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**Factors Affecting Medical Representatives' Performance in Both
Generic and Non- Generic Pharmaceutical Companies In Jordan: A
Comparative Study.**

By

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Supervisor

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**This Thesis was Submitted in Partial Fulfilment of the Requirements
for the Master's Degree of Marketing**

**Faculty of Graduate Studies
The University of Jordan**

May, 2007

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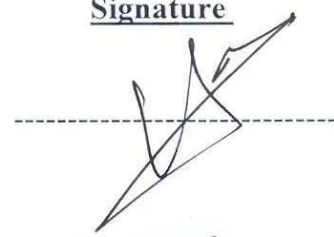
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DEDICATION

To my angel for everMy Mother

To my faithful friend.....My Father

To my soul mate.....My husband

To my lovely family

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**Great thanks to every one who supported and helped me to
accomplish my thesis.**

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me all through the way.**

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LIST OF ABBREVIATIONS

ACPC	Arab Center for Pharmaceuticals and Chemicals
API	Amman Pharmaceutical Industries Co.
APM	The Arab Pharmaceutical Manufacturing Co. Ltd.
AMIR	Achievement of Market-friendly Initiatives and Results Program
ASE	Amman Stock Exchange
CRO	Clinical Research Organizations
DAD	Dar Al Dawa Development & Investment Co.
FDA	Food & Drug Administration
FDI	Foreign Direct Investment
GAFTA	Greater Arab Free Trade Agreement
GDP	Gross Domestic Product
IPR	Intellectual Property Rights
IPRC	International Pharmaceutical Research Center
JAPM	Jordanian Association of Pharmaceutical Manufacturers
Joriver	Jordan River Pharmaceutical Industries L.L.C.
Joswe	Jordan Sweden Medical and Sterilization Co.
JPM	The Jordanian Pharmaceutical Manufacturing Medical Equipment Co. Ltd.
JUSFTA	Jordan-United States Free Trade Agreement
MENA	Middle East and North Africa (Region)
Mid Pharma	Middle East Pharmaceutical and Chemical Industries and Medical Appliances Co.
MOH	(Jordan) Ministry of Health
PIC	Pharma International Co.
R& D	Research and Development
RAM	Ram Pharmaceutical Industries Co. Ltd.
TBT	Technical Barriers to Trade
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UK	United Kingdom
UP	United Pharmaceuticals Co. Ltd.
US	United States
WTO	World Trade Organization

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**FACTORS AFFECTING MEDICAL REPRESENTATIVES'
PERFORMANCE IN BOTH GENERIC AND NON- GENERIC
PHARMACEUTICAL COMPANIES IN JORDAN: A
COMPARATIVE STUDY.**

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ABSTRACT

Sales representatives (Reps) play a central role in many companies, spanning the boundary between the selling firm and the customer. For some customers the salesperson is virtually synonymous with the firm.

The research investigated the factors affecting the pharmaceutical medical sales Reps' performance in both generic and multinational pharmaceutical manufacturing companies in the Jordanian market, and at the same time to find if there are any differences between the generic and multinational companies regarding the issue of medical sales Reps' performance.

The population were the medical sales Reps in Jordanian pharmaceutical manufacturing companies and multinational (non- generic, research) pharmaceutical

companies. The final selected sample where from the data was collected was fifty seven medical sales Reps from eight generic and sixty seven medical sales Reps from ten multinational pharmaceutical companies. The data collected were analyzed using: one way ANOVA, Independent- sample t- test, linear and multiple regression.

The research resulted in finding statistically significant differences between generic and multinational pharmaceutical companies when compared together in light of all independent variables (wages system, evaluation, training, sales target, promotional system and personality traits and skills). And when comparing each independent variable alone in both generic and multinational pharmaceutical companies; only wages system and training schedules showed differences. Also the results indicated that there are significant differences between generic and multinational pharmaceutical companies regarding medical sales Reps' performance.

And when the effects between the independent and dependent variables were studied for generic companies; there was positive effects only between the personality traits and the performance of the medical sales Reps (dependent variable).

The researcher recommended that the generic pharmaceutical companies should design a fair and adequate wages system, and to develop planned training schedules covering all medical sales reps needs.

Chapter One

Introduction

1- 1 Introduction

1- 1- 1 Problem definition

1- 1- 2 Research importance

1- 1- 3 Research objectives

1- 1- 4 Research limitation

1- 2 The theoretical framework

1- 2- 1 Literature review

1- 2- 2 Theoretical framework

1- 2- 3 Operational definition

1- 3 Hypotheses

1- 1 Introduction

Despite the dramatic influences of the pharmaceutical industry on the economical situation in Jordan in the current decade; many obstacles are still standing ahead of this development.

Sales representatives (Reps) play a central role in many companies, spanning the boundary between the selling firm and the customer. For some customers the salesperson is virtually synonymous with the firm (BenMoussa, 2005). Medical sales Reps are salesmen responsible for promoting pharmaceutical products to doctors of different specialties, leading physicians to prescribe the drug and increase the sales of the company. Medical sales Reps needs and requirements change through years, the more the need increases for highly qualified medical sales Reps, the more the need to satisfy them.

There are two major kinds of pharmaceutical companies in Jordan. The first one is the non- generic (multinational, research, foreign) companies and the second is the generic (local, Jordanian) companies. The multinational companies are originator companies in the whole world such as: Merk, AstraZeneca, Roche and many others. As for the generic (local) companies in Jordan, they just imitate the originator products when the patencies of the products are expired.

Most modern drugs are developed by research in the laboratories of a multinational pharmaceutical company. While generic pharmaceutical companies produce generic products where the patent of the brand leaders has expired, making it possible for these new manufacturers to make and sell the drug (Taylor & Harding, 2001).

According to Lopez & Reisner (2001) when a brand name drug's patent expires, other pharmaceutical companies than the originator (multinational company) can produce the same active chemical compound and sell the drug under its generic name.

There are many generic pharmaceutical companies in Jordan, almost 15 pharmaceutical manufacturing companies are present and they all are competing over the same imitated products. Generic companies do not have the required resources to develop new products, especially the development of new active ingredients which are indicated for special disease. Such developments require high investment (millions of dollars) that generic companies cannot afford (JAPM, 2004).

Personal selling/ Detailing is generally accepted to be the most effective form of pharmaceutical promotion (Smith, 1991). This research will concentrate on the performance of the medical sales Reps and the factors influencing them. These factors may affect their attitude in achieving targets and profits. It is suggested that these factors either facilitate or hinder their performance. It is worth noting here that not much research has been conducted to tackle this issue and the environment surrounding and affecting the medical sales Rep's performance in the pharmaceutical field.

1- 1- 1 Problem definition:

Research problem rises from the fact that there is a noticed shortage in the number of highly qualified human resources to practice medical sales Rep job. Almost all generic companies in Jordan face a real difficulty and challenging issue in hiring and selecting the proper persons that fit well in the position, noting that pharmaceutical company's marketing departments are still growing and need highly applicable system to direct the effectiveness of hiring the perfect medical sales Rep.

Generally speaking, the ongoing process of hiring persons in the pharmaceutical companies depends mostly on the scientific background of the candidates. This criterion of recruitment ignores other important factors that should be taken into consideration such as the candidates potentials in marketing (i.e. acquired experience, knowledge and training).

This problem forces the pharmaceutical companies to face many challenges; the major threat lies in the fact that these companies have high turn over rates in their medical sales Reps. Kotler (2003) clarifies that the average annual turnover rate for all industries is almost 20 percent. And when a salesperson quits, the cost of finding and training a new person- plus the cost of lost sales- can be very high. A sales force with many new people is less productive.

On the other hand, the performance of the medical sales Reps in the pharmaceutical companies varies between multinational and the generic company. Thus, the research was conducted to define the major factors influencing the medical sales Reps' performance regarding their company's environment. In addition, by identifying these influencing factors which can be taken into consideration by all pharmaceutical companies in the future as well as be used to assist managers to take proper decisions in order to organize and upgrade the efficiency and performance of medical sales Reps.

The research problem can be concluded in the following questions:

1- To what extend does the company's package; wages system, evaluation system, training schedules, sales target and promotional system offered to its medical sales Reps affect their performance?

2- What are the major influences of the medical sales Rep's personal traits on their performance?

3- Are there any differences between medical sales Reps' performance in both generic and multinational pharmaceutical companies?

1- 1- 2 Research importance:

The importance of this research stems from the fact that it might be the only one that handles the factors affecting the medical sales Reps' performance in the pharmaceutical companies in both generic and multinational companies in Jordan.

Other previous studies have tackled mainly the marketing field of pharmaceutical companies but without handling such factors regarding medical sales Reps' performance which are the basic elements in the development of all pharmaceutical companies.

1- 1- 3 Research objectives:

The research objectives can be stated by emphasizing these points:

- Study the factors that affect the pharmaceutical medical sales Reps' performance in both generic and multinational pharmaceutical manufacturing companies in the Jordanian market.
- Find if there are any differences between the generic and multinational companies regarding the issue of medical sales Reps' performance.

1- 1- 4 Research limitations:

Pharmaceutical companies in Jordan are high in numbers; each company has its own system and is managed by different principles and legislations. Many limitations faced the researcher in the process of collecting the data, such as:

1- Pharmaceutical companies are located in scattered areas; inside and outside Amman, and some of them are far away.

2- Many pharmaceutical companies have rejected to fulfill the questionnaire due to the company policy, and some of them took almost weeks to reject fulfillment of the questionnaires.

3- Due to the reason that medical sales Reps are not available each day of the week in the office, the questionnaires were left with the marketing manager until their medical sales Reps complete it.

4- There were no specific books or references about the Jordanian pharmaceutical industry.

1- 2 The theoretical framework:

Medical sales Reps are the important human capital of any pharmaceutical manufacturing companies in Jordan. They represent and reflect the image of their company. Each pharmaceutical company should have special system in recruiting and dealing with Medical sales Reps.

Despite all these facts mentioned, no specific study has handled this issue in Jordan. Many studies in pharmaceutical marketing have concentrated on promotion to doctors, export markets, and marketing mix but studies that focus on marketing concerning pharmaceutical industry are very few.

1- 2- 1 Literature review:

Despite the fact that Medical sales Reps are the most important factor in promoting pharmaceutical products in Jordan, not many studies have focused on Medical sales Reps. On the other hand, there have been few studies (as below) that handled pharmaceutical industry in general:

Leader indicating data (2004), concluded that Reps who consistently get beyond the waiting room have built a reputation for providing physicians with valuable product information. A recently released survey of 410 doctors conducted by World Health quantifies what many already suspect: relationships matter. When deciding whether to see a Rep, doctors in several practice areas rated their relationships with a Rep "extremely important," more so than the product he or she detailed. The manufacturer's reputation was the least important factor, across the board.

Friedman (2002) has shown that the management learned that managed care did require a focused sales effort, however this was in addition to, and not instead of, the detailing effort providing by a large field. Organization managed care demanded more, not less, sales effort, and more complex, not simpler, sales management structure. As the field force has remained the most potent and expensive instruments of the pharmaceutical company, it is essential that investment in this tool be optimised.

Ibrahim (2002) tried to emphasize the influence of promotional policies on both doctors and pharmacist behaviors toward the use of generic drugs in Jordan. He studied the influence of each promotional policy on the behavior of the doctors and pharmacists toward prescribing the generic products.

Al-Dmour, and Al-Awamleh (2002) examined the effects of transformational and transactional leadership of sales managers on sales peoples self- perceived satisfaction and performance. The moderators were: self-efficacy, self-esteem and

leadership deposition of salespeople. Results provided clear support for the belief that transformational and transactional leadership styles are not opposite ends of a continuum, but they have a closer relation. In addition, leaders to be successful they need to exhibit the two aspects of both at the same time.

Lloyd, and Newell (2001) presented research findings from a case study of a company's pharmaceutical sales force working in the United Kingdom and Ireland. They explore how changes in the nature of the customer and the competitive environment are affecting the way management are structuring the work process and the nature of skills required. A central focus is whether these changes are pushing management to increase the skills and knowledge of sales Reps or are encouraging the use of a more rigid and less autonomous form of work organization.

The study concluded that the changing natures of the customer and developments in the pharmaceutical industry have led management at Pharma to reorganize the work of their sales force. The policies adopted have emphasized the technical competence of sales Reps' performance (product knowledge, sales planning, etc.), rather than the softer elements (behaviour, attitudes and appearance) of the worker-customer relationship found in many other studies.

Tashtosh (2000) emphasized that Jordan pharmaceutical companies are still having reliable marketing information system. He recommended delegating responsibilities to marketing department within local drug manufacturing company that make it possible for them to plan, implement and make use of existed market opportunities in local and global drug markets.

Muneer (1999) studied the factors affecting salesmen in insurance companies in Jordan. The aim of the study was to develop a database for helping the management of insurance company in Jordan to select and appoint sales persons to be employed in the

future. The independent variables were: demographic characteristics, personality traits and organizational factors while the dependent variable was the level of performance of sales person working in insurance companies. The study aimed to pay attention to the setting up and organizing of marketing department. He recommended many things to be implemented concerning salesmen, such as: involving them in taking responsibilities of their own actions, enhancing their perception, and offering them fair and proper wages.

Makatef (1998) concentrated on HIKMA pharmaceutical company in Jordan. She found out that marketing job is one of the most needed jobs in any foundation. In addition, marketing plays a major role in promoting and marketing pharmaceutical products more successfully. She showed that HIKMA pharmaceutical manufacturing company has a good marketing department which uses marketing research concerning new products development and takes the responsibility for training their field force team.

Mua'lla (1997) indicated in his study that the salespersons in insurance companies in Jordan perceive the requirements for success in their career. Also the findings showed that there were direct effects by the salespersons' past experience and the number of training programs they have attended on their perception of the success requirements for their career. This means that the management in the insurance companies in Jordan have to give training more concern and importance. This will contribute in developing and improving their selling skills and will increase the awareness of their career and in turn contribute to their role clarity, and the challenges and opportunities manifested in.

Brown, and Peterson (1994) studied the effect of working hard and smart on the accomplishments and performance of sales Reps. They concluded that working hard and smart increases the performance of sales Reps. They also studied many other

factors and concluded that the desire to compete with others and the ability to perform the tasks have a positive influence on performance. On the other hand, the role conflicts have no negative influence on the performance. The researchers recommended the necessity of using these results by the managers in choosing, training, motivating and evaluating their medical sales Reps. They also recommended that many other factors should be studied in the future.

