

# **The Influence of Medical Sales Representatives' Work Engagement on Job Satisfaction and Self- Perceived Performance at The Jordanian Pharmaceutical Industry A Structural Equation Modeling Perspective**

*Abeer A. Al- Rabayah, Hani H. Al-Dmour, Amjad A. Abu El-Samen*

## **ABSTRACT**

The purpose of this research was to examine the influence of sales representatives work engagement on their job satisfaction and self perceived performance. Data were collected from 212 medical sales representatives in 12 pharmaceutical companies in Jordan.

It was hypothesized that work engagement is significantly associated with job satisfaction and self perceived performance. Utilizing the structural equation modeling, a model was built to test the hypotheses. The findings of the study supported the hypothesis that work engagement dimensions (vigor, dedication, and absorption) have significant relationships with Job satisfaction and performance. These relationships, however, were not all in the same direction. It was found that being vigorous sales representatives has a positive effect on both satisfaction and self perceived performance. In contrast, sales representatives' dedications and absorption are negatively related to their satisfaction and self perceived performance. Managerial implications and research limitations are also discussed

**Keywords:** Work Engagement, Job Satisfaction, Performance, Medical Representatives.

## **INTRODUCTION**

Work engagement is an emerging concept that is receiving a rising attention at the academic and the professional levels. It is characterized by the passion, energy and discretionary effort that the employees are able to offer in order to develop their organizations.

Work engagement is associated with numerous positive outcomes on the individual and organizational levels. On the individual level, employees' engagement increase their productivity, commitment for organizations, levels of satisfaction and loyalty, as well as reduces the levels of depression, and distress complaints (Cook, 2008). On the organizational level,

work engagement enhances organizational performance. For example, Towers Perrin consultancy group studies revealed that organization with higher levels of employee engagement had higher average revenue growth and outperform their competitors in term of performance and profitability. (Towers Perrin, 2005). Therefore, engaging employees can be the path for any organization toward achieving its competitive advantage

The present study investigates the level of engagement among medical sales representatives and tests if their engagement levels will influence job satisfaction and self perceived performance. Employees who work as medical sales representatives are considered an essential human asset for the pharmaceutical companies. They represent the company's image and are the link between the company and its customers. As the competition between

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pharmaceutical companies increases, acceptable performance is no longer enough. According to Skinner (2000) the bare for acceptable sales force performance can be increased, but reaching the peak of performance can only be achieved when they exert discretionary effort.

Research and development in the pharmaceutical industry is challenging due to its high cost and risks. The Jordanian pharmaceutical companies focus on developing their sales force and to treat them as a strategic human asset in order to compete in the market, especially that personal selling was found as the most influential promotional tool on physicians' and pharmacists' attitudes toward prescribing medications in Jordan. (Toni, 2002). Hence, work engagement is an important strategic tool that may help sales managers at the Jordanian pharmaceutical companies in changing their organization's culture to become more adaptive to the changes and dynamics in the selling environment.

#### **Research Questions and Contribution**

This research will answer the following three questions:

- 1- What is the level of engagement among medical sales representatives at the Jordanian pharmaceutical companies?
- 2- Does medical sales representatives' work engagement influence their job satisfaction?
- 3- Does medical sales representatives' work engagement influence their self-perceived performance?

Regarding the country of Jordan, most of the pharmaceutical marketing studies were more concerned with the marketing mix and doctors' prescription behaviors than with the sales force work attitudes and behaviors. One of the few studies that examined sales representatives' performance at the pharmaceutical industry in Jordan is Musleh (2007) who investigated the factors that influence medical sales representatives' performance at both local and original pharmaceutical

companies. The study found that there were statistically significant differences between generic and multinational pharmaceutical companies when compared together in light of all the independent variables (wages system, evaluation, training, sales target, promotional system and personality traits and skills). The results also indicated that there were significant differences between generic and multinational pharmaceutical companies regarding medical sales Reps' performance. Furthermore, most of the studies that investigated work related attitudes such as organizational commitment and job satisfaction in Jordan were done in the educational and banking sectors.

Abd-Alhamid (1992) aimed at investigating job satisfaction among employees at the Jordanian pharmaceutical factories and to determine its causes. The study concluded that work interrelationships was the main source of employee's satisfaction and that job satisfaction was influenced by the organizational climate, age and gender. On the other hand, there is only one study that investigated work engagement in Jordan. This research has theoretical and managerial implications. The interdisciplinary nature of this research constitutes an important theoretical contribution. Previous research examined the influence of personal factors, role perceptions and organizational variable on sales force job satisfaction and performance. This research extends the factors that influence job satisfaction and performance beyond organizational behavior and examines the influence of motivational theories (i.e. work engagement) in the context of personal selling. Furthermore, this study will enlighten more comprehensive research towards work engagement in other professions and other industries in order to develop the Jordanian human assets, especially that a 5% increase in work engagement forecasts a 0.7% increase in operating margin. (Towers Perrin, 2005)

Indeed, the role of medical sales representatives is important for the pharmaceutical industry on both local and international levels. However, limited research examined their work related attitudes and how they influenced job satisfaction and performance. Furthermore, despite the numerous benefits of work engagement construct it has not been investigated within the personal selling context.

