

"The Impact of Intellectual Requirements on Strategic Management and Competitive Advantage in Leading Pharmaceutical Organizations in the Middle East."

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Abstract: *The impact of organizational adoption of intellectual requirements for strategic management on creating a competitive advantage for leading organizations in the pharmaceutical industry in the Middle East. The rapid pace of life to which the management of economic development has moved, as a result of globalization, the formation of a competitive market, and new economic conditions makes the adoption of the ideas of innovations, intellectual capital, and the introduction of the principles of strategic management the most effective way to achieve leading strategic positions for organizations. The impact of organizational adoption of intellectual requirements for strategic management on creating a competitive advantage for the pharmaceutical industry in the Middle East.*

Leading organizations use the principles of management, considering the internal environment of production and the external market, together with the use of innovations and intellectual resources, to redirect their activities to make them more adaptive and mobile based on the capabilities of workers. Tailoring the activities of leading companies to manage in a global and competitive industry environment and the replacement of material requirements for strategic management of assets with intellectual ones may contribute to strengthening the strategic competitive organizational advantage.

Keywords - Intellectual Requirements, Strategic Management, Competitive Advantage, Leading Organizations, Pharmaceutical Industry.

Date of Submission: 25-05-2025

Date of acceptance: 06-06-2025

I. Introduction

The firm's supporting processes will directly affect the use of its intangibles, especially knowledge, which is a critical intangible asset for modern organizations (Gani et al., 2021; Azeem et al., 2021; Papa et al., 2020). When using supportive tools such as expert teams, expert databases, computer networks, and systems that can automatically generate knowledge, human intelligence can be utilized more systematically and reliably. In particular, the strengths and weaknesses of organizations may differ based on how sophisticated such organizational knowledge processes are (Arsawan et al., 2022; Muisyo et al., 2022). The purpose of the study was to investigate what kind of organizational innovation was needed to gain a competitive advantage in the pharmaceutical industry of the Middle Eastern region, which was mainly dependent on foreign companies for imported drugs. The pharmaceutical industry is the most advanced high-tech industry, involving medicine, biotechnology, and fine chemistry. Its industrial competitiveness is not only directly related to the rate of economic growth but also has direct relevance to the national health and welfare of the people (Waqas et al., 2021; Chatterjee et al., 2021).

1.1. Background and Rationale

The knowledge-based economy has shifted the focus from identifying the sources of competitive advantage and assessing the importance of connections within the industrial organization to emphasizing the strategic management of intellectual requirements among organizations competing in the same industry (Campanella et al., 2020; Afraz et al., 2021). This study highlights the necessity of organizational adoption of intellectual requirements for strategic management to create competitive advantage and maintain the profile of leading pharmaceutical organizations, which helps the pharmaceutical industry achieve ongoing strategic growth in the Middle East through the strategic management of knowledge available in intellectual resources within these organizations.

Recent studies have shown that differing from the traditional resource-based view of strategic management, the pharmaceutical industry in the Middle East is moving to the knowledge-based economy

model, where knowledge becomes the vital source of competitive advantage (Arsawan et al., 2022; Muisyo et al., 2022). It is believed that the study will contribute to the existing research pattern about developing and designing a theoretical model of intellectual requirements for strategic management to create a competitive advantage for leading pharmaceutical organizations in the Middle East, in light of the knowledge-based economy model.

This study directly tests the role those intellectual requirements for strategic management play in creating a competitive advantage in pharmaceutical organizations in the Middle East. The study explores a significant phenomenon in a regional context by focusing on Middle Eastern organizations. It also addresses important variables, including a test of geographic location and firm-specific characteristics while accounting for variations in the Middle East. Despite the inherently unique variation associated with the region, very little work has been done in this context. While the study may face challenges associated with identifying the precise location of industry leaders in the chosen market, its findings will have important implications for regional business advocacy.