Mujahed (1992) studied the relation between job satisfaction of the workers in the pharmaceutical factories and job performance, including the following factors:

Company policy, quality of supervisors, work relations, work benefits and work conditions

Peterson (1990) emphasized the factors that make the training of sales force become successful and these factors are:

Set clear objectives for the training, the contents are suitable, methods and technique of the training and qualification of trainer.

According to all mentioned studies, no study has focused directly on Medical sales Reps in the pharmaceutical manufacturing companies in Jordan. Only one study dealt with sales persons in insurance companies, while all other studies included unrelated issues. Most studies emphasized that marketing is the major issue in pharmaceutical companies. Since Medical sales Reps are one of the major tools of marketing in the pharmaceutical companies, this research will concentrate on the major factors that affect the medical sales Reps' performance.

1- 2- 2 Theoretical framework:

The dependent variable is the medical sales Reps' performance, which is the primary concern, and can be explained by two major independent variables are:

1- Company package: wages system, evaluation system, training schedules, sales target and promotional system.

2- Personality traits: Good listener, commitment to job responsibilities, hard-worker, honest, enthusiastic, good communicator, persistent, self- confident, convincing and dealing with different personalities.

The company package offered to the medical sales Reps is expected to have an effect on their performance. The greater the wages system provided by the pharmaceutical company to its medical sales Reps, the higher is their performance. When medical's wages system is satisfying their needs and requirements they surely would motivate them to work harder and their performance would be raised. Then the highly effective evaluation system applied by the company the higher the performance of the medical sales Rep. Also if medical sales Reps have less training this would lead to lower performance because medical sales Reps should always regularly train to follow up any kind of changes or new developments, so they can adapt the changing environment. Then when the sale targets are developed in a more reasonable way, the higher is the performance of medical sales Reps; when the company set unreasonable target then the medical sales Reps would be frustrated. That would definitely affect their performance. Finally the higher the organizing of the promotional system applied by the company, the higher the motivation of the medical sales Reps would be. If the promotional system applied is highly organized and can offer the medical sales Reps better flexibility and control over their daily work, they will get higher results.

At the same time, the Personality traits of the medical sales Reps also have an impact on their performance. The higher the honesty, enthusiastic, convincing and persistence of the medical sales Reps, the higher their performance will be. If the medical sales Reps are good listener and good communicator and have high

commitment to their responsibilities and are able to deal with different personalities of doctors, their performance is expected to be higher. Also the higher the self confidence and the harder the work is presented by the medical sales Reps the better their performance will be.

The schematic diagram (1) below shows the relationships between the independent and dependent variables.

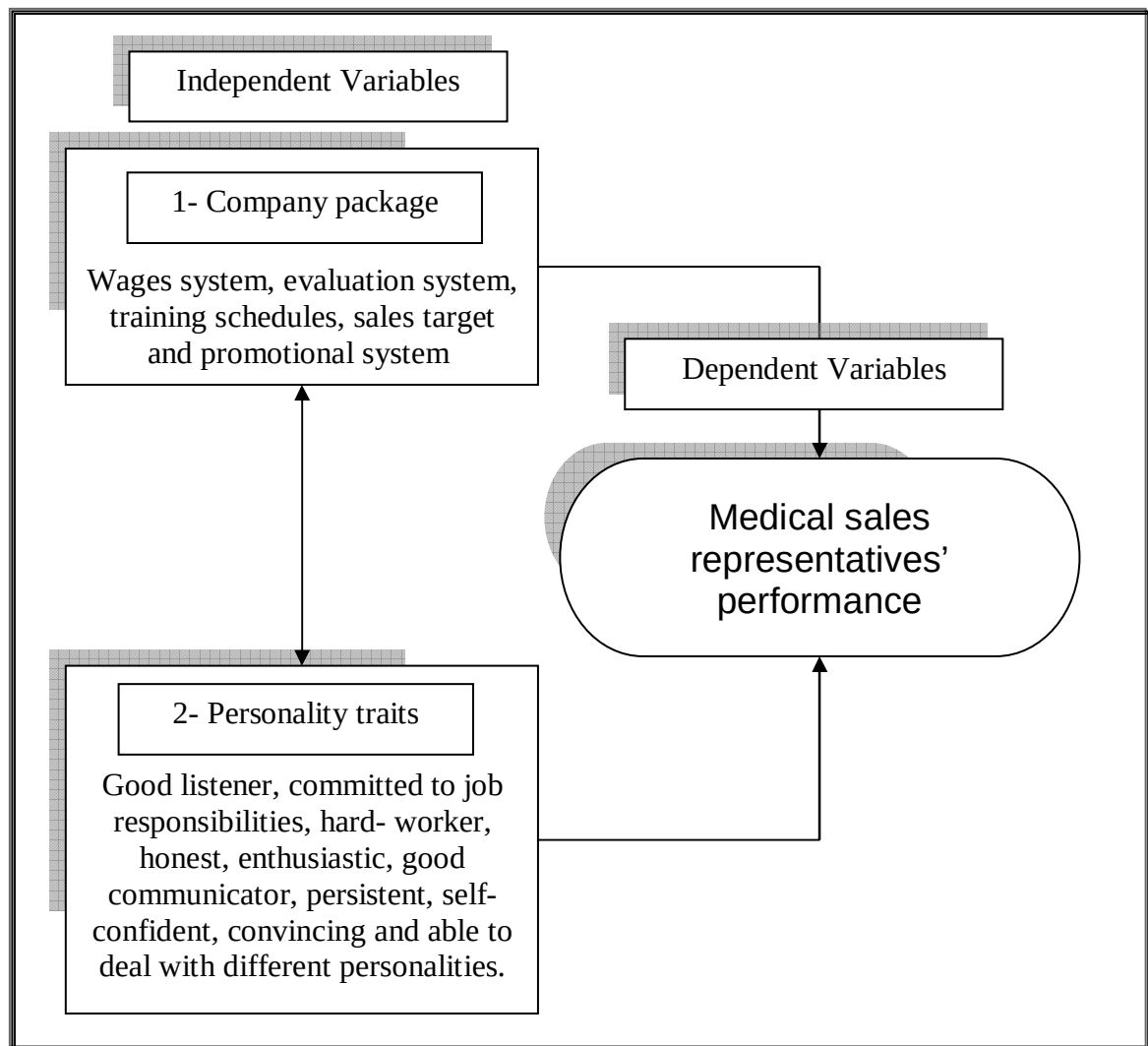


Figure 1. Relationship between the independent and dependent variables

Prepared by the researcher.

1- 2- 3 Operational definition:

The research included two independent variables, which are:

1- **Company package:** it was measured by the following dimensions:

- **Wages system:** Wage (or more commonly wages) signifies a quantity of money paid for a quantity of work done (Wikipedia encyclopedia, 2007). And it was measured by the salary system (fixed), car allowances and the incentive system (quarterly or yearly).

- **Evaluation system:** is the systematic determination of merit, worth, and significance of something or someone. Evaluation often is used to characterize and apprise subjects of interest in a wide range of human enterprises, and other human services (Wikipedia encyclopedia, 2007).

- **Training schedules:** refers to the acquisition of knowledge, skills, and competencies as a result of the teaching of vocational or practical skills and knowledge that relates to specific useful skills (Wikipedia encyclopedia, 2007).

Training was measured by many factors such as the location of the training, the qualification of the trainer, and the knowledge handled in the training.

- **Sales target:** is the amount of a product a company expects to sell during a specific period at a specific level of marketing activities (Pride & Ferrell, 2003).

These targets are estimated every year and can be set by the managers themselves with the participation of their medical sales Reps.

- **Promotional system:** is the communication with individuals, groups, or organizations to directly or indirectly facilitate exchanges by influencing audience members to accept an organization's products (Pride & Ferrell, 2003).

The system can have a direct effect on the performance depending on many factors such as: area distribution, type of products promoted, type of coverage, and the promotional tools used.

2- Personality traits: in order to success, many medical sales Reps should have a variety of personality traits. According to Mua'lla (1997) personality traits can be classified into two groups: personality demands and professional demands.

According to Pride & Ferrell (2003) personality is defined as a set of internal traits and distinctive behavioral tendencies that result in consistent patterns of behavior in certain situation.

The research included ten personality traits: good listener, commitment to job responsibilities, hard- worker, honesty, enthusiasm, good communicator, persistence, self- confidence, convince and dealing with different personalities.

The dependent variable was the performance of medical sales Reps, and was measured by calculating sales analysis (the yearly achieved sales) of the medical sales Reps in order to evaluate their performance (Pride & Ferrell, 2003).

Table (1) shows the scale of measurements of the first independent variable (company package): wages system, evaluation system, training schedule, sales target system and promotional system of the company.

Table 1. Independent variable: company package

Concept	Dimension	Elements	Questions in the questionnaire
Company Package	Wages system	Salary system	Question A (6), B (1- 4)
		Car allowances	Question A (7), B (5)
		Incentives system	Question B (6)
	Evaluation (appraisal) system	Effect of the evaluation system	Question B (7- 8)
		Annual evaluation system	Question C (1- 3)
	Training schedule	Location of training	Question C (4)
		Scientific& marketing training	Question C (5- 11)
		Scientific knowledge training	Question C (12- 14)
		Marketing& selling skills training	Question C (15- 16)
	Sales targets	Target sales estimation per year	Question C (17- 20)
		Targets are easily or hardly achieved	Question C (21- 23)
	Promotional system	Distribution of areas to medical sales Reps	Question C (24- 25)
		Promotional tools used	Question C (26- 27)
		Types of products promoted	Question C (28- 30)
		Doctors coverage by each medical sales Rep.	Question B (9- 12)

Table (2) shows the scale of measurements of the second independent variable (Personality traits): good listener, commitment to job responsibilities, hard- worker, honesty, enthusiasm, good communicator, persistence, self- confidence, convince and dealing with different personalities.

Table 2. Independent variable: Personality traits

Concept	Dimension	Questions in the questionnaire
Personality traits	Good listener	Question D (1)
	Committed to job responsibilities	Question D (2)
	Hard- worker	Question D (3)
	Honest	Question D (4)

	Enthusiastic	Question D (5)
	Good communicator	Question D (6)
	Persistent	Question D (7)
	Self- confident	Question D (8)
	Convincing	Question D (9)
	Able to deal with different personalities (flexible)	Question D (10)

Table (3) shows the scale of measurements of the dependent variable (medical sales Reps' performance):

Table 3. Dependent variable: Medical sales Reps' performance

Concept	Dimension	Elements	Questions in the questionnaire
Medical sales Reps' performance	Sales target	Estimated sales target (value) in 2006	Question E (1)
	Achievements	Total achievement (%) in 2005 (last 12 months)	Question E (2)
		Average total achievements (%)	Question E (3)
		Self- assessment	Question E (4)

1- 3 Hypotheses:

It would be better to classify the hypotheses of the research into five groups as follows:

1- 3- 1 Group one hypotheses:

Group one hypotheses are relevant to the differences between generic and multinational companies regarding all independent variables together and each independent variable apart and they includes:

Hypothesis one: There are no significant differences between generic and multinational pharmaceutical companies regarding all independent variables together.

Hypothesis two: There are no significant differences between generic and multinational companies regarding each independent variable apart (wages system, evaluation, training, sales target, promotional system and personality traits), this can be defined by the following sub hypothesis:

1- There are no significant differences between generic and multinational companies regarding wages system.

2- There are no significant differences between generic and multinational companies regarding evaluation system.

3- There are no significant differences between generic and multinational companies regarding training schedule.

4- There are no significant differences between generic and multinational companies regarding sales target.

5- There are no significant differences between generic and multinational companies regarding promotional system.

6- There are no significant differences between generic and multinational companies regarding personality traits.

1- 3- 2 Group two hypotheses:

Group two hypothesis is relevant to the differences between generic and multinational companies regarding the performance of medical sales Reps:

Hypothesis one: There are no significant differences between generic and multinational pharmaceutical companies regarding their medical sales Reps' performance.

1- 3- 3 Group three hypotheses:

Group three hypotheses are relevant to the effect between independent variables (wages system, evaluation, training, sales target, promotional system and personality traits) and the dependent variable (performance of medical sales Reps) in both generic and multinational pharmaceutical companies and they includes:

Hypothesis one: There is no significant effect between all the independent variables together and the performance of medical sales Reps.

Hypothesis two: There is no significant effect between each of the independent variables apart (wages system, evaluation, training, sales target, promotional system and personality traits) and the performance of medical sales Reps, this can be defined by the following sub hypothesis:

1- There is no significant effect between wages system for medical sales Reps and their performance.

2- There is no significant effect between evaluation system performed to medical sales Reps and their performance.

3- There is no significant effect between training schedule of medical sales Reps and their performance.

4- There is no significant effect between sales targets required from medical sales Reps and their performance.

5- There is no significant effect between promotional system applied by medical sales Reps and their performance.

6- There is no significant effect between Personality traits of medical sales Reps and their performance.

1- 3- 4 Group four hypotheses:

Group four hypotheses are relevant to the effect between independent variables (wages system, evaluation, training, sales target, promotional system and personality traits) and the dependent variable (performance of medical sales Reps) in the generic pharmaceutical companies only and they includes:

Hypothesis one: There is no significant effect between all the independent variables together and the performance of medical sales Reps in generic pharmaceutical companies.

Hypothesis two: There is no significant effect between each of the independent variables apart (wages system, evaluation, training, sales target, promotional system and personality traits) and the performance of medical sales Reps in generic pharmaceutical companies, this can be defined by the following sub hypothesis:

1- There is no significant effect between wages system for medical sales Reps and their performance in generic pharmaceutical companies.

2- There is no significant effect between evaluation system performed to medical sales Reps and their performance in generic pharmaceutical companies.

3- There is no significant effect between training schedule of medical sales Reps and their performance in generic pharmaceutical companies.

4- There is no significant effect between sales targets required from medical sales Reps and their performance in generic pharmaceutical companies.

5- There is no significant effect between promotional system applied by medical sales Reps and their performance in generic pharmaceutical companies.

6- There is no significant effect between Personality traits of medical sales Reps and their performance in generic pharmaceutical companies.

1- 3- 5 Group five hypotheses:

Group five hypotheses are relevant to the effect between independent variables (wages system, evaluation, training, sales target, promotional system and personality traits) and the dependent variable (performance of medical sales Reps) in the multinational pharmaceutical companies only and they includes:

Hypothesis one: There is no significant effect between all the independent variables together and the performance of medical sales Reps in multinational pharmaceutical companies.