From a managerial perspective, sales representatives' job satisfaction and performance are two important outcomes that are associated with the overall productivity and profitability of the organization. Sales representatives are more susceptible to be dissatisfied than other types of employees, less motivated, and less productive because their role is presented at the interface between the organization and the market. Therefore investigating and studying the factors that influence job satisfaction and performance of the sales force is essential among other things to determine training needs.

### Research Objectives

1. To identify the level of work engagement among medical sales representatives at the Jordanian pharmaceutical companies.
2. To investigate the influence of medical sales representatives' work engagement on job satisfaction.
3. To investigate the influence of medical sales representatives' work engagement on self- perceived performance.
4. To determine the most influential work engagement dimension on medical sales representatives' job satisfaction.
5. To determine the most influential work engagement dimension on medical sales representatives' self- perceived performance.

### Research Model and Hypotheses Development

Figure 1 depicts the research model and the hypothesized relationships among its variables which are all developed based on work engagements, job satisfaction and performance literature as shown in the subsequent sections.

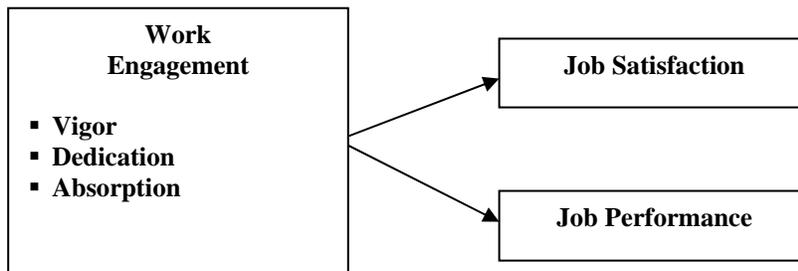


Figure 1 Proposed Research Model

### The Importance of Sales' Representative

Sales representatives play a numerous roles which are important in organization. They uncover customer needs through probing and active listening during sales calls and look for new prospects. Thus, they represent an important source for information. Therefore, they are

required to possess number of traits and skills required to perform these roles. Sales representatives should be physically healthy and vigorous, they should take care of their personal appearance, and be honest, ambitious, active learners and sociable. It is also important for sales representatives to have positive attitudes toward

themselves, their customers and their products, because these attitudes reflect their self confidence and help them to be more effective in achieving their goals (Mullah, 1994; Obeidat et al, 1999).

Enis (1979) classified selling according to the sellers' tasks into five categories: (1) responsive selling where the main sales task is to respond to the buyer's request, (2) trade selling, where sales representatives develop a continuing relationship with customers who buy at predictable intervals, (3) technical selling, where the main task for sales force is to match the organization's products to the buyer's requirements. (4) creative selling, which emphasizes finding new prospects for the product and then moving them through the buying process and (5) missionary selling, where the task here is concerned with influencing the decider in the purchase situation who differs from the ultimate product user.

Pharmaceutical or medical sales representatives who are the population of the current research are an example of missionary selling. They focus on promotional activities that include new product launching, round table discussions, educating physicians and pharmacists on how to use and prescribe medications regarding dose, drug-drug interactions, and side effects. The objectives of these promotional and educational activities are to stimulate demand for the product and to establish long term profitable relationships with physicians who represent the strategic customers for any pharmaceutical company.

Lexchin (1989) stated that pharmaceutical companies in industrial countries consider medical sales representatives as the most important promotional source for their products and that over 50% of their promotional expenditures are devoted to personal selling. Furthermore, physicians ranked medical representatives among the three most useful sources of information about pharmaceutical products (Hustan1993).

Due to the importance of sales representative in pharmaceutical industry, motivating them becomes essential for organizational success. As the cost of hiring and maintaining sales representatives is raising, organization are attempting to increase the productivity through motivation to reach higher performance levels. Failing to motivate sales representatives will lead to low morale which, in turn, will be reflected negatively on their performance (Mullah, 1994).

Another important outcome of sales force motivation is the increase in their work engagement. People do not usually work alone; they work within organization which is characterized by unique working environment, different job demands and a network of relationships. Therefore a certain amount of mental, physical and emotional energy is required from employees during role performance. Work engagement focuses on the psychological experience at work and how it can influence the employees' mental, physical, and emotional presence during work.

Interest in the construct of work engagement goes back to Kahn (1990) who applied a qualitative interview- based research method to generate a theoretical frame work in order to understand the self in role process. He concentrated on the moments in which people bring themselves in or remove themselves out from their task performance. The work of Kahn stems from the previous research in psychology, sociology, and group theory, which showed that people inherently calibrate themselves in roles by applying the pulling and pushing mechanisms to cope with the internal and external conditions.