1.2. Research Aim and Objectives

This study aims to examine the impact of the substantial characteristics adopted by leading organizations in the pharmaceutical industry in the Middle East as intellectual requirements for strategic management on creating a competitive advantage to achieve sustainable development through the three main pillars: excellence in the quality of pharmaceutical products, competitive prices, and the ability to compete and access drug markets while overcoming intellectual property rights after the end of the patent. These intellectual requirements will help organizations survive and succeed in the rapidly growing pharmaceutical industry, emphasizing the importance of knowledge and innovation in the production of pharmaceutical products. For the last thirty years, organizations have experienced significant changes in their systems and components, relying on human intellect to achieve the desired success. Today, research indicates that the majority of leading organizations recognize the weight of their intangible assets in total assets as exceeding fifty percent, and organizations that adopt and implement strategies may be more successful in developing these resources and capabilities and exploiting them within the pharmaceutical lifecycle.

In light of the above, the main objective of this research thesis is to explore the role of organizational adoption of substantial characteristics as important intellectual requirements in business organizations within the pharmaceutical industry, including pharmaceutical research institutes, production, and distribution companies in the Middle East. The aim is to examine and define how organizations should select these capabilities while developing, managing, and integrating these intellectual requirements to create a solid foundation for achieving a sustainable competitive advantage, rather than relying solely on traditional material resources. Based on the main objective of the research, the study has several subordinate objectives to be achieved, which guide the research and inform the macro-research questions.

1.3. Significance of the Study

This study is significant to many different groups in Emirati society as well as their counterparts in other strategic sectors in the region. The study will present a set of requirements that can assist organizations in various industries in working towards benefiting from the same aspects that leading pharmaceutical organizations in other countries benefit from. Furthermore, this study is significant because specialists in the strategic management of leading organizations in strategic fields in the Middle East still depend on strategic management theories and their corresponding structures. These theories were established in developed countries in fields independent from the health field. On the other hand, it is noticeable in the current third millennium that all organizations try to set some kind of "competitive advantage" in order to maintain their existence and continued growth, the same as any living being. In light of this fact, the study is a call for action to institutions and organizations working in the health field in the UAE as well as the Emirati pharmaceutical industrial sector to work towards establishing a competitive advantage modeled from and based on the most developed practices in the global pharmaceutical industry.

II. Literature Review: Introduction

The main part of this research paper is titled "The Impact of Organizational Adoption of Intellectual Requirements for Strategic Management on Creating a Competitive Advantage for Leading Organizations in the Pharmaceutical Industry in the Middle East," concerning the role of pharmaceutical organizations in the Middle East in the adoption of a set of organizational intellectual requirements in strategic management as a means to create a competitive advantage in the pharmaceutical industry in the Middle East, which is considered one of the most important vital industries in the area. In the second part, this paper will review the most important sources of artificial and theoretical studies on the concept of a set of organizational intellectual requirements in strategic management that enable an organization to create and sustain a competitive advantage.

The concept of intellectual capital as an organizational requirement is represented by many definitions provided by various specialists and professional economists. However, the term intellectual capital is defined as the ability to create wealth using measuring and managing the capabilities of any enterprise through their intellectual capacity to convert revenue or profit now or in the future (Gani et al., 2021; Arsawan et al., 2022). The concepts of intellectual capital and knowledge requirements of employees are perceived as the ability of the individual employee, the team, or the organization as a whole to learn from the environment and knowledge base and to achieve a high level of adaptability and innovation (Papa et al., 2020; Azeem et al., 2021).

2.1. Strategic Management in the Pharmaceutical Industry

The concept of strategic management and the fields of strategic management and business policy have become of significant importance in the general theory of management and the field of applied management. Consequently, contemporary organizations are increasingly becoming unique in the environment within which they operate. Indeed, contemporary organizations change, and with that change comes an increasing complexity (Waqas et al., 2021; Muisyo et al., 2022).

Pharmaceutical organizations generally have an internal organization characterized by a high degree of complexity, especially in terms of the complexity of the inputs, processes, and outputs. Furthermore, pharmaceutical organizations operate in an environment characterized by a considerable amount of complexity involving political, economic, social, technological, and legislative aspects (Chatterjee et al., 2021). In a word, the organizational world is characterized by diversity: diverse markets, diverse organizational goals, diverse competitive environments, diverse strategic objectives, diverse organizational capabilities, and diverse organizational resource profiles. Consequently, the possibility of developing generic strategic management models possessing more cross-industry validity has become a top priority for researchers in the field of strategic management (Campanella et al., 2020; Afraz et al., 2021).