Hypothesis two: There is no significant effect between each of the independent variables apart (wages system, evaluation, training, sales target, promotional system and personality traits) and the performance of medical sales Reps in multinational pharmaceutical, this can be defined by the following sub hypothesis:

1- There is no significant effect between wages system for medical sales Reps and their performance in multinational pharmaceutical companies.

2- There is no significant effect between evaluation system performed to medical sales Reps and their performance in multinational pharmaceutical companies.

3- There is no significant effect between training schedule of medical sales Reps and their performance in multinational pharmaceutical companies.

4- There is no significant effect between sales targets required from medical sales Reps and their performance in multinational pharmaceutical companies.

5- There is no significant effect between promotional system applied by medical sales Reps and their performance in multinational pharmaceutical companies.

6- There is no significant effect between Personality traits of medical sales Reps and their performance in multinational pharmaceutical companies.

Chapter Two

Pharmaceutical Industrial Companies

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Pharmaceutical Industrial Companies

2- 1 Pharmaceutical sector in Jordan:

For over the past 40 years the industry has grown to 17 companies, becoming an export driven industry providing quality, safe and effective pharmaceuticals at affordable prices for millions of citizens in Jordan and the Middle East and North Africa region (MENA) (Jordanian Association of Pharmaceutical Manufactures (JAPM), 2004).

(JAPM, 2004) Pharmaceuticals industry has come to play an important role in Jordan economy and labour market that some refer to as “a sunrise industry” in Jordan. The total value of domestic production rose to almost US\$ 300 million in 2004, up from US\$ 77 million and US\$ 185 million in 1990 and 1995, respectively. In terms of exports, pharmaceuticals are second only to the garments industry, positioning it as the first value added industry in Jordan. With 70% of its sales accruing from exports, the pharmaceutical sector meets around 50% of the demands of the domestic market by units.

Pharmaceuticals also contribute significantly to domestic employment. The sector directly employed more than 4000 people in 2004, up from only 1700 employees in 1991, where the Jordanian pharmaceutical sector is the highest paid sector in terms of average monthly wages and salaries. The drug industry also provides another 3000 jobs indirectly in supply and related industries. In other words, the seventeen pharmaceutical companies that currently operate in Jordan provide jobs to approximately 3.5% of the total work force employed in the country’s industrial sector, including minerals and crude materials.

This sector specializes and excels in producing branded generics ranging from many dosage forms such as solids, semi-solids, liquids, aerosols and injectables as well as producing various licensed products from multinational companies. In addition, a number of Jordanian companies have secured approvals on some of their products from health authorities in United States (US), United Kingdom (UK), Germany and Sweden, while the rest are currently in the process of pursuing these unconventional markets.

Jordan market includes the following fifteen pharmaceutical industrial companies (after two companies have been merged):

1. Amman Pharmaceutical Industries Co. (API).
2. Arab Center for Pharmaceuticals and Chemicals (ACPC)
3. The Arab Pharmaceutical Manufacturing Co. Ltd. (APM).
4. Dar Al Dawa Development & Investment Co. (DAD).
5. Hayat Pharmaceutical Industries Co. Ltd.
6. Hikma Pharmaceuticals.
7. The Jordanian Pharmaceutical Manufacturing Medical Equipment Co. Ltd. (JPM).
8. Jordan River Pharmaceutical Industries L.L.C. (Joriver)
9. Jordan Sweden Medical and Sterilization Co (Joswe)
10. Al- Kindi Pharmaceutical Industries.
11. Middle East Pharmaceutical and Chemical Industries and Medical Appliances Co. (MID Pharma)
12. Pharma International Co. (PIC)
13. Philadelphia Pharmaceuticals
14. Ram Pharmaceutical Industries Co. Ltd (RAM).
15. United Pharmaceuticals Co. Ltd. (UP).

2- 1- 1 Demand conditions: trade and investment trends

Afram et al. (2004) clarifies that pharmaceuticals production is one of Jordan's largest and most significant industries, generating almost 20 percent of the country's gross domestic product (GDP) from manufacturing, or around JD190 million in 2002.

Its importance also stems from the fact that it is Jordan's only significant "next-generation" industry, as well as the fact that it is driven by exports. It is also "home-grown," with no substantial foreign investment to date (unlike garments, the country's top export), and is not based on natural resources, like potash, phosphates, and vegetables (the country's third, fourth, and fifth largest exports).

Jordan currently exports approximately 70 to 80 percent of its total pharmaceuticals production. As can be seen in Table (4), pharmaceutical exports were the country's second largest in 2002, accounting for around 10 percent of total exports and outstripping traditional resource-based commodities, such as potash and phosphate.

Table 4. Jordan's top five exports (2002)

Commodity	Value (JD million)	Total Exports (%)
Textiles and clothes	374.6	24.2
Pharmaceuticals	142.7	9.2
Potash	136.7	8.8
Phosphate	96.5	6.2
Vegetables	95.2	6.1

Source: Afram, G., Lloyd, J., & Sayegh L. (2004, September). *Investment Promotion Sectoral Strategy 2005-2007: Pharmaceuticals {On-line}*, http://www.amir_jordan.org.

Furthermore, Jordan's pharmaceutical exports have been growing over time. These exports have more than tripled over the past 10 years. In particular, they have grown at an average rate of approximately 12.4 percent per year over the period 2000-2002, as can be seen in the following table.

Table 5. Growth of Jordan's pharmaceuticals exports (1999-2002)

	1999	2000	2001	2002
Total Exports (JD million)	101	111	130	143
Growth rate (%)	-	10	17	10

Source: Afram, G., Lloyd, J., & Sayegh L. (2004, September). *Investment Promotion Sectoral Strategy 2005-2007: Pharmaceuticals* {On- line}, http://www.amir_Jordan.org.

Arab countries are the main export destination for Jordanian pharmaceuticals, with 98 percent of total exports going to these markets. Of these, Algeria, Iraq, and Saudi Arabia account for the bulk of exports, nearly two thirds in 2002.

Some manufacturers are already exporting to the European market: UP, for instance, exported \$50 million worth of generic drugs to the German market in 2002.

Most pharmaceutical imports, on the other hand, come from European countries. In 2002, pharmaceutical imports reached JD125 million, of which around two thirds came from European countries such as Germany, UK, Switzerland, and France. Pharmaceutical imports are of therapeutic classes that are not produced locally, such as cancer-treatment drugs.

The size of the local market, or total local demand, was around JD175 million in 2002, with imports satisfying some 70 percent of local demand and local production satisfying the balance.

As for the types of medication produced, 95 percent of locally manufactured drugs are generic. The remaining five percent are produced under license for sale in the Middle East.

2- 1- 2 Market structure and competition

Afram et al. (2004) indicates that the Jordanian pharmaceuticals industry has a fair level of competition, with 15 manufacturers, six of which are listed on the Amman

Stock Exchange (ASE). All are eager to gain entry to new export markets and are striving to capture a greater share of the small domestic market.

Prior to 1990, there were only six pharmaceutical manufacturers in Jordan. The increase in the number of manufacturers between 1991 and 1999 was primarily driven by the hope of new entrants to tap into the seemingly lucrative export markets for generic drugs that their predecessors had penetrated. These opportunists did not anticipate Jordan's accession to the World Trade Organization (WTO), which took place in April 2000, and the consequent requirements of adhering to stringent Intellectual Property Rights (IPR) and patent laws.

2- 1- 3 Firm structure and rivalry

The Achievement of Market-Friendly Initiatives and Results (AMIR) Program's recent study of the local pharmaceutical cluster suggests that firm structure in Jordan is weak by international standards, and while pharmaceutical factory size varies, it is often considered to be below the scale needed for minimum efficiency.

Average investment in a plant producing generic drugs in Jordan varies from \$4 to \$40 million, which is well below averages in the U.S. and Europe, and represents a low barrier to entry which partially explains the large number of firms.

Strong firm rivalry, however, has proved to be good for innovation. Furthermore, when coupled with Jordan's WTO accession and the consequent opening of markets, it is driving firms to shape up or face demise.

The total sales for all Jordanian pharmaceutical firms, both at home and abroad, amounted in to JD195 million in 2002, of which 74 percent was exported. Three companies, each with average annual sales of at least JD25 million, dominate local production: Hikma Pharmaceuticals, APM, and DAD. JPM and UP, each with total

sales of JD 9 million in 2002, are arguably the sector's only two medium-sized companies. Taken together, these five companies represent around 85 percent of total industry sales and are responsible for around three quarters of the total sales of domestically produced pharmaceuticals. The other 12 companies are small, each with an average of total annual sales of less than JD4 million over the past three years.

Intense domestic competition and excess capacity, coupled with the stringent regulatory regime required for protection of IPR by the WTO, Trade-Related Aspects of Intellectual Property Rights (TRIPS) and the Jordan-U.S. Free Trade Agreement (JUSFTA), is pushing the industry toward consolidation and beginning to squeeze smaller producers out of the market.

The first merger of two privately owned Jordanian companies – Rawhi Pharmaceutical Industries and Al Kindi Pharmaceutical Industries – took place in 2000. The resulting company is currently operating under the name of Al Kindi Pharmaceutical Industries. The second merger between the publicly listed Al Razi Pharmaceutical Industries and the privately-owned JPM was approved in late 2003.

According to JPM, the new company will be listed on ASE and will operate under JPM's name with a total paid up capital of JD16 million. In April 2003, DAD signed a memorandum of understanding with APM to develop joint factories in Egypt and Algeria. Finally, in November 2003, the shares of both APM and Advanced Pharmaceutical Industries were suspended from trading at ASE after they announced their plans to merge.

2- 1- 4 Regulatory environment

Afram et al. (2004) demonstrates that while Jordan's Ministry of Health (MOH) has established a drug vigilance center or Drug Directorate, the agency still lacks the

auditing and inspection standards of its peers in Europe or the U.S. Therefore, many Jordanian companies seek certifications from drug administration agencies abroad to demonstrate their compliance with international standards.

Jordan's accession to the WTO and the signing of JUSFTA have resulted in implementing IPR protection that is considered the best in the MENA region and among the most advanced in the developing world. While the WTO and JUSFTA have opened the doors for Jordanian pharmaceutical companies to enter non- traditional markets such as Europe and the U.S., they still need to be approved by any European Health Authority in the E.U. and by the FDA in the U.S., which provides an incentive to maintain the highest international standards in order to get access to these export markets.

2- 1- 5 Research and development capabilities

Afram et al. (2004) defines that most leading multinational pharmaceutical firms conduct research primarily in the following five areas: Clinical, synthesis compound, bioequivalence, toxicological, and formulation and stability

Research and development (R&D) to produce a new molecule and develop it into a commercial product is an expensive and lengthy process. The full cost of discovery through launch of a new drug can be up to \$500 million. According to a study conducted by the Jordan's Ministry of Planning Competitiveness Unit, the country's pharmaceutical firms currently only conduct research in only two of these areas: bioequivalence and stability studies.

This work could be more accurately described as "development," since the technical capabilities, equipment, and resources are not currently available in Jordan to perform true research work.

In fact, almost all R&D done by Jordanian pharmaceutical firms is development work to ensure their generic products meets all necessary standards. This requires a high level of skill and expertise, but is not as costly as the R&D required for an original drug.

Jordan has four clinical research organizations (CRO), such as the International Pharmaceutical Research Center (IPRC). These organizations perform drug trials using their medical, clinical, and bio-analytical expertise before submitting their study to complete the registration process of the drugs.

According to IPRC, bioequivalence study costs between JD30,000 and JD50,000 in Jordan and between JD70,000 and JD100,000 worldwide, thereby offering the potential to attract generic investors wishing to have high-quality, low-cost bioequivalency research.

2- 1- 6 Taxation

Afram et al. (2004) clarifies that Jordanian tax laws and regulations are generally favourable to Foreign Direct Investment (FDI). With regards to attracting FDI to the pharmaceuticals sector in particular, however, certain areas need to be amended or clarified.

There are no current government incentives for R&D, which is deemed a “non-productive” area in the short to medium term. Furthermore, it is not clear in terms of local accounting practices whether R&D in Jordan is considered an expense or an investment. While the law calls for such activities to be tax-deductible, in practice, according to local firms, this is not the case.

2- 1- 7 Market access agreements

Afram et al. (2004) explains that since Jordan's domestic market is small, the country has attempted in recent years to enhance its ability to access other markets by acceding to the WTO and entering into several multilateral and bilateral free trade agreements, such as JUSFTA, the Jordan-E.U.

Association Agreement, the Greater Arab Free Trade Agreement (GAFTA), and free trade agreements with Arab countries such as Egypt, Saudi Arabia, United Arab Emirates, Syria, and Tunisia.

However, medicines and pharmaceutical products already enter most countries, including the U.S., E.U. member states, and Saudi Arabia, free of duties or subject to reduced tariffs. For this reason, duty-free access to such markets does not have as much bearing on Jordan's ability to attract FDI to pharmaceuticals as its compliance with high industry standards and international certifications.

Moreover, even with market access agreements in place, Jordanian companies report technical barriers to trade (TBTs) in most Arab markets: Egypt and Syria are practically closed to Jordanian exporters, while Saudi Arabia and Lebanon, although financially lucrative, are difficult and costly to enter. Other markets, such as Libya, Algeria, Sudan, Tunisia, Morocco, and Yemen, are volatile, not highly profitable, and fraught with TBTs. Egypt, for instance, does not allow the registration of a drug if five equivalent formulae are available in the market, while Algeria requires that companies set up factories in the domestic market after a few years of exporting to the country.

2- 1- 8 Costs and operational efficiency

Afram et al. (2004) clarifies that in general, there are two types of pharmaceutical production facilities: bulk plants, also known as fine chemical plants, and finishing plants.

Bulk plants can base their production either in chemistry or fermentation, a form of biotechnology. They require high investment and expertise, but enjoy a handsome return on capital. Bulk plants commonly require an investment of over \$100 million.

Finishing plants, on the other hand, buy active and inactive ingredients from bulk plants and convert them into tablets, capsules, and so on. They do not require major investments, but are also not as profitable as bulk plants.

All plants in Jordan are finishing plants.

2- 2 Global pharmaceutical industry

2- 2- 1 Global investment trends

Afram et al. (2004) defines that the past 20 years have been a time of relentless consolidation for the global pharmaceuticals industry. Mergers and acquisitions have cut the number of pharmaceutical firms operating around the world in half, with the exception of small start ups, primarily in biotechnology. At the same time, the number of pharmaceutical firms in Arab countries has increased by 500 percent. This counterintuitive trend suggests that consolidation is also ultimately inevitable in the region as well.