Kahn (1990) developed the terms personal engagement and personal disengagement to describe the calibration of self in role. He defined personal engagement as harnessing of organization member's selves to their work roles, express themselves physically,

cognitively and emotionally during role performance. In contrast, personal disengagement refers to uncoupling of selves from work roles in which people withdraw and defined themselves physically, cognitively, and emotionally during role performance. Hence, work engagement is a state of mind that fluctuates within individuals who have the freedom to decide whether to bring themselves in during work or detach themselves out. Individuals have the choice to invest varying degrees of their personal energy during role performance.

Schaufeli et al (2002) stated that work related well-being is identified by two dimensions: (1) activation which ranges from exhaustion (low activation) to vigor (high activation), and (2) identification which ranges from cynicism (low identification) to dedication (high identification). Exhaustion and cynicism are direct opposite of vigor and dedication while reduced efficacy and absorption are two distinct construct that are not opposites of each others. Therefore, Schaufeli et al (2002) defined work engagement as a positive fulfilling work related state of mind that is characterized by vigor, dedication and absorption that refers to a persistent affective-cognitive state that is not focused on any particular object, or behavior. Vigor is characterized by high levels of energy and mental resilience during working, the willingness to invest in one's work and being persistent even in facing difficulties. Dedication is characterized by a sense of significance, enthusiasm, inspiration, pride and challenge. Absorption is characterized by being fully concentrated and deeply engrossed in work, where time passes quickly and individuals face difficulties in detaching themselves from work.

Shirom (2003) argued that work engagement is only represented by the vigor dimension that is characterized by the Interrelationships between physical strength,

emotional energy, and cognitive liveliness. Shirom (2003) has only conceptualized vigor but didn't empirically test it, so this approach towards measuring work engagement is still new, thus, needs intensive investigation.

Although a number of researcher developed new scales to measure engagement (Britt, 2005; Thomas, 2007, Rich, 2006), the Utrecht Work Engagement Scale (UWES) that was developed by Schaufeli et al (2002) is still the most widely used scale to measure work engagement in academic research. Therefore it will be used to measure work engagement in this research.

A number of researches have been conducted to investigate the discriminant validity of work engagement and to provide empirical evidence that work engagement is different from other constructs. For example, Rich (2006) found that work engagement, job involvement, job satisfaction, and intrinsic motivation are distinct constructs, also Hallberg and Schaufeli (2006) investigated whether work engagement that is measured by (UWES) could be empirically separated from job involvement and organization commitment. They concluded that work engagement is empirically distinct and it reflects different aspects of work attachment.

Louison (2007) reached similar results regarding work engagement discrimininity and found that work engagement is empirically distinct from job involvement, job satisfaction and organization commitment.

According to Cook (2008), employee loyalty and satisfaction doesn't necessarily mean that employees are engaged. Even though employees may be satisfied and involved with their job, and committed to their organization, they may not be motivated nor demonstrate pride, passion and energy to go the extra mile.

As a conclusion, the main difference between work engagement and other work related constructs is that

work related constructs such as job satisfaction, job involvement and organizational commitment describe the employees perception of their work and their relationships with work from a general perspective while work engagement is specifically concerned with the daily psychological experience of work and to which extent can this experience influence employees to exert their energy during performing work tasks (Kahn, 1990).

### **Work Engagement and Job Satisfaction**

High level of work engagement among the employees has positive outcomes on several organizational dimensions. Saks (2007) found that high level of employee engagement is associated with high retention rate, improved customer services, higher productivity, lower absenteeism, sales growth, profitability, and better shareholder return. Harter et al (2002) conducted a Meta analysis on a data base consisting of 7939 business unites that contains 198514 participants. They found that high levels of engagement are positively related to customer satisfaction, productivity, and reduced employee turnover.

Although previous research focused on the outcomes of job satisfaction, in this research, we examine work engagement as an antecedent to job satisfaction. Our argument is that engaged employees had positive attitudes towards their work. They are involved, committed and loyal. Thus, high level of work engagement is associated with high level of job satisfaction.

It has been shown that job satisfaction is influenced by several organizational factors. Churchill, Ford, Walker (1976) examined the impact of several perceived organizational climate variables on job satisfaction of a cross-section of industrial salesmen. They indicated that job satisfaction can't be explained entirely by company's pay and promotion, because it is also influenced by range of organizational variables and social relationships

which constitute the individual's work environment.

Churchill et al (1976) examined the influence of role perceptions and organizational climate on job satisfaction. The results showed that supervisory variables, authority structure, innovativeness demanded and interpersonal variables explained more than 40% of the variation in total job satisfaction. Therefore, salespeople are more satisfied with relatively high levels of structure, direction and support.

Bagozzi (1978) found that sales person's job satisfaction is a function of the person, the interaction with others in his/her role set, and the situation or environment in which the person must transact. These variables were found to significantly affect job satisfaction. Brown and Peterson (1993) Meta-analysis provided quantitative evidence that gave a fresh insight into job satisfaction research area. Their research revealed that role perceptions have the highest correlation with satisfaction followed by organizational variables and individual differences. These findings suggested that when a sales person's job satisfaction is an important organizational goal, steps to reduce role ambiguity and role conflict have the greatest positive impact.