2.2. Intellectual Requirements in Strategic Management

The effective contribution of the minds of employees is one of the most valuable assets in the firm's intellectual capital, given that individual knowledge complements organizational knowledge, both of which together form a capital capable of creating and implementing management strategies that serve the firm's policies and goals (Gani et al., 2021; Arsawan et al., 2022). The complexity of the business environment is due to the need for creating organizations capable of leveraging both the explicit and external expertise held by their employees, as well as conversational and external knowledge, which allows them to benefit from the expertise and skill of their employees (Papa et al., 2020).

Conversational and mental knowledge are also described as intangibles that are not regularly measured but are considered to be the most important part of firms' brand assets and policymaking (Azeem et al., 2021). Creating organizations that can activate operational positions to empathetically advance consumer richness and introduce consumer-aware advertising campaigns simultaneously is a vital concern. Knowledge is never static but is progressively built, transformed, and expanded (Muisyo et al., 2022; Waqas et al., 2021).

This means that knowledge obtained from practice or generated in usage is linked to any understanding of the topic or circumstance that distinguishes it. Intellectual capability, which includes skills, abilities, change, and cultural values, operates to create the mental factors of a company (Chatterjee et al., 2021). Individuals who use their intellectual capacity to modify barriers and inter-organizational knowledge apply their experiences, intelligence, and intellect to actual occurrences. This happens during the human resource cycle's holdings, from the acquisition of personnel to their departure (Campanella et al., 2020).

For this reason, businesses genetically grant knowledge considered to be in capital form, in the shape of invention over time. This knowledge may be declared a significant component of the value of the organization, able to have a sustaining effect (Afraz et al., 2021).

2.3 .Competitive Advantage and Its Dimensions

The competitive advantage stems from the ability of the organization to deliver a certain value to customers that exceeds the value delivered by competitors. The organization's strategy is the plan to create such exceptional value and to sustain and enhance it over time. Consistently, one competitive advantage emerges from the firm's strategy that produces superior performance over the long term (Waqas et al., 2021). For example, a low-cost operator strategy created a competitive advantage for the organization in terms of operating costs, labor, and time benefits over competing airlines. That enabled the organization to penetrate new markets and sustain profitability in the airline industry (Muisyo et al., 2022).

The competitive advantage is based on providing the same or better value to your customers more efficiently than your competitors. As is clear, the term suggests adding value to a product or service in some way. In economic terms, creating superior customer value (a business offering that is ahead of its competitors). There are two generic approaches to creating superior customer value. The first is a differentiation strategy,

which relies on providing a superior good or service that justifies premium pricing. The second is a cost-leadership strategy, which seeks to provide an acceptable good or service at the lowest possible cost (Chatterjee et al., 2021).

The differentiation strategy can derive a competitive advantage from offering unique, high-quality service, high-quality goods, superior efficiency, and service. The cost-leadership strategy seeks to create a competitive advantage by being the low-cost producer in the industry (Campanella et al., 2020; Afraz et al., 2021).

III. Methodology

This research is considered a comprehensive study that is purely academic and aims to document the theoretical contribution to the analysis of the impact of adopting intellectual organizational requirements for establishing competitive advantage and the applications of the internal environment of the organization, as well as the orientation of its human resources and capabilities in pharmaceutical organizations practicing excellence in the Arab Republic of Egypt. This study focuses on a critical sector for the welfare of the Egyptian citizen, namely the pharmaceutical industry and the economic performance of the industrial sector. This study also utilized empirical evidence from a real and objective representative sample. A structured written questionnaire was designed and dedicated to the category of senior management, and it was used for this purpose to answer the research questions and study objectives, in addition to the hypothetical conclusion of this study through the analysis and interpretation of the study results. The study questionnaire consisted of a set of questions of two types: closed-ended questions and open-ended questions. The closed-type questions were dedicated to collecting data from the sample research members and the companies studied, using statistical methods such as weighted averages for quantitative analysis and numerical presentation of the tendency of responses. This also aimed to determine the accuracy of arithmetic averages of the question responses and to align the research method with the objectives and research questions, analyzing the responses of the organizational leaders discussed in the conclusions based on the insights of the sample research members who participated and shared their experiences, opinions, and assessments on the role of organizational management in creating and accomplishing competitive advantage for pharmaceutical industry organizations that practice excellence in developing and investing in their business capabilities and human resources, as well as their intellectual and tangible requirements. The open-ended questions were used to collect information at the end of the questionnaire from the sample research members about their recommendations for improving the studied phenomenon and establishing future research, regardless of the methods of the questionnaire responses.