After a year of slow growth, global pharmaceutical companies are divesting, cutting jobs, merging with former rivals, and investing in new drugs in the development pipeline. Many of the world's major pharmaceutical concerns have struggled to generate sales growth, which were in mid-single digits in 2003.

Analysts have estimated that earnings across the sector have grown by an average of 0.9 percent in 2003, down from 1.8 percent in 2002. Earnings growth, however is expected to accelerate to 8.4 percent in 2004, as new products reach the market and the threat of generic competition wanes.

Beyond 2004, annual global market sales growth of 8.5 percent is expected. A number of forces challenge the industry's ability to get within striking distance of these expectations, such as decreasing R&D productivity levels, increasing R&D costs, rising marketing and selling expenses, and low average peak brand sales.

Large pharmaceutical companies that lacked enough new and near-market products to generate sufficient revenue have executed mergers or ramped up in-house R&D. In other instances, non-core businesses have been divested or spun off as companies streamline to improve efficiency. Changing regulations are forcing pharmaceutical companies to revise marketing practices and maximize returns to generate at least single-digit increases.

Through 2010, growth in the pharmaceutical industry will become more challenging as competition from new and generic drugs continues to increase. Although a few top pharmaceutical companies may be able to maintain momentum for some time, the majority will need to change their strategies to successfully meet these new market realities.

2- 2- 2 Global market characteristics and players

Afram et al. (2004) expresses that in 1992, the world market for pharmaceuticals totalled \$137 billion. By 2002, it had grown by 160 percent to approximately \$356 billion. In 1992, the top 10 companies in the world accounted for 28 percent of total

industry sales. By 2002, they accounted for 46 percent of total sales. Table (6) lists the top 10 companies in 2002, ranked by their total global sales.

Table 6. Top 10 Global pharmaceutical firms (2002)

Rank	Company	Country of Origin	Total Sales (\$ million)
1	Merck & Co.	United States (U.S.)	51,790
2	Johnson & Johnson	U.S.	36,298
3	Pfizer	U.S.	32,373
4	GlaxoSmithKline	United Kingdom (U.K.)	31,830
5	Bayer	Germany	27,299
6	AstraZeneca	Sweden	22,230
7	Novartis	Switzerland	20,828
8	Aventis	France	19,441
9	Roche	Switzerland	19,101
10	Bristol-Myers Squibb	U.S.	18,119

Source: Afram, G., Lloyd, J., & Sayegh L. (2004, September). *Investment Promotion Sectoral Strategy 2005-2007: Pharmaceuticals {On- line}*, http://www.amir_Jordan.org.

As Table (7) demonstrates, the U.S. accounted for almost 45 percent of the global market in 2002, followed by Europe with about 24.5 percent and Japan with 13 percent. In terms of exports, the U.S., Germany, the U.K., and France are the four biggest global exporters, respectively.

Table 7. Global pharmaceuticals markets by region (2002)

Country/ Region	Sales (\$ billion)	Market share (%)
United States	158	45.0
Europe	88	24.5
Japan	47	13.0
Asia Pacific	24	6.5
Latin America	22	6.0
Middle East & Africa	10	3.0
Canada	7	2.0
Total	356	100

Source: Afram, G., Lloyd, J., & Sayegh L. (2004, September). *Investment Promotion Sectoral Strategy 2005-2007: Pharmaceuticals {On- line}*, http://www.amir_Jordan.org.

Sales to date in the top five European markets have shown a 75 \$ billion with a market share of 21.3 percent , while U.S. sales are 158 \$ billion representing the higher market share of 45.0 present as shown in table (8).

Table 8. Top global pharmaceuticals markets by country (2002)

Rank	Country	Sales (\$ billion)	Market Share (%)
1	United States	158	45.0
2	Japan	47	13.0
3	Germany	20	5.7
4	France	19	5.4
5	UK	14	4.0
6	Italy	13	3.7
7	Spain	9	2.5
8	Canada	7.5	2
9	Mexico	7	2
10	China	6	1.7
	Rest of World	55.5	15
	Total	356	100

Source: Afram, G., Lloyd, J., & Sayegh L. (2004, September). *Investment Promotion Sectoral Strategy 2005-2007: Pharmaceuticals {On- line}*, http://www.amir_Jordan.org.

Chapter Three

Personal Selling and Factors Affecting Sales Representatives' Performance

3- 1 Personal selling

3- 1- 1 Personality traits

3- 2 Factors affecting sales representatives' performance

3- 2- 1 Training sales representatives

3- 2- 2 Sales representatives' compensation

3- 2- 3 Supervising sales representatives

3- 2- 4 Sales representatives' size

3- 2- 5 Motivating sales representatives

3- 3 Evaluating sales representatives' performance

Personal Selling and Factors Affecting Sales Reps Performance

3- 1 Personal selling:

Personal selling is the original form of all promotion and may be defined as "a business activity involving a person- to- person communication process during which a salesperson uncovers and satisfies the needs of a buyer to the mutual, long- term benefit of both parties" (Obeidat& Al- Dmour 2005).

While Corn& DeCarlo, (2006) express that personal selling is critical to the sale of many goods and services, especially major commercial and industrial products and consumer durables, and defines it as "direct communication between paid representatives and prospects that lead to transactions, customer satisfaction, account development, and profitable relationships".

Pride& Ferrell (2003) clarify that personal selling as "a paid personal communication that seeks to inform customers and persuade them to purchase products in an exchange situation".

The objective of personal selling is to build a relationship that provides long-term benefits to both the seller and the customer. Thus, selling involves helping customers identify problems, offering information about potential solutions and providing after- sale services to ensure long- term satisfaction. Influences and persuasions are only part of selling.

To develop a sales force, a marketing manager must decide what kind of salespersons will sell the firm's products most effectively. According to Obeidat& Al- Dmour, (2005) salespeople can be classified into three groups:

1- Order getting: employees who increase their firm's sales by selling to new customers and by increasing sales to present customers.

2- Order takers: employees who ensure that repeat customers have sufficient quantities of the desired product where and when they are needed in order to perpetuate long lasting relationships.

3- Support personnel: employees who facilitate the selling process but are not usually involved in selling.

3- 1- 1 Personality traits:

Much discussion and research has taken place over the years attempting to classify personality traits and their functionality in an organizational setting.

Personality distinguishes each individual from all others and colors his or her behavior in a pervasive and recognizable fashion. It is a persistent phenomenon that changes little and slowly, if at all, over time. Personality makes people fascinating to one another.

Najjar (2005) explains that the importance of studying the personality traits arise from the fact that it contributes to many industries especially pharmaceutical companies to have more useful information to apply the best marketing and promotional strategies that handle these personalities.

According to DuBrin (2004) personality refers to those persistent and enduring behaviour patterns that tend to be expressed in a wide variety of situations.

The sales Reps should be aware of many personality traits and skills in order to succeed. These personality traits are needed to increase the performance of sales Reps;

self- confidence, patients, persistent, sociability, intelligence, enthusiastic, loyalty, optimistic and presentable (Mua'lla, 1994).

While Futrell (1990) clarifies that there are eight basic traits that should be available in the successful sales Reps, which are: love for the work, ability to work seriously, ability to be successful, perfect sight, knowledge about the product, time management, good listener and provide good customer service.

3- 2 Factors affecting sales Reps' performance:

In this section factors affecting sales Reps' performance will be discussed and these factors are: training sales Reps, sales Reps compensation, supervising sales Reps, sales Reps size, and motivating sales Reps.

3- 2- 1 Training sales representatives:

Pettijohn et al. (2007) argued that for training salespeople include not only the enhanced development of skills and improved levels of performance but also tangential factors such as reduced turnover, increased organizational commitment, job satisfaction, and customer orientation.

Kotler (2003) explains that many companies send their new Reps into the field almost immediately, supplied with samples, order books, and a description of the territory. Much of their selling is ineffective. Today's customers expect salespeople to have deep product knowledge, to add ideas, to improve the customer's operations, and to be efficient and reliable. These demands have required companies to make a much higher investment in sales training.

Today, new Reps may spend a few weeks to several months in training. The median training period is 28 weeks in industrial products companies, 12 in service companies, and 4 in consumer products companies. Training time varies with the complexity of the selling task and type of person recruited into the sales organization. Sales training programs have several goals:

- Sales Reps need to know and identify with the company.
- Sales Reps need to know the company's products.
- Sales Reps need to know customers' and competitors' characteristics.
- Sales Reps need to know how to make effective sales presentations.
- Sales Reps need to understand field procedures and responsibilities.

New methods of training are continually emerging, such as role playing and sensitivity training; the use of cassette tapes, videotapes, and CD- ROMs; the programmed training, distance learning, and films on selling.

According to Cron& Decarlo (2006) the main objectives of training are:

- Increase productivity: the ultimate objective of any training program is to produce profitable results. A pharmaceutical company found that just by bringing the bottom half of the sales force up to average through proper training would result in a 9 percent increase in sales.

- Reduced turnover: turnover is the ratio of the number of people who leave to the average size of the sales team. Salespeople who go into the field without adequate training find it difficult to see buyers, answer questions, or aloes orders. A study of the insurance industry found that the likelihood of turnover peaks at 15 months of employment and is highest among low productivity agents. Also the result of a multiple

industry study revealed that sales managers may be to reduce job stress and increase job satisfaction by providing new agents with a quality sales training program.

- Improved customer relations: industrial buyers, in particular, complain that too much of their time is wasted in dealing with untrained salespeople. Buyers do not like to spend their time counseling salespeople on market conditions and product needs. They prefer to work with trained salespeople with a thorough knowledge of the industry, their firm's business, and their own product lines.

- Better morale: the majority of sales training is designed to increase product knowledge and improve selling skills; one by-product of acquiring these skills is increased self- confidence and enthusiasm among sales force. Trained salespeople start producing orders faster, and the increased earnings help boost morale.

3- 2- 2 Sales representatives' compensation:

To attract top- quality sales Reps, the company has to develop an attractive compensation package. Sales Reps would like income regularity, extra reward for above- average performance, and fair payment for experience and longevity. Management would like to achieve control, economy, and simplicity. Some management objectives will conflict with sales Rep objectives. No wonder compensation plans exhibit a tremendous variety from industry to industry and even within the same industry.

The level and component of an effective compensation plan must bear some relation to the "going market price" for the type of sales job and required abilities. However, published data on industry sales –force compensation levels are infrequent and generally lack sufficient detail.

The company must next determine the four components of sales forces compensation: a fixed amount, a variable amount, expense allowances, and benefits. The fixed amount, a salary is intended to satisfy the Reps' need for income stability. The variable amount, which might be commissions, bonus, or profit sharing, is intended to stimulate and reward greater effort. Expense allowances enable sales Reps to meet the expenses involved in travel, dining, and entertaining. Benefits, such as paid vacations, sickness or accident benefits, pensions, and life insurance, are intended to provide security and job satisfaction.

A popular rule favors making about 70 percent of the sales person's total income fixed and allocating the remaining 30 percent among the other elements. Some companies are basing the Rep's reward partly on a sales team's performance or even company wide performance. This should get Reps to work more closely together for the common good. Yet some talented Reps may resent carrying weaker team members (Kotler, 2003).

3- 2- 3 Supervising sales representatives:

Sales managers should supervise the sales Reps, and this is considered one of the most factors affecting sales Reps spirit, performance and productivity (Mua'lla, 1994).

Kotler (2003) explains that companies vary in how closely they supervise sales Reps. Reps paid mostly on commissions generally receive less supervision. Those who are salaried and must cover definite accounts are likely to receive substantial supervision. Sales Reps spend time in the following ways:

- Preparation: getting information and planning call strategy.

- Travel: in some jobs, travel time amounts to over 50 percent of total time. Travel time can be cut down by using faster means of transportation.

- Food and breaks: some portion of the workday is spent in eating and taking breaks.

- Waiting: time spent with the buyer in person or on the phone.

- Administration: time spent in report writing and building, attending sales meetings, and talking to others in the company about production, delivery, billing, sales performance, and other matters.

With so many duties, it is no wonder that actual face to face selling time amounts as little as 29 percent of total working time. Companies are constantly seeking ways to improve sales- force productivity, one way is through effective supervising.

Mua'lla (1994) demonstrates that the main objectives of effective supervision are:

- Increase sales Reps commitment to the job.
- Holding responsibilities toward the job through effective participation in planning and decision making.
- Understand and improve any situation that might face the sales Reps, which might be obstacles and affect their work.
- Build a communication network between all sales employees, in order to coordinate and communicate within the team.
- Encourage the development of good habits in the sales Reps.

3- 2- 4 Sales representatives' size:

The roles that the sales force and selling partners play; the size of the sales force, this variable is critical because they determine how quickly sales forces respond to market opportunities; they influence sales forces' performance; and they affect companies' revenues, costs, and profitability. So a company should determine the most

appropriate size for its sales force by evaluating the probable size of the opportunity and assessing the potential risks of pursuing an aggressive or conservative approach (Zoltners et al., 2006).

Sales Reps are one of the company's most productive and expensive assets. Increasing their number will increase both sales and costs.

Once the company establishes the number of customers it wants to reach, it can use many approaches to establish sales force size. The internet has enabled companies to reduce their sales forces without sacrificing relationships with customers (Kotler, 2003).

3- 2- 5 Motivating sales representatives:

According to Cron& DeCarlo (2006), motivation is defined as "an individual's willingness to exert effort to achieve the organization's goals while satisfying individual needs".

Libin (2006) indicates that improving sales performance is all about positive attitude that emanates from and is nurtured at the top by strong, fair and inclusive motivation. To truly motivate and create a positive attitude, sales contests must be based on the current performance level of every team member and then reward them for improving performance. Motivation is powerful when used effectively. But they can be just as powerful in re-enforcing negative attitudes if improperly applied.

Kotler (2003) clarifies that some sales Reps will put forth their best effort without any special coaching from management. To them, selling is the most fascinating job in the world; they are ambitious and self- starters. However, the majority require encouragement and special incentives. This is especially true of field selling:

Reps usually work alone, their hours are irregular, and they are often away from home. They confront aggressive, competing sales Reps; they have an inferior status relative to the buyer; they often do not have the authority to do what is necessary to win an account; and they sometimes lose large orders they have worked hard to obtain.

