

ROLE OF WOMEN PRADHANS IN PANCHAYATI
RAJ SINCE 2000: A CASE STUDY OF ALIGARH
DISTRICT

THESIS

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CHAPTER 5

SUMMARY, FINDINGS, AND SUGGESTIONS

5.1 Introduction

The objective of this chapter is to conclude the findings obtained based on this entire research work conducted on the Jordanian pharmaceutical manufacturing companies. This chapter deals with the conclusions drawn from the previous four chapters and based on these inferences; it gives various measures to improve the ways of exploiting the intellectual property assets in Jordanian pharmaceutical manufacturing companies. This chapter also deals with suggestions to provide it to the management of pharmaceuticals organizations to make their organizations a favorite and an attractive destination for future investment as well as development.

5.2 Summary

The present research study was undertaken to investigate the role of intellectual property assets on value creation: a study of Jordanian pharmaceutical manufacturing companies. There are a lot of difficulties as well as challenges faced by pharmaceutical manufacturing companies in Jordan to achieve their services and goals. These difficulties, as well as challenges, necessitate making research study to investigate the role of intellectual property assets on value creation; particularly these assets have become one of the most important assets in the knowledge-based economy as it reported by many studies, and without them, the organization will stop achieving a good position in the market. This sector which called pharmaceutical manufacturing companies is a very sensitive sector in term of international as well as national fluctuating in addition to Pharmaceutical organizations is regard as knowledge-based organizations as well as intensive-capital. These kinds of organizations depend on knowledge and intensive-capital in achieving their economic success and their goals.

In the knowledge-based economy, pharmaceutical organizations draw on intellectual property (IP) in achieving sustainable competitive advantage, so the pharmaceutical organization must make substantial efforts to deliver unique value to the customers. To achieve that the organizations have to develop their unique capability, and to

develop their inimitable core capabilities where intellectual property assets (IPA) part of this core capability.

The importance of this sector comes from this sector regards as the second largest industry in Jordan, and this sector considered as an export-driven sector. The Jordanian Pharmaceutical sector has a significant role in diminishing of unemployment; this sector contributes to employing 3.5% of the total workforce. This sector regard as the highest paid sector in Jordan (Global Investment House , 2007)

The main objective of this study is to investigate if there is the role of intellectual property assets on value creation. The study conducted on Jordanian pharmaceuticals industry because of the growing contribution of the sector in development, economic progress, investments in recent years in Jordan. The main hypothesis is there is no statistically significant role of Intellectual Property Assets on Value Creation. This main hypothesis divided into five sub-hypothesis; every sub-hypothesis represents one of the components of the intellectual property; these components are patents, trademarks, industrial designs, geographical indications, and copyright.

The instrument used in this study is questionnaire so this study regarded as an applied study. The questionnaire used in this study is written in the form of a statement using a 5 -point Likert scale (ranging from (1) strongly agree to (5) strongly disagree). This questionnaire designed to measure the main objective of this study which is to identify the role of intellectual property assets on value creation and to investigate the rest of the objectives of this study; The rest of the objectives of this study are divided into five sub-objectives which are (I) Identify the role of Copyright on value creation. (II) Identify the role of Patents on value creation. (III) Identify the role of Trademarks on value creation. (IV) Identify the role of Industrial designs on value creation (V) Identify the role of Geographical indications on value creation.

In respect with the response rate in this study, the response rate was very high, and it was 89% which means that this rate will reflect on the results of this study and the results will make sense at the environment of the pharmaceuticals companies.