Babakus et al (1996) emphasized on what Brown and Peterson (1993) recommended. They suggested that in order to increase job satisfaction, managers not only need to reduce sales representative's role ambiguity and role conflict, they also need to increase their perception of organizational support through providing training programs and attractive compensation packages.

We expect that when employees work engagement level increases they will invest more energy in performing their work roles because they feel emotionally, physically and mentally connected to their job and more vigorous in conducting their daily activities that needs strength and stamina. Furthermore,

engaged medical sales representatives are expected to show high job satisfaction as they will be motivated toward achievement and emotionally dedicated to their work.

Based on the previous discussion, we hypothesize that:

**H1:** There is a positive relationship between vigor and medical sales representatives' job satisfaction.

**H2:** There is a positive relationship between dedication and medical sales representatives' job satisfaction.

**H3:** There is a positive relationship between absorption and medical sales representatives' job satisfaction.

#### **Sales Representatives' Job Performance**

Performance represents the bottom line for people at work. Schneider and Schmitt (1986) defined performance as those behaviors and outcomes that observers consider them the necessary standards of excellence that individuals and organizations should achieve. Campbell et al (1970) defined performance as indicative of the value that the organization attribute to particular behaviors which leads to the achievement of important organization goals. Campbell emphasized that performance is not a simple behavior; it is a behavior that is characterized by adding value and significance.

In order to achieve high performance in any work setting, employees should have the right mix of abilities for the job. They should work hard at the task, and they should have the needed support and opportunities to fully utilize their abilities in performing tasks. Therefore organization must design jobs in a way that meet these three requirements of ability, support and effort (Blumberg and Pringle, 1982).

Employees won't achieve consistent high performance unless they are willing to work hard and exert their maximum effort. This willingness decision is

in the hand of the individuals. They make their choice about whether to work hard or not. As a result, managers should create the conditions that stimulate employees to choose the working hard decision (Schermerhorn, 2001).

Churchill, Ford, Hartley and Walker (1985) studied the determinants of sales representatives' performance through conducting a meta-analysis of 116 studies. They found that these determinants are categorized according to their association with sales performance as follows: (1) role variables (role conflict and role ambiguity), (2) selling skill level, (3) motivation, (4) personal factors, (5) aptitude, and (6) organizational and environmental factors

In this research, we anticipate that engaging sales representatives in their work will have positive effect on their performance. Rich (2006) found that employees who exhibited higher levels of job engagement were rated by their supervisors as demonstrating higher levels of task and contextual performance and lower levels of withdrawal behaviors. Additionally, key research findings indicate that companies with higher levels of employee engagement outperform their rivals in term of profitability and performance.

In Jordan, Banihani (2007) investigated the effect of antecedent factors (job characteristics, rewards, recognitions, supervisor support, distributive justice, resources and outside activities) on employee's engagement, and the effect of employee's engagement on corporate performance after measuring the level of engagement among employees in the Jordanian publicly held corporations. The study found that Jordanian employees at publicly held corporations are characterized as not engaged. It also showed that all antecedent factors are predictors of employee engagement, and that corporate performance is significantly affected by employee's engagement. Banihani (2007) also found that there are significant

differences in employee engagement regarding organizational variables (size, experience and type of business) which means that each type of business has a different working environment and requires a different degree of effort from employees. Therefore, the level of work engagement among medical sales representatives and its influence on job satisfaction and performance will be unique and different from other types of professions.

Based on the previous discussion, we hypothesize that

**H4:** There is positive relationship between vigor and medical sales representatives' self-perceived performance.

**H5:** There is a positive relationship between dedication and medical sales representatives' self-perceived performance.

**H6:** There is a positive relationship between absorption and medical sales representatives' self-perceived performance.

#### **Job Satisfaction vs. Job Performance**

When employees like their job and react favorably toward it, their behaviors will reflect positively on the organization. Therefore managers are concerned with increasing job satisfaction among employees (Jegadeesan, 2007).

Performance- satisfaction relationship has showed controversial results. Vroom (1964) indicated that the relationship between job satisfaction and performance is weak, also Iaffaldano and Muchinsky (1985) in their meta-analysis found a weak positive correlation ( $R=0.17$ ) between job satisfaction and performance. On the other hand, many studies found that it is not job satisfaction that produces high performance, but it is high performance that produces job satisfaction. According to Michael (2006) a satisfied worker may not

be a productive worker and a high producer may not be a satisfied worker.

Additionally, Bagozzi (1980b) showed that the positive empirical link between sales representatives' job satisfaction and their performance was most consistent with a path from performance to job satisfaction and not visa versa. Hence, if the management's primary goal is to influence performance they shouldn't assume that influencing sales representatives' job satisfaction will be the suitable approach. For example, Brown and Peterson (1994) revealed that effort has a strong positive direct effect on job satisfaction that is not contingent on sales performance. Exertion of effort in work provides fulfillment of people's intrinsic needs to be competent, effective and efficient which contribute to job satisfaction independently of performance outcome. Furthermore Al-Dmour and Al-Awamlah (2002) examined the effect of transformational and transactional leadership styles of sales managers on sales people job satisfaction and self-perceived performance. The study concluded that transformational leadership style will influence only job satisfaction, while the transactional leadership style of sales managers will only influence self-perceived performance. Therefore sales managers shouldn't assume that increasing job satisfaction by employing transformational leadership style will necessary lead to high performance at the same time. As a result, both styles of leadership are needed at the same time to maintain a high level of job satisfaction and performance.