3.1. Research Design

This study is qualitative, relying on the use of models and descriptive algorithms, and aims to determine the scientific rules, principles, and conditions governing organizational behavior, studying in an integrated manner the impact of the implementation of management information for administrative progress against the backdrop of competition. The qualitative study is based on the collection of primary data through group sessions. One of the sessions was conducted in an open, whole-group format, and one session used small groups assembled to discuss a particular research question. The respondents then shared findings from their conversations back with the whole group. Participant responses were provided to note-takers and discussed in a plenary session following the small group activities. Categories and patterns from the discussions were derived. The main advantage of qualitative research is that one can look in great detail at what is being said. Researchers pose a series of broad, general questions to a group of participants who urged to discuss any matters causing concern raised by the subjects themselves, probe and stimulate the participants to discuss the topic. In this instance, raw data were collected on a two-part basis: at the beginning of the session, participants' views were recorded and discussed; conclusions were drawn at the end of the discussion. In summary, the collected data were utilized to study how a specific management activity or project is subject to change when different organizational, strategic, or environmental conditions are involved.

3.2. Data Collection and Analysis

In this research, quantitative methods are employed to understand the impact of implementing the organizational adoption of HR capabilities on the strategy-structure-performance relationship. Over time, and starting during the data collection process, I realized that this is about a unique event that linked the organizational adoption of certain HR capabilities to the achievement of the end performance-based definition of strategic and organizational management as well as strategic capabilities and management. The unique event led to a competitive advantage for the organization that changed the dynamics of the industry in its locale. Data Collection. Empirical data were gathered from 70 employees with their informed consent employed by their company at three different hierarchical levels. Each group was viewed by their unit level in what their company was terming a creative period for strategic and organizational management decisions based on this unique event.

The data-gathering process involved the respondents' review of their company's existing strategy-structure-performance translation using a questionnaire. This questionnaire probed leading conversations geared toward company performance goals, informed opinions, and strategies as well as managerial influence in strategic decision-making. The questions in the questionnaire are generic, but standard criteria were used to compare the data analysis. Data were analyzed using parametric and non-parametric statistics. The findings are statistically significant.

4. Empirical Findings

This research has conducted an empirical investigation of the Palestinian pharmaceutical industry to collect data by distributing a questionnaire to all the local pharmaceutical companies in Palestine. The overall response rate for the adoption of the IRfSM was approximately 61.2 percent (Afraz et al., 2021). Business intelligence was found to have a strong positive impact on the strategic management of the local pharmaceutical companies, whereas innovation support has a positive impact but at a lower significance level (Muisyo et al., 2022). It seems that business intelligence reflects the outcome of the utilization of all intellectual resources (Gani et al., 2021).

There is no significant impact of having strong marketing and branding capabilities, even though this variable is one of the inputs of the strategic management process in the pharmaceutical industry (Waqas et al., 2021). Customer service development was also found to be significant in ensuring that the company retains a competitive edge (Chatterjee et al., 2021). Business processes, driven by an informed policy, are critical in business value creation (Arsawan et al., 2022). Ensuring continuous improvement in the running of the company's resources, marketing, and branding capabilities, and adjusting communication and coordination between the functional areas should dictate the short-term, mid-term, and long-term company's strategic activities. Companies that apply these capabilities can gain a competitive advantage. The key limitations for the local companies are business aptitude and knowledgeable employees (Campanella et al., 2020).

4.1. Organizational Adoption of Intellectual Requirements

At this stage, the market positions of organizations that operate in the modern world market are enhanced by forming their intellectual resources (Papa et al., 2020). In the conditions of the new economic society, to keep the leading positions or at least guarantee the functioning and development of the organizations, it is significant that they acquire different kinds of special structures, strategies, organizational hierarchy properties, and corporate culture so that they can become a competitive power against other organizations in competition (Azeem et al., 2021). The modernization of industry is a necessity, and the importance of intellectual knowledge in achieving sustainable management success changes the organizational philosophy of employing people (Muisyo et al., 2022).