5.3 General Findings

5.3.1 Demographic Variables

This study analyzed demographic variables for employees who work in Jordanian pharmaceuticals companies who participated in the study to get a general view of the population. By analyzing demographic variables of Jordanian pharmaceuticals companies, we can know the attitude of employees toward intellectual property assets and what kind of knowledge they have about this kind of assets from top management to low level .by analyzing demographic variables, that consist of Sex, Age Education, specialization, Experience, and position or Job. The study has the following findings:

- It was found that the percent of male employees in Jordanian pharmaceuticals companies is 71.0%, and the percent of Female employees in Jordanian pharmaceuticals companies is 29.0%. This means the most employees in Jordanian pharmaceuticals companies are male and constitute Two-thirds, and female employees constitute One-thirds.it also means that the females are playing a very important role in this industry and they are contributing well to the economy.
- It was found that the percent of employees who belong to category (18-24 years) is 11.2%, and the percent of employees who belong to category (25-34years) is 27.1%, and the percent of employees who belong to category (35-44 years) is 33.6%, and the percent of employees who belong to category (45-54 years) is 28.0%. It means the most of workers belongs to category (35-44 years) this means the workers in this sector are youth and in their prime and able to work and produce. The second category in order is (45-54 years), it means that the workers are expert and have experienced and they can guide the others and give them the right instruction, and that constitutes a unique mixture between youth and experts.
- It was found that the percent of the graduated employees in Jordanian pharmaceuticals companies is 0.86 %, and the percent of the post graduated employees in pharmaceuticals companies is 0.11%. The percent of the employee having a Ph.D. degree is 0.03 %. It means that most employees in Jordanian pharmaceuticals companies are graduated, then postgraduate and finally Ph.D. The previous percentages indicate that the pharmaceutical industry is based on

adequate and qualified human resources and this sector use human capital and technology in good balance in achieving their economic success and other goals.

- It was found that the percent of employees who their specialization is accounting in Jordanian pharmaceuticals companies are 6.5%. The percent of employees who their major is management is 22.4%, the percent of the employee with finance as major in Jordanian pharmaceuticals companies is 0.9%. And the percent of the employee who their specialization is human resources management is 6.5%.and the percent of the employee who their specialization is other is 63.3%. It means the specialization which called others to constitute the most employees, followed by management specialization then accounting and HRM specialization and finally finance specialization. It also means this sector does not focus on having economics specializations in the same way they do to have more qualified technicians, technical specialists, operators, and pharmacists.
- It was found that the percent of employees have experience (Less than 5 years) is 15%, and The percent of employees having experience (6-10 years) is 10.3%, and The percent of employees having experience of (11-15) years is 33.6%, and The percent of employee having experience of (16-20) years is 0.15 %. And The percent of employees having experience more than 20 years is 26.2%. It means that the percent of employees having experience in the category (11-15 years) is highest, followed by category (more than 20 years) then categories (16-20) and (Less than five years), and the lowest experience in the category (6-10 years). It also means the most of the employees are experts and have enough experiences in this field so that they can produce products at very attractive prices and very high quality and it will support the abilities to export the excellent pharmaceutical services to the world because of this unique experience. Importantly, *a cumulative percentage of 59.8% of the responses were given by the respondents having experience ranging from 11-15 and more than 20 years of experience. This could be an advantage for this study where the majority of the respondents have relatively high experience which may enable them to give their responses based on the professional career and experience rather than age or gender factors that may not have a relationship with the purpose of this study.*

- It was found that the percent of employees have job title (Unit Heads) is 0.20 %, and the percent of the employees has a job title (Section Heads) is 0.15%. The percent of the employees have job title (Departmental heads) is 0.36%, and the percent of the employees have job title (Top managers) is 0.06%.and the percent of the employee has job title (other) is 0.23%. It means the job title which shows most response is (Departmental Heads), then (Others) followed by (Unit Heads), then the employee who have job title (Section Heads), then the employee who have job title (Top Managers). *It is noteworthy to mention that 0.06 % of the responses were obtained from top managers, 0.36% of the responses were obtained from the departmental heads, which may signify that almost half of the responses were provided by top management levels; which means the previous responses from top management levels constitute a cumulative percentage about 0.42 % of the responses, and this could be an advantage for this study because the top level of management can provide more accurate answers more the low level of the management particularly this topic is related to the top management.*

5.3.2 Descriptive Statistics of the Variables

Table 4.11 in the previous chapter illustrates descriptive statistics including minimum, maximum, mean and standard deviations. Descriptive statistics were employed to describe the variables used in studying the role of patents, trademark, industrial design and geographical indications and copyright on value creation. All these variables used in the present study were measured using a five-Likert scale anchored by the value of 1 representing strongly agree (the minimum value) to the value of 5 representing strongly disagree (the maximum value).