Despite the beneficial outcomes of work engagement, limited research has examined relationship between engagement level and job satisfaction and performance on the individual level. Also limited research has addressed the uniqueness of different professions regarding engagement levels. Most previous work aimed to add clarity to the engagement construct in

term of its conceptualization, operationalization and discrimininity.

In order to investigate the work engagement level among medical sales representatives and its influence on job satisfaction and self-perceived performance, the three dimensions of vigor, dedication and absorption that Schaufeli et al (2002) developed will be used because these three dimensions are the most widely used in academic research. Furthermore, these three dimensions are more susceptible in the personal selling context as they describe the dynamic self in role process and energy investment.

## RESEARCH METHODOLOGY

### Population and Sample

Population of this study consists of all medical sales representatives at the fifteen Jordanian manufacturing pharmaceutical companies as listed by the Jordanian Association of Manufacturers of Pharmaceuticals and Medical Appliances (JAPM, 2003).

Three companies (Hayat, Al-Kindi, and Joriver) were excluded from the research population because they don't have their own medical sales representatives, and two companies (MID and ACPI) have been recently merged together. Therefore, the remaining eleven companies constitute the final population of the research.

The combined working capital of these companies stands at around US\$ 400 million and accounts for 3.4% of manufacturing employment in Jordan. Subjects of the study are all the medical sales representatives at the Jordanian pharmaceutical companies who hold degrees in pharmacy or a health related specialty. They work on full time bases with a basic salary, benefits and incentives. They are a special type of sales force called missionary representatives, their main duty is to visit physicians on daily bases to promote pharmaceutical products and conduct other promotional activities.

A total number of 270 questionnaires were distributed by hand, considering the number of sales representatives in each company. 216 questionnaires were returned, and checked to detect if there were any missed data. The usable sample was 212 with a response rate of 79%. Data collection took two months.

### Research Design and Measurement Instruments

The research includes three independent variables that represent the three dimensions of work engagement (vigor, dedication, and absorption) and two dependent variables which are sales representative's job satisfaction and sales representatives' self- perceived performance. A likert of five – point scale was used to measure these variables.

### Conceptual and Operational Definitions of Work Engagement

Work engagement is defined as a “positive fulfilling, work related state of mind that is characterized by vigor, dedication and absorption”. (Schaufeli et al, 2002, P.74)

Work engagement is measured by the seventeen item Utrecht Work Engagement Scale (UWES). The engagement items reflect the underlying three dimensions of vigor, dedication and absorption.

**Vigor** is assessed by 6 items that measure activation and energy, mental resilience at work, the willingness to invest effort in one's work, and persistence in the face of difficulties (Schaufeli et al, 2002).

**Dedication** is assessed by 5 items that measure the sense of significance that employees drive from their work, the feeling of enthusiasm and pride about one's job, and the feeling of inspiration and challenge. (Schaufeli et al, 2002)

**Absorption** is assessed by 6 items that measure the degree to which employees are cognitively concentrated and happily engrossed in their work in a persistent way where time passes quickly and the employees have

difficulties with detaching themselves from work. (Schaufeli et al, 2002)

### **Conceptual and Operational Definitions of Job Satisfaction**

Churchill, Ford and Walker (1974) defined sales force job satisfaction as all characteristics of the job itself and the work environment which salesmen find rewarding, fulfilling and satisfying or frustrating and unsatisfying. The measurement of medical sales representative job satisfaction scale was adapted from Al-Dmour and Awamleh (2002). The scale measures the medical sales representatives' affective state relative to served job facets, including the supervisor, the work itself, the company, pay, promotion opportunities, and co-workers.

### **Conceptual and Operational Definition of Self Perceived Performance**

Bagozzi (1980a) defined salesperson's performance as the actual events resulting from their effort. The common indicators of performance are: total volume of sales achieved, new business generation, achieving the targets, improvement over the past year, sales relative to others. Self perceived performance is conceptualized as sales representatives assessment of the quantity and quality of the tasks they accomplish (Schermerhorn, 2001).

The measurement of medical sales representative self perceived performance is based on the previously tested and reliable five Items scale that was designed by Al-Dmour and Awamleh (2002). The scale measures the medical sales representatives' perception regarding the following 5 dimensions: (1) achieving sales targets, (2) sales volume, (3) medical sales representatives' satisfaction with their performance, (4) the company's appreciation for medical sales representatives' achievement, (5) medical sales representative' performance relative to co-workers in their company and

the competitors' companies.