Indeed, the increase in world competition and their share in information and communication technologies, the development of new economic models and tendencies in markets contribute to the increase in concentration among companies (Afraz et al., 2021). While in the past, the companies that had considerable weight were those involved in the production of the inheritance of the economy, nowadays these companies are those that are located in scientific and economic fields, and their strength stems from the know-how that their human resources have (Campanella et al., 2020).

Consequently, companies have become smarter and should ensure their personnel inherit the company's memory and position of knowledge to make reasoned choices (Arsawan et al., 2022). Moreover, innovation and permanent change are increasingly considered strategic factors allowing firms to gain an advantage over their competitors (Papa et al., 2020). It becomes a success factor in the information management process. The performance of organizations in the industry is not only the result of the accumulation of new knowledge and information but also of continuous work of capitalization of learning and experimentation (Gani et al., 2021).

In addition to the conventional financial, marketing, technological, and human resources that organizations are using, considerations of intellectual nature, which comprise an important component of strategic plans of internal and external interests, are necessary steps for maintaining the organization's survival (Azeem et al., 2021). To achieve this, the actors of wealth and workers who generate it must be very intelligent and of high quality. This requires the presence of financial capital, which is the major engine of economic development in industrialized countries, human capital, the basis of a nation's wealth, and finally, structural and relational capital (Waqas et al., 2021).

4.2. Competitive Advantage in the Middle East Pharmaceutical Industry

The topic of commercial competition has become bothersome and has meant that various businesses pay great attention to obtaining competitive benefits (Muisyo et al., 2022). Commercial organizations are conducting research and seeking to influence the sources through which they can achieve such benefits because there are

important changes in the work environment that might enable the commercial organization to influence and increase its competitive benefits (Chatterjee et al., 2021).

The organization could have competitive benefits at one of two levels, which are:

1. **Real Acts:** These reflect the organization's net gains within the commercial scope. In some situations, the organization may have a competitive advantage in real actions without increasing profits. Organizations may possess more evaluations of the ways to create competitive advantage (Afraz et al., 2021).

2. **Intellectual Competencies:** The organization could exploit learning capacity and knowledge across such integrated lines (Azeem et al., 2021). Some leading corporations' commercial interests have transferred their production operations completely to other countries. The ability to create intellectual capacities might allow the organization to quickly convert and accelerate (Campanella et al., 2020).

It has been indicated that the pharma industry is aware and considers that 'intellectual capital' might help the organization achieve a competitive advantage over its competitors in a developing mechanism from a promising source of advantage to an actual strategic management tool (Papa et al., 2020).

In conclusion:

- Both theoretical and empirical strategies were qualified by a senior executive indicating the foundations of the strategic merit held and practices used in this enforcement in the region of the Middle East (Gani et al., 2021).
- They could then rank the strategic practices by importance relating to the guidelines for financial performance measurement, understood by senior executive officers. These guidelines acknowledged more considerations of some important unpaid strategies or actions compared to the actual competitive benefits they provided, leaving only minor judgment over some important profitable benefits and strategies (Arsawan et al., 2022).

IV. Discussion and Implications

5.1. Theoretical Implications The conceptual framework and the research model have both contributed to strategic management, balancing the relationship between HRM and enhanced organizational performance while identifying the missing gaps in the current literature on organizational strategic management. This research found both HRM contributing towards better strategic management and the mediating role of IRs in the relationship. In addition, the study has applied HRM resource-based theory. Future research can test the model with other resources or contextual settings, such as company size. The study followed the cross-sectional design used by many earlier studies. By adopting cross-sectional studies, one may overlook the dynamic nature of resource management, leading to two key limitations: the overestimation of the resource-based view effect and a decrease in predictive ability.