Overall, the results show that there are a number of 107 respondents with no missing data. The minimum value shows that all the variables have a minimum value of 1 which represents the first value of the five-Likert scale which is strongly agreed and the maximum value of all variables is five which represent the maximum value of the five Likert scale which strongly disagrees. This indicates that the responses of the respondents given were distributed with a range of a minimum 1 (strongly agree) to a maximum value of 5 (strongly disagree) the five-Likert scale were used by respondents. Further, *the results show that the mean value of the responses was 2. This indicates that the average responses of the respondents are focusing on the second Likert scale (Agree).*

In particular, the results provide that PATENTS has a distribution of responses distributed from a minimum one which indicates strongly agree and a maximum of five which represents strongly disagree. The mean value of responses for PATENTS also was 1.8374 which reflects that the average responses were focused on agreeing to responses with a low standard deviation (0.46). Similarly, TRDMAK had a minimum value of 1 and a maximum value of 5 with a mean value of 1.6280 and low standard deviation (0.39). Likewise, all other variables namely; INDSGN, GEOIND, CPYRGHT, and VALUCR individually had a minimum value of 1 and a maximum value of 5 with a mean value of 2.0336, 2.1776, 1.8019, and 1.8729 and low standard deviation (0.47, 0.77, 0.63 and 0.37 respectively).

The low value of standard deviation indicates that responses were not significantly different in their perceptions about the variables of the study and the role of PATENTS, TRADMAK, INDSGN, GEOIND and CPYRGHT on value creation. The lowest average value of responses was given in case of TRADMAK which was 1.63 with standards deviation of 0.39 against the highest average value of responses which provided in case of GEOIND (2.18) with standards deviation of 0.77. However, *looking to the results, there is no much variation and differences among the variables in terms of the values of minimum, maximum, mean and standard deviations.*

5.4 Main Findings

5.4.1 The Result of Hypothesis Testing

The hypotheses have tested in this study for clarifying the point of view in respect to general results of this study and according to population study to test the main hypothesis which is written in a null way which is there is no statistically significant role of Intellectual Property Assets on Value Creation. This main hypothesis divided into five sub-hypothesis. The study has the following results regarding the main hypothesis and sub hypothesizes:

- It was found that the study accepted the first null sub-hypothesis (H01-1) which states: There is no statistically significant role of **Copyright** on Value Creation in Jordanian pharmaceutical manufacturing companies. Therefore we rejected the alternative hypothesis which states there is a statistically significant role of Copyright on Value Creation in Jordanian pharmaceutical manufacturing

companies. This result indicated that the Copyright in Jordanian pharmaceutical manufacturing companies is not playing a very important role in the process of value creation, or the Copyright has not a positive relationship on value creation. *In the light of studying the conceptual framework of intellectual property assets it can be understood why the copyright does not play a very important role on value creation in this industry; because the copyright close to or it only protects the literary works such as newspaper articles, novels, and plays. It also protects computer programs, musical compositions, and movies. It also protects artistic works such as sculptures, paintings, photographs, and drawings. It also protects architecture. All the previous lists do not belong to the works of pharmaceutical manufacturing, and the previous lists are not basic units or are not inputs in the process of the manufacturing the medicines.*

- It was found that the study rejected the second null sub-hypothesis (H01-2) which states: There is no statistically significant role of **Patents** on Value Creation in Jordanian pharmaceutical manufacturing companies. Therefore we accepted the alternative hypothesis which states there is a statistically significant role of patents on Value Creation in Jordanian pharmaceutical manufacturing companies. This result indicated that the Patents in Jordanian pharmaceutical manufacturing companies is playing a very important role in the process of value creation, or the Patents has a positive relationship on value creation. In the light of studying the conceptual framework of intellectual property assets it can be understood why the patents do play a very important role in value creation in this industry; because(I)patents are very powerful tool in strengthening the position of pharmaceutical organizations in the market; because it has the ability to stop others from using the invention and it will help pharmaceutical organizations in getting competition advantages therefore that will reflect at the power of their organizations. (II)Patents are playing an important role in the process of increasing income and revenues because pharmaceutical organizations can sell it or license it. (III)Patents are playing an important role in the process of increasing the power of negotiating particularly if the pharmaceutical organizations got patents portfolio. (IV) When the pharmaceutical organizations got patents portfolio that will create Positive image, and that will be as indicators as well as incentives for investors to invest more money in the entities; because it has one

