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Identifying Obstacles to Creating Knowledge Enterprises in Iran From the Experts' Point of View

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Abstract

Purpose: The objective of this study is to identify the challenges hindering the formation of Knowledge Enterprises.

Methodology: This research follows a pragmatic approach and combines library research techniques with field methodologies to collect data. It utilizes a descriptive-comparative method, including a Delphi survey. The study involves professors specializing in knowledge and information science from Tehran universities, as well as senior experts in knowledge-based businesses. A purposive sampling technique was used to select 40 participants. Data analysis was conducted using descriptive statistical measures (mean, percentage) and SPSS 25 software.

Findings: The study found that obstacles to establishing Knowledge Enterprises include both internal and external factors. Internal hurdles consist of managerial constraints, operational and structural limitations, and educational barriers. External challenges include environmental, economic, financial, cultural, legal, and administrative constraints.

Conclusion: Organizations and knowledge-based enterprises can address internal obstacles such as managerial constraints, operational and structural limitations, as well as external challenges like environmental, economic, financial, cultural, legal, and administrative barriers. This approach can create a supportive environment for the development of knowledge-based businesses and products.

Value: This research offers valuable insights for policymakers in Iran by identifying barriers to establishing Knowledge Enterprises. This information can help in developing strategies to overcome obstacles and promote the production of knowledge-based products.

Key Words: *Knowledge, Business Challenges, Knowledge-Based Institutions, Iran.*

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Extended Abstract

Introduction: The knowledge-based economy is widely recognized as the driving force behind the development and progress of nations. This kind of economy relies on knowledge and innovation, providing countries with significant competitive advantages. Recently, there has been a growing focus on developing knowledge-based businesses in Iran as a strategic approach to achieving a resilient economy and long-term goals. Knowledge-based businesses and companies are key players in the knowledge-based economy, with many successful companies globally working towards establishing such enterprises to contribute to the formation of a knowledge-based economy. This type of economy emphasizes the importance of knowledge production, distribution, and utilization in driving growth, wealth creation, and employment across all sectors. Knowledge-based companies aim to convert sustainable knowledge into wealth by developing businesses rooted in research and development of advanced and emerging technologies (Ansari & Haghshenas-Gorgabi, 2016). In today's world, knowledge-based businesses play a crucial role in economic growth and societal advancement by leading development and innovation through leveraging knowledge, technology, and innovation to create value-added products for customers, society, and organizations. Universities serve as hubs for knowledge production, research, and learning, providing space for the development of knowledge-based businesses. Collaborating with universities in research and development allows knowledge-based businesses to access new knowledge and research, enhancing their products. Information science and knowledge experts, specializing in knowledge-related activities, offer a unique perspective on knowledge-based businesses. Knowledge management within these businesses can improve communication processes and facilitate knowledge sharing among team members. Access to accurate and comprehensive data is crucial for producing high-quality products, and information science and knowledge experts can assist in organizing and managing knowledge effectively. With the global emphasis on transitioning economies towards knowledge-based models, Iran has taken steps towards becoming a knowledge-based and innovation-driven economy, supporting the growth of knowledge-based businesses and overcoming related obstacles and challenges. Understanding the obstacles faced by knowledge-based businesses in Iran is essential for proposing solutions and designing effective strategies to promote and support their development.

Purpose: Knowledge-based businesses are critical components in driving economic development, contributing to economic growth, job creation, and increased competitiveness in global markets through innovation and advanced technologies. Research and development in the realm of knowledge-based companies can spur technological advancements and innovations, ultimately enhancing societal quality of life. Therefore, it is crucial to investigate the barriers to establishing knowledge-based businesses and determine their impact. This research aims to identify and rank these barriers from the perspectives of information science experts, knowledge management professionals, and senior business experts in the field of knowledge-based businesses. By recognizing and addressing these barriers, steps can be taken to remove obstacles and facilitate the practical application of knowledge.



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Methodology: The current research adopts an applied approach with a descriptive-combined methodology, utilizing the Delphi method. Data collection was carried out using library documentary and field methods. Initially, a mixed Delphi technique (classic Delphi) was used to identify obstacles to establishing knowledge-based businesses. The identified obstacles were then analyzed using descriptive statistics. The research population included professors in information science and knowledge management at Tehran universities, as well as senior experts in knowledge-based businesses. A total of 40 individuals were purposefully selected as a sample. A researcher-made questionnaire was used as the data collection tool. The validity, accuracy, and reliability of the questionnaire were evaluated using four criteria: validity, reliability, confirmability, and transferability. The questionnaire, designed on a 5-point Likert scale, encompassed seven indices and 104 questions. Data analysis was conducted using descriptive statistical index (mean, percentage) and SPSS 25 software.

Findings: To identify obstacles to establishing knowledge-based businesses, published scientific texts (articles, theses) in the field were collected and reviewed. The identified obstacles were categorized into internal and external factors. Internal factors include managerial constraints, executive constraints, structural constraints, and educational constraints. External factors consist of environmental constraints, economic and financial constraints, cultural constraints, and legal and administrative constraints. The Delphi panel provided their opinions on the importance of each item and whether to retain or remove items based on averages from the first and second rounds of Delphi. The identified obstacles from the experts' perspective are presented in Table 1.