The researchers went on to measure the importance of different rewards. The reward with the highest value was pay, followed by promotion, personal growth, and sense of accomplishment. The least- valued rewards were liking and respect, security, and recognition. In other words, salespeople are highly motivated by pay and the chance to get ahead and satisfy their intrinsic needs, and less motivated by compliments and security.

Sales quotas are set annually by many companies. Quotas can be set on dollar sales, unit volume, margin, selling effort or activity, and product type. Compensation is often tied to degree of quotas fulfillment.

Companies use additional or supplementary motivators to stimulate sales force effort. Periodic sales meetings provide a social occasion, a break from routine, a chance to meet and talk with each other, and a chance to air feelings and to identify with a leader group. Sales meetings are important tool for education, communication, and motivation. Companies also sponsor sales contest to spur the sales force to a special selling effort above what is normally expected.

3- 3 Evaluating sales representatives' performance:

It was mentioned earlier about the aspects of supervising; how management communicates what the sales Reps should be doing and motivates them to do it; but

what's important too is good feed- forward requires feedback, which means getting regular information from Reps to evaluate performance.

The most important source of information about Reps is sales reports. Additional information comes through personal observation, customer letter complaints, customer survey, and conversations with other sales Reps. Many companies require Reps to develop an annual territory marketing plan in which they outline their program for developing new accounts and increasing business from existing accounts.

These reports provide raw data from which sales managers can extract key indicators of sales performance: average number of sales calls per salesperson per day, average sales call time per contact, average revenue per sales call, average cost per sales calls, entertainment cost per sales call, percentage of orders per hundred sales calls, number of new customers per period, number of lost customers per period, and sales force cost per a percentage of total sales (Kotler, 2003).

Cron& DeCarlo (2006) indicates that at first glance, evaluating salesperson's performance seems simple: merely measure sales volume. The thinking behind this theory is that higher volume means increased performance. But the focus on sales volume can be misleading.

Evaluation is defined as a comparison of sales force goals and objectives with actual achievements in the field. A general model of evaluation process is that management must first decide what it wants the sales force to accomplish. The most common objectives are the attainment of specific sales revenue, contribution profits, market shares, and expense levels. Then, a sales plan must be prepared to show how the goals are to be achieved. The next step is to set performance standards for individual

products for different levels in the organization. This typically requires setting goals for total sales, as well as sales by region, by product, by salesperson, and for each separate account. At the conclusion of an evaluation period, differences between the performance standards and the results attained are determined. Reasons for above and below standards performance are analyzed, and modifications are made in the plans for the future.

Performance reviews are usually conducted on an annual basis, although many firms conduct evaluations semi-annually or quarterly. While these reviews are difficult to administer, they do provide valuable information for staffing decisions and serve as a basis to improve salesperson performance. The results of performance reviews can be used to answer a number of important questions such as:

- Who should receive raises, bonuses, and prizes? Who should be promoted? What criteria should be used in hiring? Who needs retraining? What subjects should be emphasized in training classes? Have the company's strategic selling objectives been met? How should sales territories be adjusted? and who should be terminated?.

Chapter Four

Research Methodology

4- 1 Population and sampling

4- 2 Data collection methods

4- 3 Reliability of data collection method (questionnaire)

4- 4 Methods of statistical analysis

4- 5 Analysis of demographic variables

Research Methodology

4- 1 Population and sampling:

Population of the Jordanian pharmaceutical manufacturing companies includes almost 17 generic (generic) companies, and more than 35 research (originator, multinational) companies; each manufacturing research company is present in its native country and dealing with an agent to distribute its products, and has a marketing department in Jordan; which is specialized in promoting the company's products.

Medical sales representatives are the major field team responsible for promoting to doctors and pharmacies in the Jordanian market. Therefore, the main target (unit of analysis) is the medical sales representatives in the pharmaceutical companies (generic and research) in Jordan.

Two of the Jordanian generic companies have merged together so only 15 are left which are:

API, ACPC, APM, DAD, Hayat, Hikma, JPM, Joriver, Joswe, Al-Kindi, MID Pharma, PIC, Philadelphia, RAM and UP.

Almost each company (either generic or multinational) has a minimum number of four medical sales representatives in its field force team, but many of them have more than 30 medical sales Reps.

Therefore, the sample will include a maximum number of eight medical sales Reps from each company, as follows:

- Almost 15 generic companies are available: all were included in the study.

- Almost more than 35 multinational companies were available, but only 15 (which their sales in the Jordanian market in 2005 exceeded one million JD) were included in the study, which are:

Pfizer, Sanofi Aventis, GlaxoSmithKline, Novartis, Wyeth, AstraZeneca, Abbott, Merck, Biochemie, Boehringer, Schering AG, Bristol, Merck AG, Roche and Solvay.

Total of distributed questionnaires (sample size) are shown in table (9):

Table 9. Suggested distribution of the sample

Generic company	15 X 8	=	120
Multinational company	15 X 8	=	120
Total Medical sales Reps		=	240

Prepared by the researcher.

According to IMS (2005) the following table shows the sales (quarter two-2005) by value of the top fifteen multinational companies and all Jordanian generic companies, and by which the sample was chosen:

Table 10. Cumulative sales by value of pharmaceutical companies in Jordan (quarter- 2/ 2005)

Rank	Pharmaceutical company	Sales +00 (JD)
1	DAD	5,848.7
2	Hikma	5,716.6
3	APM	5,578.7
4	Pfizer	4,702.7
5	Sanofi Aventis	4,098.2
6	GlaxoSmithkline	3,782.4
7	Novartis	2,871.5
8	RAM	2,719.6
9	Wyeth	2,301.8
10	AstraZeneca	2,279.6
11	Abbott	2,126.1
12	Merck	2,122.4
13	JPM	2,018.7
14	PIC	1,982.1
15	Biochemie	1,907.9

16	Boehringer	1,506.1
17	Joswe	1,436.8
18	Schering AG	1,395.4
19	UP	1,347.6
20	Hayat	1,320.5
21	Bristol	1,198.4
22	MID Pharma	1,162.8
23	Merck AG	1,133.9
24	Roche	1,107.2
25	Solvay	1,094.3
32	ACPC	776.3
38	API	556.5
41	Joriver	449.0
48	Philadelphia	369.4
	Al- Kindi	Not available

Source: IMS Health, 2005

Table (10) shows that the sales of the top twenty-five pharmaceutical companies in Jordan is over one million JD, but also ACPC, API, Joriver, Philadelphia and Al-Kindi occupy ranking above than thirty with annual sales below one million JD.

As mentioned above it was required from each company to fill eight questionnaires in order to overcome the effects of the following obstacles:

1. The medical sales Reps should have a minimum one year experience in the related company.
2. Some companies appear to have less than eight medical sales Reps in its team (in this case all available medical sales Reps were included despite the final number of them was below eight).

So the total number of the sample is (124) medical sales Reps; (57) from generic companies and (67) from multinational companies, as Table (11) below shows:

- The total sample size was 240 medical sales Reps from thirty companies; 15 of each generic and multinational companies.
- Five Generic companies were excluded. The reason was that three of them depend on an agent to market and distribute their products (Hayat

Pharmaceutical Industries, ACPC and Al- Kindi Pharmaceutical Industries); the other two companies could not be visited because the researcher could not reach the country manager of these companies (PIC and Joriver).

- Seven companies refused to fulfil the questionnaire mainly because it was against their policies, two were generics (DAD and MID Pharma) and five were multinationals (Boehringer, Bristol, Merck AG, Roche and Solvay).
- The final sample included 124 medical sales Reps in 18 different companies, 57 medical sales Reps from eight generics (API, APM, Hikma Pharmaceuticals, JPM, Joswe, Philadelphia Pharmaceuticals, RAM and UPM), and 67 medical sales Reps from ten multinational companies (Pfizer, Sanofi Aventis, GlaxoSmithKline, Novartis, Wyeth, AstraZeneca, Abbott, Merck, Biochemie and Schering AG).
- About (144) questionnaires were expected; but only 124 were actually received which make about (86%) of the expected sample.

Table 11. Final sample distribution

	Companies contacted	Companies excluded	Companies refused to fill the questionnaire	Final Sample	Expected number to be received	Actual number received	Sample received (%)
Generic Companies	15	5	2	8	64	57	89%
Multinational Companies	15	0	5	10	80	67	84%
Total	30	5	7	18	144	124	86%

Prepared by the researcher.

4- 2 Data collection methods:

The research depended on gathering primary and secondary data. Secondary sources of data were:

- Information Medical Statistics (IMS).
- The Jordanian Association of Manufacturers of Pharmaceuticals and Medical Appliances (JAPM).
- Internet (On line data).

- Developing the data collection tool (questionnaire):

Primary sources of collected data were distributed questionnaires as mentioned before. The questionnaire consists of five parts:

The first part included seven questions; five of them describe demographic information, the sixth question asks about monthly salary, and the last asks about monthly car allowances.

The second part included twelve questions (likert scale) measuring wages, evaluation and promotional system.

The third part included thirty questions (likert scale) measuring evaluation, training, sales target and promotional systems.

The fourth part included ten questions (likert scale) measuring ten different Personality traits.

The last (fifth) part included four questions (likert scale) measuring the performance of medical sales Reps.

In order to choose the best ten Personality traits (part four in the questionnaire) which have a major role in becoming a successful medical sales Rep, the following question was asked:

"What are the most important Personality traits that are needed for a medical sales Rep to become successful in the pharmaceutical companies?"

The above question was asked and answered by 16 different related positions in different pharmaceutical companies in order to collect a group of Personality traits that

are important for the medical sales Reps. The collected samples were: three supervisors, five product managers, three business development managers, two marketing managers, a pharmacist, a country manager and a sales manager in ten different companies.

Then a total of (39) Personality traits were collected in a questionnaire (Likert scale), and distributed by both hand and e-mail to (21) samples, seventeen (81%) of them only responded. Then the top ten Personality traits (mean > 4.47) were included in the original questionnaire. Table (12) below shows the mean for the (39) Personality traits.

Table 12. Descriptive analysis of Personality traits

No.	Personality traits	Number of Sample	Mean	No.	Personality traits	Number of Sample	Mean
1	Good listening	17	4.7059	21	Adapting to environment	17	4.1765
2	Commitment to job responsibilities	17	4.7059	22	Fluent speaking	17	4.1765
3	Hard- working	17	4.6471	23	Social intelligence	17	4.1765
4	Honesty	17	4.6471	24	Presentable	17	4.1765
5	Enthusiasm	17	4.5882	25	Motivation	17	4.1176
6	Good communication	17	4.5882	26	Aggressiveness	17	4.1176
7	Persistence	17	4.5294	27	Ambition	17	4.1176
8	Self- confidence	17	4.5294	28	Problem solving	17	4.1176
9	Convincing	17	4.5294	29	Team work	17	4.1176
10	Dealing with different personalities	17	4.4706	30	Fast learning	17	4.0588
11	Commitment to appointments	17	4.4118	31	Mature thinking	17	4.0000
12	Trust- worthy	17	4.3529	32	Challenging personality	17	3.9412
13	Respecting others	17	4.3529	33	Self-development	17	3.8824
14	Good negotiation	17	4.3529	34	Interactive spirit	17	3.8235
15	Time management	17	4.3529	35	Creativity	17	3.8235
16	Strong personality	17	4.2941	36	Smartness	17	3.7647
17	Patience	17	4.2941	37	Talent	17	3.7059
18	Scientific knowledge	17	4.2941	38	Noticeability	17	3.5294
19	Initiative	17	4.2353	39	Leadership	17	3.2941
20	Positive attitudes	17	4.1765				

4- 3 Reliability of data collection method (questionnaire):

The Cronbach's alpha reliability coefficient of the six independent variables and the dependent variable were obtained. The results indicate that Cronbach's alpha of the fifty six items measuring independent variables: wages system, evaluation system, training system, sales target, promotional system, Personality traits and the dependent variable (performance) is 0.815. And as Sekaran (2003) clarifies the Cronbach's alpha should be more than 0.60. Thus, the internal consistency of the measures used in the research can be considered to be good.

4- 4 Methods of statistical analysis:

The data collected were analyzed by SPSS (Statistical analysis), such as:

- Descriptive analysis for demographic data.
- One way ANOVA analysis to test the first hypothesis.
- Independent- sample T- test to analyze the second hypothesis.
- Linear and multiple regression analysis to test the third, fourth and the fifth hypotheses.

4- 5 Analysis of demographic variables:

The demographic analysis will help in giving an overall view for the collected sample of (124) medical sales Reps of different (18) pharmaceutical companies, and at the same time provides a better more detailed study of the sample.

The demographic variables included in the questionnaire and will be discussed in this section are gender, age, educational level and marital status. Other variables concerning monthly basic salary and monthly car allowances will also be discussed.

Distribution of sample according to gender (table (13)) shows that 78.2% of the sample are males, while only 21.8% are females. Ten of the 27 females included in the sample were from generic companies while 17 were from multinational companies, so despite that females do not occupy more than one quarter of the sample, this result indicates that the percent of females who are occupying the position of a medical sales Rep in the pharmaceutical field is growing up and their participation will be equal to males by the coming years.

Table 13. Distribution of subject according to their gender

Gender	Total		Generic		Multinational	
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
Female	27	21.8	10	37.1	17	62.9
Male	97	78.2	47	48.5	50	51.5
Total	124	100	57		67	

Table (14) shows the distribution of sample according to age; where about 35.5% of the sample are between 22- 26 years old, 46% are between 27- 31 years old, and 12.9% are between 32- 36 years old, but only 5.6% of the sample age more than 36 years old. And as shown the generic and multinational companies have almost the same number of Reps. in each age group except for the first group (from 22- 26 years old) where the multinational companies exceeded by ten.

Table 14. Distribution of subject according to their age

Age (years)	Total		Generic		Multinational	
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
22- 26	44	35.5	17	38.6	27	61.4
27- 31	57	46.0	28	49.1	29	50.9
32- 36	16	12.9	8	50	8	50
More than 36	7	5.6	4	57.1	3	42.9
Total	124	100.0	57		67	

Results showed in table (15); the distribution of sample according to educational level; indicate that the highest number of Reps. have bachelor degree (94.4%) including (55) medical sales Reps from generic companies and (62) from multinational companies, while medical sales Reps who have master degree are only 4.8%, four out of six of them are from multinational companies, and only one medical sales Rep (0.8%) from the multinational companies have another degree.