meaning that the management of pharmaceutical organizations are experts and specialists and have the technological capacity.

- It was found that the study accepted the third null sub-hypothesis (H01-3) which states: There is no statistically significant role of **Trademarks** on Value Creation in Jordanian pharmaceutical manufacturing companies. Therefore we rejected the alternative hypothesis which states there is a statistically significant role of trademark on Value Creation in Jordanian pharmaceutical manufacturing companies. This result indicated that the trademark in Jordanian pharmaceutical manufacturing companies is not playing a very important role in the process of value creation, or the trademark has not a positive relationship on value creation. In the light of studying the conceptual framework of intellectual property assets it can be understood why the trademarks do not play a very important role in value creation in this industry; because of (I) competition: from **Saudi Arabia pharmaceutical companies**: the trademarks of Jordanian pharmaceutical manufacturing companies are not able to compete with trademarks of Saudi Arabia pharmaceutical companies where they can produce the medicine at very low prices more than Jordanian companies as well as produce the medicine at very high standards, moreover they target the same markets that the Jordanian pharmaceutical companies targeting; therefore their trademarks are very famous and have positive impact more than Jordanian trademarks. And competition from **European and US companies' pharmaceutical companies**, these companies are experienced and perfect international reputation; It will be difficult for small companies such as Jordanian to create new products and to compete with experienced companies who are really can produce new products, and they have skilled technicians. And competition from **Pharmaceuticals Imports** to Jordanian markets and all of them are international brands, and it will be hard for Jordanian companies to be recognizable with them (II) the ability of Jordanian pharmaceuticals companies to access some markets, and that will be as obstacles in front of them to be making their trademarks remarkable. Their existence in some markets is still limited because of some external factors such as regulations from some countries. (III)The environment of business: in some countries there is political instability and the war is going on, and the general conditions are risky and insecure such as Libya, Syria, and Iraq. Like these circumstances will hinder

them from making their trademarks noticeable. Moreover, the economic situations are very weak, and the purchasing power of customers is very low. (III) Industrial designs sometimes play a substitute role instead of trademarks; this will be explained in the next point.

- It was found that the study rejected the forth null sub-hypothesis (H01-4) which states: There is no statistically significant role of **Industrial designs** on Value Creation in Jordanian pharmaceutical manufacturing companies. Therefore we accepted the alternative hypothesis which states there is a statistically significant role of Industrial designs on Value Creation in Jordanian pharmaceutical manufacturing companies. This result indicated that the Industrial designs in Jordanian pharmaceutical manufacturing companies are playing a very important role in the process of value creation, or the Industrial designs have a positive relationship on value creation. In the light of studying the conceptual framework of intellectual property assets it can be understood why the Industrial designs do play a very important role on value creation in this industry; The top management of organizations is taking care about it because they know that the industrial design is one of the most valuable assets, and the presence of this asset in the organizations is very crucial and important in the process of value creation for the stakeholders. (I)The top management realizes the importance of industrial designs at promoting their business and its effects on the customers demand which called strengthening the brand name; Because the industrial designs have power to make the products so attractive to customers and that of course because of the external appearance for products which will reflect at the directions of customer's and will lead to increase their demands for distinguished and attractive shapes because the external appearance of the products can be the key factor in the decision of the customers at the time of purchasing. (II)The sustainability or failure of the goods in the markets at least partially depends on the external look and visual features of shape, configuration, pattern or ornamental. (III) The matter of protection of industrial design for the same products can be eligible to get multi- protection such as under the law of industrial design, under the law of patents, and the law of copyright. (III) if the design of the products becomes a distinctiveness feature for those products, it can be protected as a 3D trademark: this point can be clarify: when the design of products obtain or gain distinctiveness or can work as logo

through its use in the market; in this case the products can be qualified to register a trademark, for example Apple's iPod and coca cola bottles.