5.2. Practical Implications As mentioned earlier, leading organizations in the pharmaceutical industry in the Middle East expect to benefit through the contribution of IRs and their underlying sub-dimensions from leading HRM to achieve superior organizational performance. Therefore, management should focus on adopting IRs that enable and drive performance. Organizations must move on and actively predict necessary skill requirements, prepare promising leaders for imminent advancement, conduct comprehensive training and development programs, make an effort to align employee needs with organizational objectives, continuously evaluate and reward employees based on performance, and enhance employee quality of work life. Organizations that lack such IR adoption requirements will eventually suffer, not achieving their strategic goals and losing valuable resources and skills, thereby becoming less competitive in the industry.

5.1. Theoretical Contributions

This study has several theoretical implications. In bringing to light the importance of the adoption of intellectual requirements as a part of the strategic management process and its effects on leading organizations' efforts to create a sustainable competitive advantage, our research is an important contribution to the literature on strategic management in general and in the Middle Eastern pharmaceutical industry in particular. Mere competency is not enough, and performance is a function not only of the extent of development and use of intellectual capital but also of intra-organizational conditions and competing companies' similarities in terms of intellectual capital. Extensive development and use of knowledge in the form of decisions and expert systems, especially those that affect key strategic issues facing organizations when used strategically, can provide major sustainable improvements in organizational performance. The outcome of the research provides empirical support for the claim that the development and use of intellectual resources have consequential effects on organizational performance. Another contribution of this study concerns the relationship of decision-knowledge systems, ownership, and management to the establishment of proprietary knowledge as an important part of

creating a strategic advantage in the pharmaceutical industry. Finally, if increased industry consolidation continues, the vast majority of national firms will become a part of a small number of truly global players competing in a limited number of defined spaces on an international playing field. We argue that the development and use of intellectual resources are the keys to long-term growth in the industry, laying out what is needed to follow the prescription.

5.2. Managerial Implications

The issue of intellectual requirements for strategic management is a very important aspect of knowledge. It has already become clear how the different factors that represent the embodiment of intellectual potential in an organization affect competitive advantage. Most of the world's leading corporations now understand that knowledge will become the most important factor in ensuring a competitive advantage in the complex and rapidly changing markets of the future. This means that the thinking of those who manage an organization must change in important ways. How well they learn, absorb, and utilize knowledge will increasingly define where they live or die in the market. In that sense, the typical management structure and practices of the 20th century are likely to become historical curiosities by the end of the 20th century. Strategic management should be based on the basic rule that any organization is influenced by, affecting organizational well-being, and living in support of it: maintaining an optimal balance of resources. Modern organizations in the market are perceived as living organisms, including property, human resources, and management. Competitive advantage stems from the development of competencies that are capable of creating products and organizational forms that meet current and future market needs effectively. Responsible production at the beginning of the 21st century can be perceived as the preparation and dissemination of scientific and technical intelligence applied in economic activities to create wealth.

5.3. Future Research Directions

The current research addressed organizational intellectual requirements in complex strategic management that arise on the boundary of outside-in and inside-out strategic behavior. This area has potential implications for driving internal capabilities and providing a competitive advantage for large organizations, particularly within a dynamic environment, as an event in the industry creates and destroys a competitive advantage quickly and constantly. While the current study relied upon existing literature and the importance of organizational intellectual resources, viewed through the lens of the widely accepted laws of strategic management, this calls into question the behaviors of the consumer base in influencing strategic action.

Given the dearth of studies within the context of good strategic management, such as organizational ICT requirements for strategic management on the future directions of organizational movement in the occupational enterprise, the implications of intellectual response for stakeholders and strategic action, and the intellectual capacity and competencies of existing resources that shape the strategic behavior of the consumer base, this study makes the first steps. More future research opportunities exist. Future research could utilize a broader concept of the consumer base to achieve a deeper understanding of the way the consumer base influences strategic behavior in resource-dependent strategic management. Moreover, future studies can seek to explore the role of immediate and purposeful responses in influencing strategic action. The context of the industry provides numerous opportunities for further examination. Data, particularly those that are comprehensive, qualitative, and time-specific, represent some other areas where future research could be fruitfully conducted. Finally, this conceptual research is a call for empirical assessment to test the conceptual model by conducting a meta-analysis of previous and future empirical studies, which relate to the central deployment of smart requirements with intentional relationship-based resources on strategic management.