Table 15. Distribution of subject according to their educational level

Educational degree	Total		Generic		Multinational	
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
Bachelor	117	94.4	55	47	62	53
Master	6	4.8	2	33.4	4	66.6
Others	1	0.8	0	0	1	100
Total	124	100.0	57		67	

Table (16) shows the distribution of sample according to marital status of medical sales Reps. It indicates that 49.2% of the sample are married and almost 50% are not. Almost (38) of single medical sales Reps are from multinational companies representing 61.3%, and this percentage can be justified by that around 61.4% of the medical sales Reps who aged between 22-26 are from multinational companies as shown in table (14) above.

Table 16. Distribution of subject according to their marital status

Marital status	Total		Generic		Multinational	
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
Married	61	49.2	33	54.1	28	45.9
Single	62	50.0	24	38.7	38	61.3
Others	1	0.8	0	0	1	100
Total	124	100.0	57		67	

When distributing the sample according to experience years, table (17) shows that 42.7% of the sample have from 1 to 3 years of experience, around (30) medical sales Reps are from multinational companies and (23) from generics, while nearly 40.3% have an experience of 4 to 6 years. Only 10.5% have around 7 to 10 years of experience and 6.5% have more than 10 years of experience.

Table 17. Distribution of subject according to their experience years

Experience (years)	Total		Generic		Multinational	
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
1- 3	53	42.7	23	43.4	30	56.6
4- 6	50	40.3	23	46.0	27	54.0
7- 10	13	10.5	7	53.8	6	46.2
Over 10	8	6.5	4	50.0	4	50.0
Total	124	100.0	57		67	

As we discussed above there is a variation in the sample collected regarding demographic variables. Concerning the basic salary and the car allowances the distribution of these two variables is viewed below.

For distributing the sample according to basic salary, table (18) shows that 4.8% of the sample receive between JD200 and JD250 monthly, and same percentage of the sample receive from JD251 to JD300 monthly, while about 17.7% receive from JD301 to JD350, and about 24.2% get between JD351 and JD450, and the largest share receive more than JD450 and they represent 48.4% of the total sample. Around (46) of medical sales Reps in multinational companies receive more than JD450, while in the generic companies other highest group including (20) medical sales Reps receive only from JD301 to JD350 and only (14) of them get more than JD450 a month.

Table 18. Distribution of subject according to their basic salary (monthly)

Basic salary (JD)	Total		Generic		Multinational	
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
200- 250	6	4.8	6	100.0	0	0.0
251- 300	6	4.8	5	83.4	1	16.6
301-350	22	17.7	20	90.9	2	9.1
351- 450	30	24.2	12	40.0	18	60.0
More than 450	60	48.4	14	23.3	46	76.7
Total	124	100.0	57		67	

When distributing the sample according to monthly car allowance, table (19) below shows that around 16.9% of the sample receive from JD150 to JD200 on monthly basis, and about 15.3% receive from JD201 to JD249 monthly, while about 29.8% receive from JD250 to JD299 composing the largest share. JD300-350 is given to around 26.6% of the sample, and finally more than JD350 is given to only 11.3% of the sample.

Also (48) of the multinational medical sales Reps receive between JD 250 and 350 and more as a monthly car allowance, while in the generic companies about (49) of their medical sales Reps receive between JD 250-350 only as monthly car allowances.

Table 19. Frequency distribution by car allowance (Monthly)

Car allowance (JD)	Total		Generic		Multinational	
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)
150- 200	21	16.9	6	28.6	15	71.4
201- 249	19	15.3	15	78.9	4	21.1
250- 299	37	29.8	19	51.4	18	48.6
300- 350	33	26.6	15	45.4	18	54.6
More than 350	14	11.3	2	14.8	12	85.7
Total	124	100.0	57		67	

Chapter Five

Testing Hypotheses

5- 1 Testing Hypotheses

5- 1- 1 The first hypothesis

5- 1- 2 The second hypothesis

5- 1- 3 The third hypothesis

5- 1- 4 The fourth hypothesis

5- 1- 5 The fifth hypothesis

5- 2 Discussion and analysis of results

5- 3 Conclusions and Recommendations

Testing Hypotheses

5- 1 Testing hypotheses:

After collecting the needed data, a statistical analysis for testing hypotheses was applied. The tests used are one way ANOVA, Independent- sample T- test, linear regression and multiple regression.

The performance of medical sales Rep was calculated by multiplying the estimated target in the year 2006 (question e-1 in the questionnaire) by the yearly achievements of the medical sales Rep (question e-2 in the questionnaire).

5- 1- 1 Group one hypotheses:

Group one hypotheses state that if there are any significant differences between generics and multinationals regarding all independent variables and for each independent variable apart. One way ANOVA was used in testing these hypotheses.

Table 20. Testing the first group of hypotheses: one way ANOVA results.

No.	Independent Variables	Mean			F- test	Sig.
		Generic companies	Multi-national companies	Total		
1	All independent variables	3.6951	3.8111	3.7578	4.943	0.028
2	Wages system	3.1645	3.4248	3.3051	8.213	0.005
3	Evaluation system	3.5088	3.6873	3.6052	2.194	0.141
4	Training schedule	3.6572	3.9571	3.8192	9.936	0.002
5	Target sales	3.7118	3.6162	3.6601	1.360	0.246
6	Promotional system	3.5303	3.4948	3.5111	0.197	0.658
7	Personality traits	4.5982	4.6862	4.6458	2.030	0.157

Table (20) above shows the results of using one way ANOVA method of testing the first group of hypotheses:

Hypothesis one: There are no significant differences between generic and multinational pharmaceutical companies regarding all independent variables together.

As the results in table (20) shows: there are significant statistical differences between generic and multinational pharmaceutical companies when comparing all independent variables together. Whereas the mean of the total independent variables for the generic pharmaceutical companies is 3.6951, it is 3.8111 for the multinational pharmaceutical companies. So the F-test was 4.943 with significance below 0.05 (Sig. = 0.028).

Hypothesis two: There are no significant differences between generic and multinational companies regarding each independent variable apart.

According to the findings of the studies testing each independent variable apart, only two independent variables (wages system and training schedule) showed significant differences between generic and multinational pharmaceutical companies, as follows:

1- There are no significant differences between generic and multinational companies regarding wages system.

As the results in table (20) show there is a significant statistical differences between generic and multinational pharmaceutical companies when comparing wages system. While the mean of the independent variable (wages system) for the generic pharmaceutical companies is 3.1645, it is 3.4248 for the multinational pharmaceutical companies, so the F- test was 8.213 with significance below 0.05 (Sig. = 0.005).

2- There are no significant differences between generic and multinational companies regarding evaluation system.

As the results in table (20) show there is no significant statistical differences between generic and multinational pharmaceutical companies when comparing evaluation system. While the mean of the independent variable (evaluation system) for the generic pharmaceutical companies is 3.5088, it is 3.6873 for the multinational pharmaceutical companies, so the F- test was 2.194 with significance above 0.05 (Sig. = 0.141).

3- There are no significant differences between generic and multinational companies regarding training schedule.

As the results in table (20) show there is a significant statistical differences between generic and multinational pharmaceutical companies when comparing training schedule. While the mean of the independent variable (training schedule) for the generic pharmaceutical companies is 3.6572, it is 3.9571 for the multinational pharmaceutical companies, so the F- test was 9.936 with significance below 0.05 (Sig. = 0.002).

4- There are no significant differences between generic and multinational companies regarding sales target.

As the results in table (20) show there is no significant statistical differences between generic and multinational pharmaceutical companies when comparing sales target. While the mean of the independent variable (sales target) for the generic pharmaceutical companies is 3.7118, it is 3.6162 for the multinational pharmaceutical companies, so the F- test was 1.360 with significance above 0.05 (Sig. = 0.246).

5- There are no significant differences between generic and multinational companies regarding promotional system.

As the results in table (20) show there is no significant statistical differences between generic and multinational pharmaceutical companies when comparing promotion system. While the mean of the independent variable (promotion system) for

the generic pharmaceutical companies is 3.5303, it is 3.4948 for the multinational pharmaceutical companies, so the F- test was 0.197 with significance above 0.05 (Sig. = 0.658).

6- There are no significant differences between generic and multinational companies regarding personality traits.

As the results in table (20) show there is no significant statistical differences between generic and multinational pharmaceutical companies when comparing personality traits. While the mean of the independent variable (personality traits) for the generic pharmaceutical companies is 4.5982, it is 4.6862 for the multinational pharmaceutical companies, so the F- test was 2.030 with significance above 0.05 (Sig. = 0.157).

As discussed above there were significant differences when comparing all the independent variables together and when comparing each independent variable apart; only two variables (wages system and training schedules) have shown significant differences between generic and multinational pharmaceutical companies, while other independent variables: evaluation system, sales target, promotional system and the personality traits have shown no significant differences.

5- 1- 2 Group two hypotheses:

Group two hypothesis states that if there are any significant differences between generics and multinationals pharmaceutical companies regarding medical sales Reps' performance. Independent- sample T- test was used in testing this hypothesis.

Table 21. Testing second group of hypothesis: Independent- sample T- test results.

No.	Independent Variables	Mean		t- test	Sig.
		Generic companies	Multi- national companies		
1	All independent variables	1.5789	2.5373	-9.006	0.000

As the results in table (21) shows: there are significant statistical differences between generic and multinational pharmaceutical companies when comparing medical sales Reps' performance. The calculated T equals -9.006 which showed statistical significant of 0.000 which is below 0.05. Whereas the mean of the generic pharmaceutical companies is 1.5789, it is 2.5373 for the multinational pharmaceutical companies. Which means that: the performance of the medical sales Reps in multinational companies is higher than the performance of the medical sales Reps in generic pharmaceutical companies.

5- 1- 3 Group three hypotheses:

Group three hypotheses state if there is any significant effect between all the independent variables together and the performance of medical sales Reps using multiple regression, and for each independent variable apart using linear regression.

Table 22. Testing the third group of hypotheses: Linear & multiple regression results.

No.	Variables	R	R ²	F- test	Sig.
1	All independent variables Vs. Performance	0.308	0.095	2.041	0.066
2	Wages system Vs. Performance	0.159	0.025	3.173	0.077
3	Evaluation system Vs. Performance	0.158	0.025	3.129	0.079
4	Training schedule Vs. Performance	0.165	0.027	3.428	0.067
5	Target sales Vs. Performance	0.093	0.009	1.075	0.302
6	Promotional system Vs. Performance	0.018	0.000	0.038	0.846
7	Personality traits Vs. Performance	0.165	0.027	3.402	0.068

Table (22) above shows the results of using both linear and multiple regression to test the third group of hypotheses:

Hypothesis one: There is no significant effect between all the independent variables together and the performance of medical sales Reps.

As results show there is no significant effect between all the independent variables together and the performance (dependent variable) of medical sales Reps. The F-test was 2.041 with no significance (sig. = 0.066 which is above 0.05).

Hypothesis two: There is no significant effect between each of the independent variables and the performance of the medical sales Rep.

Regarding other related sub hypotheses, table (22) above demonstrates that there is no significant effect between each independent variable and the performance of the medical sales Rep, as follows:

1- There is no significant effect between wages system for medical sales Reps and their performance.

As results show there is no significant effect between wages system and the performance (dependent variable) of the medical sales Rep. The F-test was 3.173 with no significance (sig. = 0.077 which is above 0.05).

2- There is no significant effect between evaluation system performed to medical sales Reps and their performance.

As results show there is no significant effects between evaluation system and the performance of a medical sales Rep. The F- test was 3.129 with no significance (sig. = 0.079 which is above 0.05).

3- There is no significant effect between the training schedule of medical sales Reps and their performance.

As results show there is no significant effect between training schedule and the performance of the medical sales Rep. The F-test was 3.428 with no significance (sig. = 0.067 which is above 0.05).

4- There is no significant effect between sales targets required from medical sales Reps and their performance.

As results show there is no significant effect between sales target and the performance of medical sales Reps. The F-test was 1.075 with no significance (sig. = 0.302 which is above 0.05).

5- There is no significant effect between promotional system applied by medical sales Reps and their performance.

As results show there is no significant effect between promotional system and the performance of the medical sales Reps. The F-test was 0.038 with no significance (sig. = 0.846 which is above 0.05).

6- There is no significant effect between Personality traits of the medical sales Reps and their performance.

As results show there is no significant effect between personality traits and the performance of the medical sales Reps. The F- test was 3.402 with no significance (sig. = 0.068 which is above 0.05).

As discussed above all the hypotheses regarding that there is no effects between each independent variable and the performance of the medical sales Rep were accepted.

5- 1- 4 Group four hypotheses:

Group four hypotheses state if there is any significant effect between all the independent variables together and the performance of the medical sales Rep using

multiple regression, and for each independent variable apart using linear regression in the generic pharmaceutical companies only.

Table 23. Testing the fourth group of hypotheses: Linear & multiple regression results (Generic companies).

No.	Variables	R	R ²	F- test	Sig.
1	All independent variables Vs. Performance	0.399	0.160	1.582	0.172
2	Wages system Vs. Performance	0.134	0.018	1.009	0.319
3	Evaluation system Vs. Performance	0.236	0.056	3.239	0.077
4	Training schedule Vs. Performance	0.213	0.046	2.626	0.111
5	Target sales Vs. Performance	0.016	0.000	0.014	0.907
6	Promotional system Vs. Performance	0.040	0.002	0.087	0.769
7	Personality traits Vs. Performance	0.283	0.080	4.771	0.033

Table (23) above shows the results of using linear and multiple regression to test the fourth group of hypotheses:

Hypothesis one: There is no significant effect between all the independent variables together and the performance of medical sales Reps in the generic pharmaceutical companies.

As results show there is no significant effect between all the independent variables together and the performance (dependent variable) of the medical sales Reps in the generic pharmaceutical companies. The F-test was 1.582 with no significance (sig. = 0.172 which is above 0.05).

Hypothesis two:

There is no significant effect between each of the independent variables and the performance of a medical sales Rep in the generic pharmaceutical companies.

Regarding other related sub hypotheses, Table (23) above demonstrates that there is no significant effect between each independent variable (wages system, evaluation, training, target sales and promotional system) and the performance of the

medical sales Rep in the generic pharmaceutical companies, but only Personality traits vs. performance show a significant effects (sub hypothesis six) as follows:

1- There is no significant effect between wages system for medical sales Reps and their performance in generic pharmaceutical companies.