- It was found that the study accepted the fifth null sub-hypothesis (H01-5) which states: There is no statistically significant role of **Geographical indications** on Value Creation in Jordanian pharmaceutical manufacturing companies. Therefore we rejected the alternative hypothesis which states there is a statistically significant role of Geographical indications on Value Creation in Jordanian pharmaceutical manufacturing companies. This result indicated that the Geographical indications in Jordanian pharmaceutical manufacturing companies are not playing a very important role in the process of value creation, or the Geographical indications have not a positive relationship on value creation. In the light of studying the conceptual framework of intellectual property assets it can be understood why the Geographical indications do not play a very important role on value creation in this industry; the customers in the whole world are taking into their account the place of origin for products and services which they use in their life. It is a step of higher importance for them since a lot of customers are taking care of this since they are searching for specific characteristics must be there in the products they wish to purchase it. The customers assume that the products which come from specific place carry particular characteristics that may have value. So the key function of the geographical indications (GI) is to differentiate the products in the markets and make them distinct for customers who are looking for the quality, reputation and other characteristics of that place of origin. But in Jordanian pharmaceuticals environment it does not play many roles on value creation, and that can be returned to many reasons: to make geographical indications have roles on value creation there are many important considerations which are adequate management practices, quality controls, ability to reach to resources and marketing capabilities; maybe these considerations are not available or maybe they are available but at not that higher level of Professionalism where About 50% of the markets shares are dominated by multinational companies. These multinational companies are present in the market directly or through under-licensing/contract manufacturing. Some of the multinational companies are in corporation with local companies in marketing arrangements (Global Investment House, 2007). Most of the imports of pharmaceutical organizations are

from the European Union particularly that therapeutic classes which can't get from local production (Jordan Kuwait Bank, 2012; Global Investment House, 2007). But in general, The Jordanian pharmaceuticals sector is prospering sector despite competition from many parties such as Saudi Arabia sector. This means the cost factor; it's not the only factor to determine success. There are many factors such as the quality of the products, regulatory approvals, raw materials resources, the capabilities of sales and marketing, building good relations with partners, and compliance with standards. To keep this position pharmaceuticals sector must keep going in good work and continuous improvements to upgrade the capabilities of this sector.

- Value creation is the ultimate goal for the organizations whatever their fields and there are many ways to improve it such as the **management capabilities** are the key in the process of value creation. The process of Value creation is contingent on Good management, Building **strategic relationships**, as well as interactions with others, allow the Jordanian pharmaceutical manufacturing companies to reach to the external resources (tangible & intangible) will lead to increase the value creation, Adopting **value creation activities** such as education, training, knowledge, innovation, building organizational structure, developing customer, organizational and individual relationships is another the key in this process, Increase the efficiency of **Research and development unit (R&D)** by linking this unit more closely to business strategy in addition to depending on external sources will increase the value creation, and Activate the role of **knowledge management unit (KM)** in order to capture the best practices to spread it through the rest of the organization, in addition to linking KM with information technology system (ITS) will lead to value creation.

5.5 Conclusion

The objective of this chapter is to investigate the role of intellectual property assets on value creation: a study of Jordanian pharmaceutical manufacturing companies. Generally speaking, this study discusses that there is no statistically significant role of intellectual property assets on value creation in Jordanian pharmaceutical manufacturing companies and the previous main hypothesis consist of five sub-hypothesizes. this study discusses that There is no statistically significant role of

Chapter 5: Summary, Findings and Suggestions

Patents on Value Creation, There is no statistically significant role of Copyright on Value Creation, There is no statistically significant role of Trademarks on Value Creation, There is no statistically significant role of Industrial designs on Value Creation, and There is no statistically significant role of Geographical indications on Value Creation

The study reported that employees have assured about the role of intellectual property assets on value creation in Jordanian pharmaceutical manufacturing companies and they have positive attitudes toward intellectual property assets, and they are using these assets in the process of value creation.