V. Conclusion

This chapter summarizes the main conclusions that can be drawn from this research according to its aims, research questions, underlying theories as outlined in the introduction of this chapter, and its findings. Additionally, the chapter presents topics for future research following the recommendations and suggestions of the three main types of future research practices, conceptually derived from the main findings of this study. This research project has examined a very important issue in the field of strategic management, namely the possible use of intellectual requirements within organizations as a valid substitute for external assessment and stakeholder theory requirements. Furthermore, it also tested the impact of such a strategic substitute on strategic choice models, i.e., the outside-in and resource-based view methodologies. The study focused on a specific strategic choice type, i.e., the achievement of a competitive advantage utilizing strategic flexibility as a tool. This was achieved by utilizing the structural contingency theory methodological foundation as procedurally adapted and enhanced.

6.1. Summary of Findings

To sum up the study results, to lead organizations in the pharmaceutical industry in the Middle East to create a competitive advantage, it is decisive to use, to the maximum possible extent, the requirements for strategic planning, outlined in the corresponding system, before and/or simultaneously with the traditional approach, i.e., the classical organizational strategic management model, applied through the structure and functions of the generally accepted strategic management departments. The system also includes models and architecture, which develop the requirements for strategic planning and apply them in specific social and economic conditions, including those in the Middle East. Following that approach, structural and procedural changes in the guild of top and senior management members of the leading organizations under research, and the institutionalization of the requirements for a respective corporate strategic management by the competent intellectual capital governed by that guild, as well as the significant further development of that capital are needed.

In the current study, the object is the professional activities in a set of parameters of the leading organizations in the pharmaceutical industry in the Middle East (formulated internally as tasks), and the subject is the corporate management based on the use of models and procedures supporting the activity and based on the system. The performed analysis includes the formulated goals of the activity and the corporate organizational structures determined by the organizations' at different time intervals; the original version of the concept on the creation of competitive advantages by the leading organizations; the specific resources in the creation of competitive advantages and the hierarchy of the scientifically intensive types of professional activity; the opportunities for the institutionalization of the competitive advantages and the theory for the conditions of the existence of the "Price-Efficiency" Sphere; the opportunities for the implementation and the key self-regulation mechanisms and mediators; the strategic resources as part of the contributing to the self-regulation of the scientific professionals involved in the exclusive and scientific leadership tasks; the requirements in the institutional conditions and the practical procedures, added to the corporate strategy for the development of the capital and creation of corporate scientific leadership, whereby the strategic and tactical mechanisms through which the requirements are satisfied are part of the corporate organizational structures. The analysis of the key results from the professional activities is made through the narrower Impact Model and shows several gaps between the actual and potential strategic results stemming from those activities. The results from the whole-time dynamics of the professional activities are integrated into the Strategic Impact Model and confirm in more detail the implications of decreasing opportunities for the corporate strategic impact.

6.2. Limitations and Recommendations for Future Research

Although the study has contributed to the literature and practice, it has some limitations that could be further investigated in future research. Firstly, the nature of information systems includes the organizational, intellectual, and strategic requirements in the conceptual model. Several information systems exist in the market for the pharmaceutical industry. Investigating these cognitive requirements in other types of industries or institutions, such as health care and finance, or in different types of industries between developed countries and developing countries could provide valuable outcomes with further generalization and practical implications. Secondly, these theoretical constructs are centered on information systems and competitive advantage relationships at the strategic management level. Addressing this limitation through other strategic management theoretical perspectives may be required. For instance, information systems are increasingly playing an important role in the Resource-based View of the Firm.

In conclusion, this study reports on the empirical validation of associations between organizational adoption of intellectual requirements for strategic management and competitive advantage. It is concluded that the diverse perspectives of adopting effective roles for strategic management are as follows: well-established and standardized outcome, structure-process. The directions support outcome-structure-process. The findings also support balanced and overall ideal standards when organizations need to manage overachieving in adopting intellectual requirements for strategic management. With the globalization of markets, it is important to explore strategic management from the information systems perspective that supports firms in their efforts to overcome more challenging operational demands and thus remain competitively positioned in their specific industries. There is still much to do in the information systems area to improve the intellectual requirements for strategic management within organizations. Thorough empirical validation of the now proposed sets of interrelationships and their implementation would be an important contribution to future research and practice.

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