As results show there is no significant effect between wages system and the performance (dependent variable) of medical sales Reps in the generic pharmaceutical companies. The F-test was 1.009 with no significance (sig. = 0.319 which is above 0.05).

2- There is no significant effect between evaluation system performed to medical sales Reps and their performance in generic pharmaceutical companies.

As results show there is no significant effect between evaluation system and the performance (dependent variable) of medical sales Reps in the generic pharmaceutical companies. The F-test was 3.239 with no significance (sig. = 0.077 which is above 0.05).

3- There is no significant effect between training schedule of medical sales Reps and their performance in generic pharmaceutical companies.

As results show there is no significant effect between training schedule and the performance (dependent variable) of medical sales Reps in the generic pharmaceutical companies. The F- test was 2.626 with no significance (sig. = 0.111 which is above 0.05).

4- There is no significant effect between sales targets required from medical sales Reps and their performance in generic pharmaceutical companies.

As results show there is no significant effect between sales target and the performance (dependent variable) of medical sales Reps in the generic pharmaceutical

companies. The F-test was 0.014 with no significance (sig. = 0.907 which is above 0.05).

5- There is no significant effect between promotional system applied by medical sales Reps and their performance in generic pharmaceutical companies.

As results show there is no significant effect between promotional system and the performance (dependent variable) of medical sales Reps in the generic pharmaceutical companies. The F-test was 0.087 with no significance (sig. = 0.769 which is above 0.05).

6- There is no significant effect between Personality traits of medical sales Reps and their performance in generic pharmaceutical companies.

As results show there is a significant effect between Personality traits and the performance (dependent variable) of medical sales Reps in the generic pharmaceutical companies. The F-test was 4.771 with statistical significant (sig. = 0.033 which is below 0.05).

As discussed above regarding the sample representing the generic pharmaceutical companies only, the only independent variable that showed a significant effect with the performance is the Personality traits.

5- 1- 5 Group five hypotheses:

Group five hypotheses state if there is any significant effect between all the independent variables together and the performance of a medical sales Rep using multiple regression, and for each independent variable apart using linear regression in the multinational pharmaceutical companies only.

Table 24. Testing the fifth group of hypotheses: Linear & multiple regression results (Multinational companies).

No.	Variables	R	R ²	F- test	Sig.
1	All independent variables Vs. Performance	0.237	0.056	0.597	0.731
2	Wages system Vs. Performance	0.057	0.003	0.210	0.648
3	Evaluation system Vs. Performance	0.036	0.001	0.085	0.771
4	Training schedule Vs. Performance	0.168	0.028	1.896	0.173
5	Target sales Vs. Performance	0.068	0.005	0.304	0.583
6	Promotional system Vs. Performance	0.013	0.000	0.011	0.915
7	Personality traits Vs. Performance	0.005	0.000	0.002	0.966

Table (24) above shows the results of using linear and multiple regression to test the fifth group of hypotheses:

Hypothesis one: There is no significant effect between all the independent variables and the performance of medical sales Reps in the multinational pharmaceutical companies.

As results show there is no significant effect between all the independent variables together and the performance (dependent variable) of medical sales Reps in multinational pharmaceutical companies. The F-test was 0.597 with no significance (sig. = 0.731 which is above 0.05).

Hypothesis two:

There is no significant effect between each of the independent variables and the performance of medical sales Reps in multinational pharmaceutical companies.

Regarding other related sub hypotheses, table (24) above demonstrates that there is no significant effect between each independent variable (wages system, evaluation, training, target sales, promotional system and personality traits) and the performance of the medical sales Reps in the multinational pharmaceutical companies, as follows:

1- There is no significant effect between wages system for medical sales Reps and their performance in multinational pharmaceutical companies.

As results show there is no significant effect between wages system and the performance (dependent variable) of medical sales Reps in the multinational pharmaceutical companies. The F- test was 0.210 with no significance (sig. = 0.648 which is above 0.05).

2- There is no significant effect between evaluation system performed to medical sales Reps and their performance in multinational pharmaceutical companies.

As results show there is no significant effects between evaluation system and the performance (dependent variable) of medical sales Reps in the multinational pharmaceutical companies. The F- test was 0.085 with no significance (sig. = 0.771) which is above 0.05.

3- There is no significant effect between training schedule of medical sales Reps and their performance in multinational pharmaceutical companies.

As results show there is no significant effect between training schedule and the performance (dependent variable) of medical sales Reps in the multinational pharmaceutical companies. The F- test was 1.896 with no significance (sig. = 0.173) which is above 0.05.

4- There is no significant effect between sales targets required from medical sales Reps and their performance in multinational pharmaceutical companies.

As results show there is no significant effect between sales target and the performance (dependent variable) of medical sales Reps in the multinational pharmaceutical companies. The F- test was 0.304 with no significance (sig. = 0.583) which is above 0.05.

5- There is no significant effect between promotional system applied by medical sales Reps and their performance in multinational pharmaceutical companies.

As results show there is no significant effect between promotional system and the performance (dependent variable) of medical sales Reps in the multinational pharmaceutical companies. The F- test was 0.011 with no significance (sig. = 0.915) which is above 0.05.

6- There is no significant effect between Personality traits of medical sales Reps and their performance in multinational pharmaceutical companies.

As results show there is no significant effect between Personality traits and the performance (dependent variable) of medical sales Reps in multinational pharmaceutical companies. The F- test was 0.002 with statistical significant (sig. = 0.966) which is above 0.05.

As discussed above regarding the sample representative to multinational pharmaceutical companies only, all independent variables showed no significant effect with the performance.

5- 2 Discussion and analysis of results:

The objectives of the research were to study the factors affecting the pharmaceutical medical sales Reps' performance in both generic and multinational pharmaceutical companies in Jordan, and at the same time to find if there are any differences regarding medical sales Reps in both generic and multinational pharmaceutical companies.

The population were medical sales Reps in the Jordanian pharmaceutical manufacturing companies and multinational pharmaceutical companies. The final selected sample where from the data was collected was 57 medical sales Reps from eight generic and 67 medical sales Reps from ten multinational pharmaceutical

companies. The data collected were analyzed using one way ANOVA, independent-sample T- test, linear and multiple regression.

The research found that there were differences between generic and multinational pharmaceutical companies when compared together in light of all independent variables, and when comparing each independent variable alone in both generic and multinational pharmaceutical companies; only wages system and training schedules showed differences.

These results clarified that multinational companies offer better wages system than generic ones, as table (18) showed that 64 medical sales Reps in the multinational companies received a salary over JD351, while in the generic companies only 26 medical sales Reps received same. Also training schedules conducted by multinational companies are done with more professionalism and includes travelling to the country of origin to take highly professional training. While training in the generic companies is routine and takes a shorter period of time.

Then the research concluded that there are significant statistical differences between generic and multinational pharmaceutical companies when comparing medical sales Reps' performance. Which means that the performance of the medical sales Reps in multinational companies is higher than the performance of the medical sales Reps in generic pharmaceutical companies. And this result could be due to that multinational pharmaceutical companies offer better wages system and training schedules -as mentioned above-.

Also the research indicated that there are no effects between the independent variables together (wages system, evaluation, training, sales target, promotional system,

and personality traits) and the dependent variable (medical sales Reps' performance) as shown in figure (2) below. These results could be justified by the idea that the performance of medical sales Reps in the Jordan market is not affected by these variables mentioned above, and there should be other factors (variables) that have a noticeable effect on the performance, such as: effective supervising, the effect of number of calls per month, number of promoted products, type of management and many other factors that should be studied in other researches.

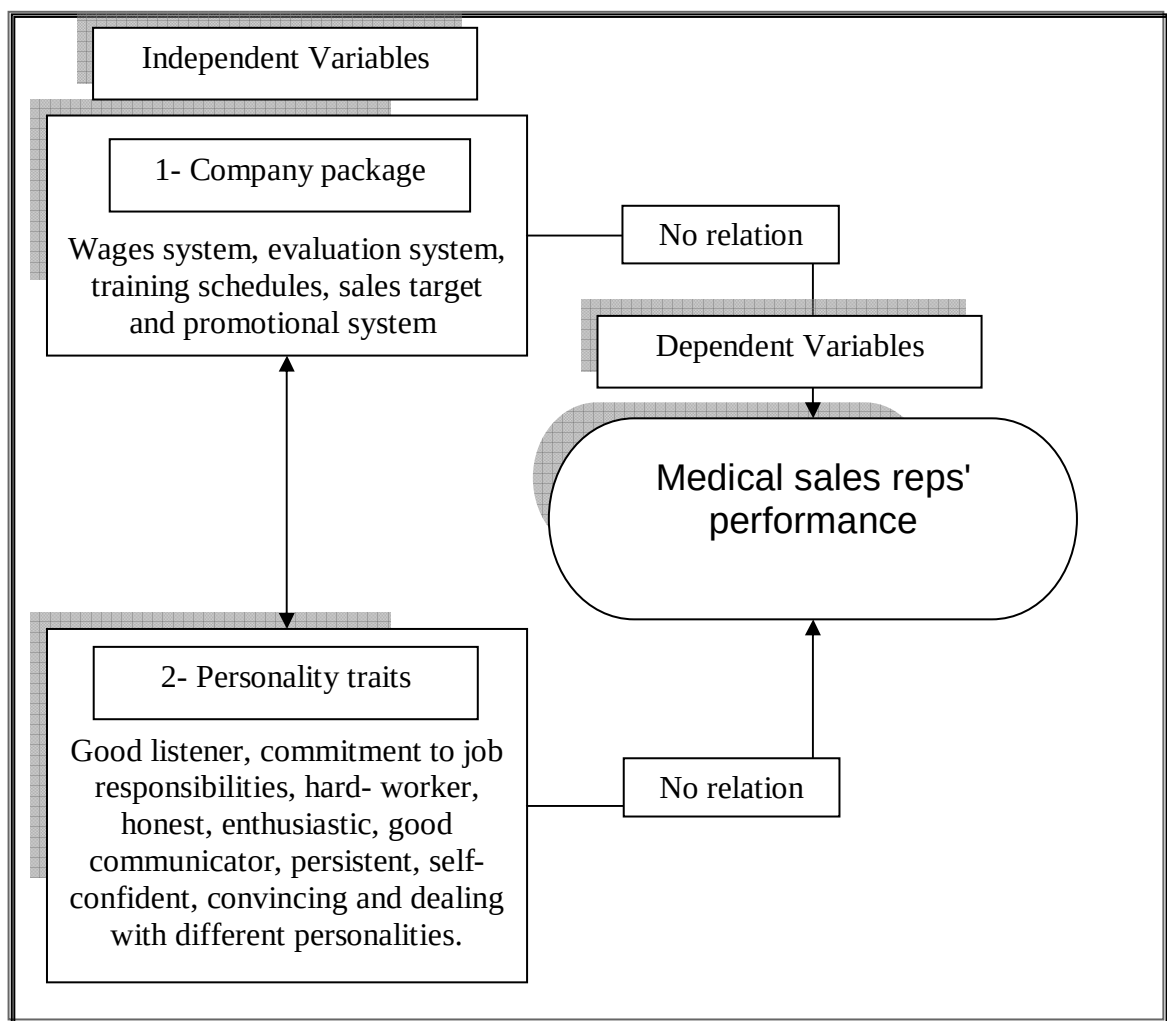


Figure 2. Effects between the independent and dependent variables (for the total sample and for multinational companies only)
Prepared by the researcher.

And when the effects between the independent and dependent variables were studied for both generic and multinational companies independently; there were no effects between the variables concerning the multinational companies (figure (2)), while regarding generic companies; there was a positive effect only between the personality traits and the performance of the medical sales Reps as shown in figure (3).

These results might be due to the fact that medical sales Reps in both generic and multinational companies are all Jordanians and they grow in the same culture and environment, so that the research could not indicate a noticeable differences or effects when comparing generic and multinational pharmaceutical companies.

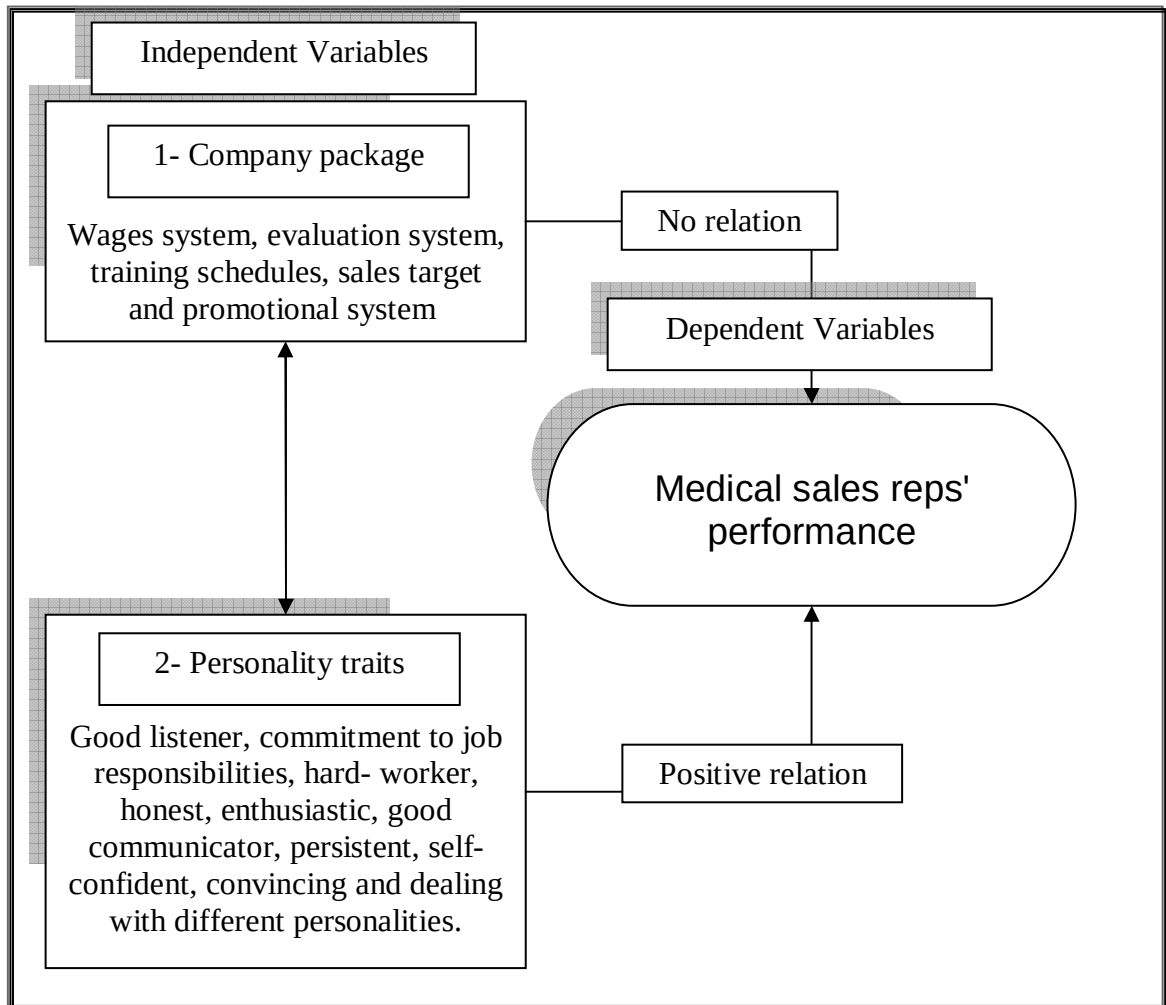


Figure 3. Effects between the independent and dependent variables (for generic companies only).