### **Validity and Reliability Testing**

The questionnaire was reviewed by four experts to make sure that each item is measuring exactly what is intended to be measured. Furthermore, a pilot study was conducted on 20 medical sales representatives from different foreign multinational pharmaceutical companies to test the research instrument before distributing it to the whole population. This pilot study gave the researcher an opportunity to discuss each item with the participants in order to modify any vague item and to ensure the full understanding of each item, also difficult words have been changed to easier ones in order to facilitate answering the questions.

The questionnaires were provided to participants in two languages; (Arabic & English) to ensure better understanding of each item upon answering. The respondents indicated the frequency of encountering the situation described by each item using a five point scale which ranges from never (1) to always (5). Table (1) in the appendix shows the items for each variable in the study

The psychometric properties of the study constructs were first examined using exploratory factor analysis (EFA) and reliability analysis. After examining the item-to-total correlation matrices for the variables, it was suggested to sequentially drop those items with low commonalities and low item- to - total correlations. These items are (I am always preserving in my work even when things do not go well, my work inspires me, time flies when I am at work, I am immersed in my work, and my selling performance is always appreciated from the company's management).

The EFA on the vigor five items indicated a single-factor solution where the five items loaded on one factor with factors loading greater than 0.7, and the explained variance of the single factor solution was 0.63. The

coefficient alpha for the five-item vigor scale was 85. For the dedication four-item scale, the EFA showed a single-factor solution with loadings greater than 0.7, and the explained variance of the single factor solution was 0.65. The coefficient alpha for the four-item dedication scale was 82. For the four-item absorption scale, the EFA showed a single-factor solution with loadings greater than 0.7, and the explained variance of the single factor solution was 0.58. The coefficient alpha for the four-item absorption scale was 76. Regarding job satisfaction, the EFA showed a single-factor solution with loadings greater than 0.7, and the explained variance of the single factor solution was 0.58. The coefficient alpha for the six-item job satisfaction scale was 86. Finally, for perceived job performance, the EFA showed a single-factor solution with loadings greater than 0.7, and the explained variance of the single factor solution was 0.63. The coefficient alpha for the four-item absorption scale was 80.

#### **Assessment of Measurement Model**

The measurement model was estimated using LISREL (8.5), which is a soft ware for structural equation modeling. The model has excellent fit indexes ( $\chi^2 = 541.7$ ,  $df = 242$ ,  $CFI = 0.9$ ,  $RMSEA = 0.07$ , and model  $AIC = 657.7$ ). Additional evidence provided by or derived from the CFA suggests that the resulting measures are reliable and valid (Refer to Table 2 for details.) More specifically, the adequate composite reliabilities and average variances extracted provide evidence in support of the measures' reliability (Fornell & Larcker, 1981; Gerbing & Anderson, 1988). Furthermore, indication of the measures' convergent validity is provided by the fact that all factor loadings are significant and that the scales exhibit high levels of internal consistency (Gerbing & Anderson, 1988; Fornell & Larcker, 1981).

## **ANALYSES AND RESULTS**

### **Hypotheses Testing: Structural Equation Modeling**

Multiple indicators were employed for the endogenous and exogenous variables in the proposed model. A structural equation model was estimated using structural equation modeling using LISREL 8.5. As can be seen in figure 2 below, paths were created from each of the exogenous variables (vigor, dedication, and absorption) to each of the endogenous variables (job satisfaction and performance). The results showed adequate model fit ( $X^2 = 622.01$ ;  $df = 243$ ,  $CFI = 0.85$ ,  $RMSEA = 0.08$ ).

#### **The Relationship between Work Engagement and Job Satisfaction**

Regarding the hypothesized relationships between work engagement and job satisfaction, the results showed that vigor, dedication and absorption have a significant relationship with job satisfaction. These relationships, however, are not in same directions. For example, vigor was found to have a positive relationship with job satisfaction ( $t = 3.53$ ,  $p < 0.05$ ). Thus, supported hypothesis H1. Dedication and absorption have a negative relationship with job satisfaction ( $t = -2.22$ , and  $-2.55$  respectively,  $p < 0.05$ ), thus, rejecting H2 and H3.

#### **The Relationship between Work Engagement and Self- Perceived Performance**

The results showed that vigor and dedication have a significant relationship with self perceived performance. Vigor was found to have a positive relationship with self perceived performance ( $t = 2.92$ ,  $p < 0.05$ ), thus, supported hypothesis H4. Dedication was found to have a negative relationship with self perceived performance ( $t = -2.12$ ,  $p < 0.05$ ), thus, rejecting H5. Finally, a partial support was found for H6; as the relationship between

absorption and self perceived performance was marginally significant ( $t = -1.88, p < 0.1$ ).