The study reported that employees in Jordanian pharmaceutical manufacturing companies have assured about the role of the patents on value creation, the employees agree that pharmaceutical manufacturing companies are using patents on value creation, where they are using Patents as the powerful tool for achieving competitive advantages and achieving sustainability. The employees in Jordanian pharmaceutical manufacturing companies also agree that their companies are using Patents strategically because it helps in to strengthen their position and increasing revenues. It is noted that they agree that the process of value creation totally depends on the ability of the organization in dealing with patents and exploit it as much as they can to get unlimited benefits and It is noted that Patents according to their views play as indicators in building Positive image about the management of the organization and These indicators will be as reasons for raising funds, attract business partners and raising the entity market value.

The study shows that employees in Jordanian pharmaceutical manufacturing companies believe that they have not positive attitudes toward the role of copyright on value creation, the employees believe the copyright does not play a very important role on value creation in this industry; because the copyright close to or it only protects the literary works such as newspaper articles, novels, and plays. It also protects computer programs, musical compositions, and movies. It also protects artistic works such as sculptures, paintings, photographs, and drawings. It also protects architecture. All the previous lists do not belong to the works of pharmaceutical manufacturing, and the previous lists are not basic units or are not inputs in the process of the manufacturing the medicines.

According to the results of the study, employees in Jordanian pharmaceutical manufacturing companies believe that they have not positive attitudes toward the role of trademark on value creation. This can be summarized that industrial designs sometimes play a substitute role instead of trademarks; The top management realizes the importance of industrial designs at promoting their business and its effects on the customers demand which called strengthening the brand name; Because the industrial designs have power to make the products so attractive to customers and that of course because of the external appearance for products which will reflect at the directions of customer's and will lead to increase their demands for distinguished and attractive shapes because the external appearance of the products can be the key factor in the decision of the customers at the time of purchasing. So when the industrial designs of products obtain or gain distinctiveness or can work as logo through its use in the market; in this case, the products can be qualified to register a trademark, for example, Apple's iPod and coca cola bottles. The employees in Jordanian pharmaceutical manufacturing companies believe industrial design has a duplex role which means it can be industrial designs and can be trademarked at the same time. They believe that industrial designs have power more than trademarks or it can do the same functions.

The study reported that employees in Jordanian pharmaceutical manufacturing companies have positive attitudes toward industrial designs; because The organization realizes the importance of industrial designs because the external appearance will affect at the directions of customer's and will lead to increase their demands for distinguished shapes. The employees also agree the industrial designs have thrived in recent years, and have become an integral part of business strategy. Their organizations are taking care of it because the industrial design is one of the most valuable assets. They also agree that the sustainability or failure of the goods in the markets at least partially depends on the external look and visual features of shape, and Industrial design considered as one of important asset and the presence of this asset in the organizations is very crucial and important in the process of value creation for the stakeholders.

Employees in Jordanian pharmaceutical manufacturing companies have not positive attitudes toward Geographical indications, but the p-value of geographical indications very close from 10% which may indicate that a considerable number of the

respondents perceive that GEOIND has a significant effect on value creation. Maybe because of the shortage of some considerations such as adequate management practices, quality controls, and marketing capabilities; maybe these considerations are available, but they are not at that higher level of Professionalism where about 50% of markets are controlled by multinational companies.

Generally speaking, We can conclude that intellectual property assets are a very strategic resource for value creation in Jordanian pharmaceutical manufacturing companies, and must be provided with the all required intellectual property assets to face all kind of challenges and demands whether it's local or international provided that using these assets in a wise and appropriate way. Resort to such assets from Jordanian pharmaceutical manufacturing companies reflects the importance of these assets in the process of value creation. Using intellectual property assets in the sixteen Jordanian pharmaceutical manufacturing companies, in particular, reflect the extent of development in this vital sector in addition to tangible assets such as modern equipment, which aims to increase the quality of health services offered to customers, moreover achieving growth rates at the local and international level.