Prepared by the researcher.

5- 3 Conclusions and recommendations:

5- 3- 1 Conclusions:

The research conclusions are:

First: There are differences between generic and multinational pharmaceutical companies regarding all independent variables together, and when comparing each independent variable apart there is a significant difference regarding wages system and training schedules only.

Second: There are significant statistical differences between generic and multinational pharmaceutical companies when comparing medical sales Reps' performance. And that means the performance of the medical sales Reps in multinational companies is higher than the performance of the medical sales Reps in generic pharmaceutical companies.

Third: There is no significant effect between all independent variables and the performance of medical sales Reps, or between each of the independent variables and the performance of medical sales Reps in both generic and multinational pharmaceutical companies.

This indicates that the performance of medical sales Reps in both generic and multinational pharmaceutical companies does not depend highly on each of the independent variables included in the research (wages system, evaluation, training schedule, target sales, promotional system and personality traits).

Fourth: There is no significant effect between all independent variables and the performance of medical sales Reps, or between each of the independent variables and the performance of medical sales Reps in generic pharmaceutical companies. But there is a significant effect between the independent variable (personality traits) and the performance of medical sales Reps in generic pharmaceutical companies.

This suggests that the major independent variable which shows a significant effect to the performance of medical sales Reps in generic pharmaceutical companies is the personality traits, so all the other independent variables show no significant effects to the performance of medical sales Reps.

Fifth: There is no significant effect between all independent variables and the performance of medical sales Reps, or between each of the independent variables and the performance of medical sales Reps in multinational pharmaceutical companies.

So it is indicated that all the independent variables have no direct effect on the performance of medical sales Reps in multinational pharmaceutical companies.

5- 3- 2 Recommendations:

1. Generic pharmaceutical companies should design a fair and adequate wages system to stimulate the performance of their medical sales Reps, and this should include a mix of basic salary, car allowances and incentives, taking into account that the wages system should be comparable to that available in multinational pharmaceutical companies.

2. Generic pharmaceutical companies should also take a great and deep interest in developing training schedules covering all medical sales Reps needs and increase their knowledge to become better and comparable to others.

3. The training schedules should be well planned and the company must follow up with medical sales Reps in order to evaluate the results and the effects of training on their work, and also to assure the fulfillment of the training goals.

4. For gathering a great advantage of this research, other future researches should be held to cover other variables that might have great influences on the performance of the medical sales Reps especially in the generic companies, and to reach and find out any major obstacles that stand ahead, and then all these problems should be solved.

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Appendix I: Independent and dependent variables questionnaire

Dear Medical sales representative,

The attached questionnaire is designed to study the factors affecting medical sales representative's performance in pharmaceutical manufacturing companies. The information you provide will help us to specify the main factors affecting medical sales representatives in Jordan.

Because you are the one who can give us the correct information regarding this issue, I kindly request you to respond to the questions as precisely as you can.

Note: your answers will be kept strictly confidential, and a summary of the results will be mailed to your company after the data are analyzed if you are interested.

Thank you for your time, effort, and your contribution for the well being of our medical sales representatives in Jordan.

Your Sincerely,
Researcher

- Company name: _____ .

A)- Please put (X) beside the chosen answer:

1)- Gender:

☐ Female

☐ Male

2)- Age:

☐ From 22- 26 years

☐ From 27- 31 years

☐ From 32- 36 years

☐ More than 36 years

3)- Educational Level:

☐ Bachelor Degree

☐ Master Degree

☐ Doctoral Degree

☐ Others

4)- Marital status:

☐ Married

☐ Single

☐ Others

5)- Experience years:

☐ From 1- 3 years

☐ From 4- 6 years

☐ From 7- 10 years

☐ Over 10 years

6)- Monthly salary (basic) in year 2006:

☐ From 200- 250 JD	☐ From 251- 300 JD
☐ From 301- 350 JD	☐ From 351- 450 JD
☐ More than 450 JD	

7)- Monthly car allowance in year 2006:

☐ From 150- 200 JD	☐ From 201- 249 JD
☐ From 250- 299 JD	☐ From 300- 350 JD
☐ More than 350 JD	

B)- Please put (X) under the proper answer for each sentence:

No.	Sentence	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
• Wages system:						
1.	The salary given to me is fair compared with the effort performed by me.					
2.	Salary system offers medical sales representatives good settlement over the next years (job security).					
3.	Salary system is very clear and understandable by me.					
4.	Salary system in my company needs to be investigated and redesigned again to be comparable with other company's systems.					
5.	Car allowance provided by the company is satisfactory enough to cover all my car expenses now.					
6.	Incentive system is well calculated and understandable by me (e.g. 13 th / 14 th salary, target achievement incentives, . . . etc).					

No.	Sentence	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
• Evaluation (appraisal) system:						
7.	I feel that my company's annual evaluation (appraisal) system is good for my performance.					
8.	My evaluation (appraisal) reports affect the future promotional decisions (الترقية)					

9)- My company promotional strategy is to:

☐

Cover all doctors.

☐

Cover selected number of doctors.

No.	Sentence	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
• Promotional system:						
10.	I can cover all the doctors in my area within the required time (cycle).					
11.	I believe that my team members are enough to cover all areas required in Jordan market.					
12.	I should visit all doctors in my area despite their classifications (A,B,C).					

C)- Please put (X) under the proper answer for each sentence:

No.	Sentence	Always	Usually	Some-times	Rarely	Never
• Evaluation (appraisal) system:						
1.	My company applies an annual evaluation (appraisal) system for its medical sales representatives.					
2.	My supervisor discusses the evaluation (appraisal) reports with me.					
3.	My company's annual evaluation (appraisal) system is based only on sales targets achievements.					

4)- My company training programs are held:

☐

Inside my company.

☐

Outside my company.

No.	Sentence	Always	Usually	Some-times	Rarely	Never
• Scientific and marketing training:						
5.	My company offers training programmes.					
6.	The trainers are employees from my own company.					
7.	My company trainers are highly qualified.					
8.	The trainer experiences are remarkable.					
9.	Training courses are done based on medical sales representative's needs.					
10.	Training courses offered by my company have a noticeable impact on increasing my productivity (sales).					
11.	Training courses have great influence on my attitudes and personality.					
A)- Scientific knowledge training:						
12.	Training courses that I have attended focus also on improving my scientific knowledge.					
13.	Training is prepared for newly launched products only.					
14.	Training includes specific information of the disease and its treatment (medical background).					
B)- Marketing and selling skills training:						
15.	Training courses that I have attended focus on improving my selling and marketing skills					
16.	Training courses improve my skills to deal with all kinds of situations with various customers.					
• Sales target:						
17.	Estimated sales target of my company are set by a qualified manager.					
18.	Medical sales representatives have low involvement in the estimation of the sales targets.					
19.	Sales targets are higher each year no matter what the achievements were in the previous year.					
20.	Target sales are estimated according to the overall market sales comparing with all other companies.					
21.	My sales achievements are better than others.					

No.	Sentence	Always	Usually	Some-times	Rarely	Never
22.	The value of the sales target required to be achieved is the same for all medical sales representatives.					
23.	I need to work very hard under high pressure to achieve my target.					
• Promotional system:						
24.	Areas that I am responsible for can be covered each cycle.					
25.	Areas are distributed equally between all medical sales representatives (according to potentiality).					
26.	Promotional tools are available all over the year.					
27.	Promotional tools have a major role in achieving higher sales.					
28.	My group is responsible for promoting many pharmaceutical products that result in losing the focus on specific products over others (dilution).					
29.	My company's products are distributed equally between each group (if applicable).					
30.	Each group contains a range of different product categories (if applicable).					

D)- Do you think that the following personality traits below are important for your career as a successful medical sales representative:

No.	Traits (skills)	Very important	Important	Neutral	Not important	Not very important
1.	Good listener					
2.	Committed to job responsibilities					
3.	Hard- worker					
4.	Honest					

No.	Traits (skills)	Very important	Important	Neutral	Not important	Not very important
5.	Enthusiastic					
6.	Good communicator					
7.	Persistent					
8.	Self- confident					
9.	Convincing					
10.	Able to deal with different personalities (flexible)					

E)- Please put (X) beside the chosen answer:

1)- My estimated annual sales target (value) in year 2006 equal:

----- JD.

2)- My sales achievement (%) in year 2005 (or last 12 months) equal:

----- %.

3)- My average achievement (%) through my career as a medical sales representative is almost equal to:

☐

Between 25%- 49%

☐

Between 50%- 74%

☐

Between 75%- 99%

☐

Between 100%- 120%

☐

More than 120%

4)- My overall performance is:

☐

Better than others

☐

Equal to others

☐

Below others

Appendix II: Personality traits questionnaire

Name: _____ Job title: _____

الرجاء تحديد مدى أهمية كل خاصية أو صفة (مهارات) من الصفات الواردة أدناه والتي يجب أن تتوفر لضمان نجاح مندوب الدعاية الطبية:

No.	Traits (skills)	Very important	important	Neutral	Not important	Not very important
• Skills:						
1	Scientific knowledge المعرفة العلمية					
2	Good communication مهارات الاتصال					
3	Good negotiation مفاوض جيد					
4	Good listening مستمع جيد					
5	Time management الوقت إدارة					
6	Social intelligence اجتماعي					
• Traits:						
7	Challenging personality شخصية قوية					
8	Team work العمل ضمن فريق					
9	Fluent speaking طلاقة اللسان					
10	Convincing مقنع					

No.	Traits (skills)	Very important	important	Neutral	Not important	Not very important
11	Commitment to job responsibilities الالتزام بمسؤوليات العمل					
12	Enthusiasm الحماس					
13	Creativity مبدع و خلاق					
14	Problem solving القدرة على حل المشاكل					
15	Presentable حسن المظهر					
16	Self- confidence الثقة بالنفس					
17	Noticeability					
18	Respecting others احترام الآخرين					
19	Commitment to appointments الالتزام بالمواعيد					
20	Honesty الصدق					
21	Adapting to the environment التكيف مع الظروف					
22	Dealing with different personalities التعامل مع مختلف الشخصيات					
23	Fast learning سريع التعلم					
24	Self- development تطوير الذات					
25	Challenger متحدي					

No.	Traits (skills)	Very important	important	Neutral	Not important	Not very important
26	Leadership قائد					
27	Hard- working نشيط في العمل					
28	Talent موهوب					
29	Interactive spirit روح متفاعلة					
30	Mature thinking التفكير الناضج					
31	Ambition طموح					
32	Persistence المثابرة و التصميم					
33	Patience الصبر					
34	Trust- worthy جدير بالثقة					
35	Positive attitudes مواقف ايجابية					
36	Initiative روح المبادرة					
37	Aggressiveness مكافح					
38	Motivation حافز					
39	Smartness ذكي					

العوامل المؤثرة على أداء مندوبي الدعاية الطبية في كل من شركات الأدوية الأجنبية و

المحلية في الأردن :دراسة مقارنة

إعداد

يارا علي مصلح

المشرف

الأستاذ الدكتور هاني الضمور

ملخص

يلعب مندوبو الدعاية دورا هاما في معظم الشركات ، ويقللوا من المسافة بين الشركة والعميل .ويعتبر بعض العملاء مندوبي الدعاية ممثلي الشركة.

لذا تناول هذا البحث دراسة العوامل المؤثرة على أداء مندوبي الدعاية الطبية في كل من شركات الأدوية المحلية و الأجنبية .وفي نفس الوقت لمعرفة إذا كان هنالك أية فروق بين شركات الأدوية المحلية و الأجنبية. احتوى مجتمع هذه الدراسة مندوبو الدعاية الطبية في مصانع شركات الأدوية المحلية الأردنية وشركات الأدوية الأجنبية .واحتوت عينة الدراسة النهائية على 57 مندوب دعاية طبية في ثمانية شركات أدوية محلية أردنية و على 67 مندوب دعاية طبية في عشرة شركات أدوية أجنبية .و قد تم استخدام كل من : One way ANOVA و Independent- sample T- test و linear regression و multiple regression لتحليل البيانات التي تم جمعها إحصائيا."

وننتج عن هذا البحث وجود فروقات إحصائية بين شركات الأدوية المحلية والأجنبية عند المقارنة بينهم بالنسبة للمتغيرات المستقلة) لنظام الأجور، التقييم، التدريب، الأهداف البيعية، نظام الترويج و الصفات الشخصية (مجتمعة، وعند المقارنة بينهم بالنسبة للمتغيرات المستقلة كلا "على حدا؛ فقد وجد اختلاف بينهم بالنسبة لنظام الأجور و برامج التدريب فقط.

وأيضاً وجدت فروقات إحصائية بين شركات الأدوية المحلية والأجنبية عند المقارنة بينهم بالنسبة للمتغير التابع) أداء مندوبي الدعاية الطبية .(وعند دراسة العلاقة بين المتغيرات المستقلة و المتغير التابع) الأداء ؛ فقد وجدت علاقة ايجابية بين الصفات ا لشخصية وبين أداء مندوبي الدعاية الطبية في شركات الأدوية المحلية. لقد توصلت الدراسة إلى توصيات، منه ا أنه يجب على شركات الأدوية المحلية تصميم نظام أجور عادل وكافي، مع تطوير وتخطيط نظام تدريب يغطي احتياجات ومتطلبات مندوبي الدعاية الطبية.