**Table 2**

<b>Construct Measures and Validity</b>				
<i>Factors</i>	<i>Items</i>	<i>Std Loading</i>	<i>Composite Relibility</i>	<i>AVE</i>
<b>Vigor</b>	I feel I'm bursting with energy when doing my work.	0.72	0.85	0.54
	When doing my work, I feel strong and vigorous	0.80		
	When I get up in the morning, I feel I like going to work.	0.57		
	I can continue working for very long time	0.77		
	At my work, I am very resilient, mentally	0.79		
<b>Dedication</b>	I find my work filled with meaning and has a purpose	0.73	0.96	0.62
	I am enthusiastic about my work	0.71		
	I am proud of the work that I do	0.77		
	I find my work challenging	0.72		
<b>Absorption</b>	While I am working, I forget everything else around me.	0.67	0.76	0.45
	I feel happy when I am working intensely and seriously	0.61		
	I get carried away when I'm working	0.71		
	I find it difficult to detach myself from my work	0.68		
<b>Job Satisfaction</b>	I feel that my supervisor and coworkers care about me as I represent an important person to them.	0.66	0.87	0.34
	My work offers me the chance to get financial rewards and recognitions.	0.70		
	My direct supervisor discusses with me, the issues that are important in developing my career.	0.66		
	Objectively speaking, I think that my salary is suitable for me.	0.67		
	I think that my company takes my career needs into consideration.	0.66		
	I think I have a fair chance to be promoted in my company.	0.80		
<b>Self Perceived Performance</b>	I consider my selling performance at the company better than the average performance of my co-workers.	0.71	0.81	0.60
	I always achieve my sales target.	0.83		
	The average sales volume that I achieve is better than what other medical sales representatives achieve in a competitor company.	0.72		
	I am satisfied with my selling performance.	0.60		

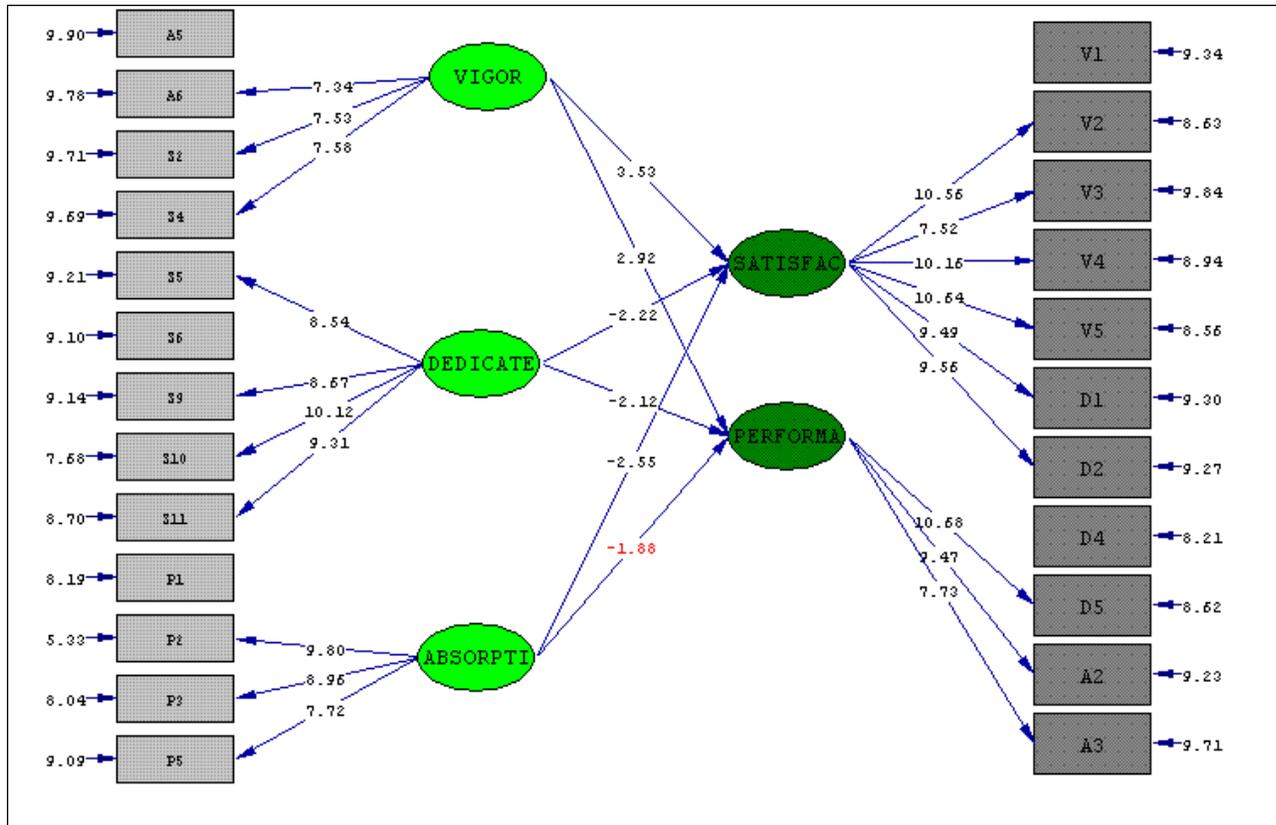


Figure 2: The Relationship between Work Engagement, Job Satisfaction and Self Perceived Performance.