It has been concluded that the development and construction of excellent intellectual property assets in Jordanian pharmaceutical manufacturing companies is directly related to the development and growth of the work of these companies. In knowledge-based economy the existence of these kinds of assets consider as basic requirements for competition and survival in both of markets global and local, it has become a necessity for acquisition these kinds of assets, and without them the organization can't keep going in their success; particularly for Jordanian pharmaceutical manufacturing companies because they are a very active part of the economy and affect many sectors.

5.6 Suggestions

5.6.1 Specific Suggestions

Jordanian pharmaceutical manufacturing companies that have been studied need to focus more on acquisition, as well as developing these assets, practical life has shown that they are essential and vital thing in their success to the top management of these companies, have to create culture inside their employees regarding intellectual property assets, Jordanian pharmaceutical manufacturing companies have to show more interest in intellectual property assets so that will be more suitable for the

objectives of the pharmaceutical companies to get the most from them and to try hard to make them more compatible to their day to day operations in order to make the services of pharmaceutical manufacturing companies easier for their customers, thereby increasing efficiency.

- Copyright in Jordanian pharmaceutical manufacturing companies is not playing a very important role in the process of value creation, or the Copyright has not a positive relationship on value creation. In the light of studying the conceptual framework of intellectual property assets it can be understood why the copyright does not play a very important role on value creation in this industry; because the copyright close to or it only protects the **literary works** such as newspaper articles, novels, and plays. It also protects computer programs, musical compositions, and movies. It also protects **artistic works** such as sculptures, paintings, photographs, and drawings. It also protects architecture. All the previous lists do not belong to the works of pharmaceutical manufacturing, and the previous lists are not basic units or are not inputs in the process of the manufacturing the medicines. But there are no problems if they give more attention to this part to know more about it to try to understand it well to explore it.
- Patents for Jordanian pharmaceutical manufacturing companies are important. Therefore they should create a distinguished and diverse portfolio to deal with practical life and their day to day operations so they can achieve balance in their industry efficiently; Jordanian pharmaceutical manufacturing companies must use the patents strategically because it helps in to strengthen their position and increasing revenues Thereby increasing the process of value creation; And they have to deal with patents as a powerful tool for in achieving competitive advantages and achieving sustainability. And they have to create a culture of benefits of patents between employees to let them focus more to produce more and more inventions to commercialize them.
- Trademarks are also important for this sector; this sector has to skip the previous obstacles mentioned above in the main findings. Jordanian pharmaceutical manufacturing companies have to build loyalty, and confidence in their products, and they have to design distinctive sign, image or reputation so the public can find

them easily to keep sustainability. They should use the trademark strategically because it helps in to strengthen their position and increasing revenues Thereby increasing the value creation process.

- Industrial designs are also very crucial and vital for this sector particularly the industrial designs have thrived in recent years, and have become an integral part of business strategy. Industrial design considered an important asset and the presence of this asset in the organizations is very crucial and important in the process of value creation for the stakeholders. This sector must take care of it because the industrial design is one of the most valuable assets. Jordanian pharmaceutical manufacturing companies should realize the importance of industrial designs because the external appearance will affect the directions of customer's and will lead to an increase in their demands for distinguished shapes. Moreover The sustainability or failure of the goods in the markets at least partially depends on the external look and visual features of shape this why they should hire a very good designers team who can understand the needs of people, and their aim is to enhance value and functions of design as well as create attractive shape to make the design distinctive and has local and universal use.
- Since customers assume that the products which come from specific places carry particular characteristics such as weather, soil, and unique skills of human, which may help in adding value, geographical Indications are also can be very substantial and remarkable if Jordanian pharmaceutical manufacturing companies give more attention to some considerations such as provide adequate management practices, quality controls, and marketing capabilities in order to improve their performance and control to get Professionalism in the previous considerations and try their best to get more control on the markets where about 50% of markets are controlled by multinational companies by making new alliances with local companies.
- Value creation is the ultimate goal for the organizations whatever their fields and there are many ways to improve it such as the **management capabilities** are the key in the process of value creation. The process of Value creation is contingent on Good management, Building **strategic relationships**, as well as interactions with others, allow the Jordanian pharmaceutical manufacturing companies to

