core processes of HRM, namely, recruitment and selection, performance appraisal, training and development, compensation, except unionisation were found to have a significant and positive impact on company performance. This observation implies that companies should be encouraged to invest more in HRM system improvement to enhance their performance.

The data collected and statistical results suggest that these companies would benefit by establishing some orientation programs for new employees. These introduced programs would provide continuous training for updating employee skills and knowledge. Managers may be rewarded by revising and updating training programs to cope with the changing environment initiatives to improve the quality of training. Clearly, if these companies increase their human capital investment, both by off the job and on the job training, they should be able to improve their performance. In particular, companies should pay more attention to the training programs for upgrading their managers' capabilities. Whilst, the study finds that unionisation has no significant impact on company performance, pharmaceutical multinational companies' managers have to realise that the driving force for improving company performance is to have robust HRM and industrial relations. It is important that companies manage their human resources well to enhance their overall performance for their competitiveness.

This study focused only on multinational pharmaceutical companies in Egypt. The immediate future work directions are to extend the study to local pharmaceutical companies, and to compare the effect of the HRM practices on the companies' performance for local, and multinational pharmaceutical companies in Egypt. Another long term goal is extend this study to companies working in other fields.

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10/5/12