**DISCUSSION**

The results supported the prediction that work engagement dimensions (vigor, dedication, and absorption) have significant relationships with Job satisfaction and performance. These relationships, however, were not all at the same direction. We found that vigor has a positive relationship with both satisfaction and self perceived performance, supporting H1 and H4. This finding is well supported in the literature that report found that high level of employee engagement is associated with high retention rate and higher productivity (Hater et al. 2003; Saks. 2007).

In contrary to what we hypothesized, we found the effect of sales representatives' dedication and absorption on job satisfaction and self perceived performance to be negative, thus, rejecting H2, H3, H5, and H6. The results

can be explained through the absence of relationship marketing practices with the sales representatives in Jordanian medical companies. Morgan and Hunt (1994) asserted that trust encourages cooperative behavior, reduces conflict, and links employees' positive perceptions to their organizations, which in turn, improve employee job satisfaction in their company. It is possible that the sales' representatives dedicate themselves and feel attached to their work, but its normal to change careers/jobs because of expected reward, working conditions, poor managerial behavior due to the lack of trust between the sales representatives and their organizations. This conclusion is supported in the marketing literature; as individuals prefer trusting workplace relationships; thus, employees dedicate themselves to their company as long as they enjoy

trusting relationships with their managers (Morgan and Hunt, 1994).

### **MANAGERIAL IMPLICATIONS**

Work engaged employees are motivated to work with passion and to invest their physical, emotional and mental energy during role performance. Therefore, they are inclined to build a long-term relationship with their customers who will, in turn, serve a reference for other potential customers in the future.

To ensure employees' work engagement, internal marketing has an important role in delivering the importance of work engagement among employees. Therefore organizations should provide work engagement training to employees from all departments in order to create awareness and achieve consistency among all employees which will make the customers' transactions experience with the organization more efficient and effective. Finally, work engagement can be considered a strategic tool companies use to differentiate themselves in the market through their engaged sales representatives who will be more vigorous, dedicated and absorbed during selling and detailing than the disengaged ones.

Based on the findings of this research, there are several recommendations for sales managers, supervisors and human resources departments at the Jordanian pharmaceutical companies. These recommendations are:

1- Managers should measure the level of work engagement among medical sales representatives on regular bases to detect if they are engaged or not.

2- Managers should communicate effectively with medical sales representatives to understand their job needs.

3- Managers at Jordanian pharmaceutical companies should review the compensation system and career development plans of their medical sales

representatives, because the items regarding satisfaction with pay and promotion opportunities have low mean score relative to other items.

4- Human resource managers at the Jordanian pharmaceutical companies should conduct training sessions for managers from different department and levels about work engagement and its benefits in order to clear the importance of this construct. Furthermore, each pharmaceutical company should develop a work engagement strategy and to determine the factors that lead to high level of engagement among the sales force in order to increase their job satisfaction level and performance.

5- Managers should select vigorous and dedicated candidates when they want to recruit medical sales representatives because these are the two most influential work engagement dimensions on job satisfaction. In contrast, only absorptive medical sales representatives have the best performance.

### **RESEARCH LIMITATIONS**

Research limitations exist as a result of trade-off in research design decisions. Although our research model is developed based on theoretical grounds, its generalizability is limited to the pharmaceutical industry in Jordan as a single industry. A potential area of future research is to replicate our model on other industries in Jordan, developing countries and even on other developed countries to test its generalizability. Further, comparative or cross-cultural studies are highly encouraged. Also, only one facet of work engagement was found to be positively related to satisfaction and performance. A future area of research is to examine the effect of potential process variables such as employees trust and commitment in relation to work engagement and job satisfaction and performance.

**Table 1: The Study Variables and Their Represented Items**

<b>Vigor</b>
I feel I 'm bursting with energy when doing my work.
When doing my work, I feel strong and vigorous
When I get up in the morning, I feel I like going to work.
I can continue working for very long time
At my work, I am very resilient, mentally
I am always persevering in my work even when things do not go well.
<b>Dedication</b>
I find my work filled with meaning and has a purpose
I am enthusiastic about my work
My work inspires me
I am proud of the work that I do
I find my work challenging
<b>Absorption</b>
Time flies when I'm working
While I am working, I forget everything else around me.
I feel happy when I am working intensely and seriously
I am immersed in my work
I get carried away when I'm working
I find it difficult to detach myself from my work
<b>Job Satisfaction</b>
I feel that my supervisor and coworkers care about me as I represent an important person to them.
My work offers me the chance to get financial rewards and recognitions.
My direct supervisor discusses with me, the issues that are important in developing my career.
Objectively speaking, I think that my salary is suitable for me.
I think that my company takes my career needs into consideration.
I think I have a fair chance to be promoted in my company.
<b>Self-Perceived Performance</b>
I consider my selling performance at the company better than the average performance of my co-workers.
I always achieve my sales target.
The average sales volume that I achieve is better than what other medical sales representatives achieve in a competitor company.
My selling performance is always appreciated from the company's management
I am satisfied with my selling performance.

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