reach to the external resources (tangible & intangible) will lead to increase the value creation, Adopting **value creation activities** such as education, training, knowledge, innovation, building organizational structure, developing customer, organizational and individual relationships is another the key in this process, Increase the efficiency **of Research and Development Unit (R&D)** by linking this unit more closely to business strategy in addition to depending on external sources will increase the value creation, and Activate the role of **knowledge management unit (KM)** in order to capture the best practices to spread it through the rest of the organization, in addition to linking KM with information technology system (ITS) will lead to value creation.

5.6.2 General Suggestions

Jordanian pharmaceutical manufacturing companies should pay more attention to the development of their intellectual property assets. Internal policies of this sector should focus on efficient use of intellectual property assets. The top management of Jordanian pharmaceutical manufacturing companies must pay more attention to use intellectual property assets to make them part of their strategies to perform their functions effectively.

Jordanian pharmaceutical manufacturing companies should take into consideration what Intellectual property (IP) contributes to increasing their profits and market value. Pharmaceutical manufacturing companies can thus be more dependence on Intellectual property (IP).

The key goal of use of intellectual property assets must be to get the most from these assets and utilize them as much as possible in the service of this sector since Pharmaceutical organizations are regarded as knowledge-based organizations as well as intensive-capital and research intensive; and they are depending on knowledge and research to achieving their goals and expansions. Intellectual property (IP) has become for this kind of companies as a source of achieving a lot of benefits which are important to them.

Jordanian pharmaceutical manufacturing companies should pay more attention to provide their employees more training programs to get deep knowledge in this field Intellectual property (IP) field so that the employees can get sufficient experience in the uses of Intellectual property (IP) assets.

Government in co-operation with the pharmaceuticals sector should provide more encouragement for using the applications of intellectual property assets in the pharmaceuticals sector, because it has many effects such as accounting effects, and that can be shown on both level: first on the economic unit level and at the national level, for the economic unit will be for intellectual property assets impact and role on the financial statements such as balance sheet and it will show the size of these assets and its impact on market value for these companies .in respect with the national level,it has many of the accounting effects, such as the value-added and national income.

5.7 Directions for Future Researches

The present research study was undertaken to investigate the role of intellectual property assets on value creation: a study of Jordanian pharmaceutical manufacturing companies. The researcher has selected sixteen pharmaceutical manufacturing companies (Table 1.2). Which mean all population has been selected this kind of study called census study.

This study covers only Jordanian pharmaceutical manufacturing companies in Jordan. Researches can be conducted on multinational pharmaceutical companies who are working in this sector inside the Jordanian environment. And it's worth to make a comparative study between Jordanian pharmaceutical manufacturing companies and multinational pharmaceutical companies who are working in Jordanian environment in respect with value creation and try to investigate if there is any statistically significant role of intellectual property assets on value creation in multinational. It's also worth to investigate how to extract value from intellectual property assets in pharmaceutical companies whether it national or multinational.

Moreover, we can examine stakeholder's satisfaction about using intellectual property assets on Jordanian or multinational pharmaceutical manufacturing companies. Research can be conducted on the role of intellectual property assets on value creation in different fields such as Governmental institutions, food industries companies, and Industrial agriculture such as livestock, poultry, fish, and crops. It's also worth, or it's recommended by researchers to investigate only one component of intellectual property assets alone and select compatible industries to that component to make it a deep study for that component of intellectual property assets.

This study found that the components of Intellectual Property Assets contributed to 29% in the process of value creation So that it's highly recommended to find what variables that contribute in the remaining 71%.

5.8 Summary

This chapter is the final chapter which is devoted to summary, findings, and suggestions. It was for drawing logical conclusions based on examination hypothesizes. The suggestions have been made to overcome negative aspects.