Table 1. Identified Barriers in the Field of Knowledge-based Business from Experts' Perspectives

Categories	Subcategories
Internal Factors	
Management Constraints	Investor distrust in plan execution, high startup business risk, lack of investor support for backing young and novice entrepreneurs, inadequate understanding of branding and brand building, absence of centralized solid management for assessing project feasibility and economic calculations for each idea, absence of a centralized budget and cost control entity, lack of strategic thinking among managers, weak marketing, unfamiliarity with the business environment, disbelief in utilizing external management consultancy, unaccountability of senior managers, vague market targeting and suitable customer delineation.
Operational and Structural Constraints	Failure to establish and control necessary standards for input quality, administrative system weaknesses and prevalence of certain irregularities, entry of non-specialists into some knowledge-based business domains, absence of suitable location for business establishment, traditional methods, and equipment usage, low quality of required inputs, lack of effective communication with suppliers and distribution networks, lack of awareness about support services, absence of capable human resources in the job market or difficulty in attracting them, lack of product innovation capability, absence of rich resources, absence of quality raw materials, standardization failure in production and activities, underutilization of advanced technologies, capital and labor shortages, lack of skilled and capable human resources, non-alignment of product features with market expectations, lack of fairness, inadequate ICT infrastructure.



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Categories	Subcategories
Educational Constraints	Failure to consult with experts and entrepreneurs in the development of knowledge-based businesses, insufficient and outdated market and industry information, constraints related to the country's formal education system, absence of startup and business management training, absence of experienced and influential instructors in entrepreneurship courses, inadequacy of existing entrepreneurship-related training, lack of focus on research and development.
External Factors	
Environmental Constraints	Low relative prices of products compared to total costs, international sanctions against the country, market uncertainty and unpredictability, lack of guaranteed purchase of products, failure to identify competitors' activities, market policy fluctuations, weak product distribution network at regional and national levels, market monopolization by competitors hindering entry of new entrepreneurs, fraud by other companies, difficulty in accessing research institutions and laboratories to meet research needs, limited exemplary businesses and standardization, insufficient demand for knowledge-based businesses' products and productions, incapability in market entry and survival, lack of industry-university relationship, distrust in products of knowledge-based companies, political-economic instability, lack of flexibility and competitiveness in the industry, lack of professional communication among producers and global competitors, government-dependent economy, lack of support for domestic products, changes in customer needs and demands.
Economic and Financial Constraints	Rising inflation, increasing prices of raw materials and necessary equipment, lack of financial assistance, provision of loans with high interest rates, strict banking requirements (related to obtaining valid guarantors, collateral, promissory notes, etc.), difficulty in securing liquidity, capital, and a limited number of lending centers for some knowledge-based businesses, insufficient amount of loans and banking facilities considering the activities and needs of knowledge-based companies, lack of initial capital for starting knowledge-based businesses, inappropriate financial flows and currency exchange rate fluctuations, lack of substantial profits, insufficient financial support for companies, lengthy process of return on investment for company products.
Cultural Constraints	Increasing market inclination towards imported and foreign products, dominance of a culture of brokerage and intermediation, stinginess and jealousy of neighbors and their lack of support for young entrepreneurs, weak teamwork, lack of risk-taking culture, aversion to work, administrative discrimination (favoritism in providing facilities and licenses to specific individuals), subjective attitudes of officials and experts of relevant institutions, lack of proper knowledge of management roles and responsibilities, lack of correct understanding of required management capabilities, lack of long-term vision and attention to the time-consuming nature of management development, disbelief in knowledge and information sharing.

Categories	Subcategories
Legal and Administrative Constraints	Long and exhausting administrative procedures for registering and launching a knowledge-based business, non-official and legal registration of many activities of knowledge-based businesses to control and supervise their work, lack of government support for entrepreneurs, problems and obstacles created by employees of government institutions in approving plans of knowledge-based companies, complex laws and evaluation methods for proposed plans to receive facilities, the necessity of providing collateral to obtain bank facilities, existence of administrative corruption, absence of appropriate laws to attract foreign investors, obtaining necessary permits and problems related to relevant governmental organizations and administrations, short repayment period for bank facilities, lack of proper laws for joint investment, frequent changes in laws and regulations governing companies, absence of supportive policies and incentives, delayed payment of company dues, limited knowledge of policymakers and relevant officials about existing realities, weakness in intellectual property rights, inappropriate government supportive policies.

The findings suggest that internal barriers, particularly managerial constraints, lack of investor support for young entrepreneurs, and operational and structural constraints such as limited communication and internet restrictions, are significant inhibitory factors. Educational constraints are mainly attributed to limitations in the formal education system. External barriers include environmental, economic and financial, cultural, and legal and administrative constraints. Ecological constraints highlight the absence of political-economic stability. Economic and financial constraints are marked by inappropriate financial flows and exchange rate fluctuations. Cultural constraints point to a culture of brokerage and intermediation dominance. Legal and administrative constraints indicate the lack of adequate laws to attract foreign investors as a major inhibitory factor.

Conclusion: Businesses that are knowledge-based can be considered one of the key drivers for a country's success in both production and service provision, and as such, they deserve significant attention. In the realm of knowledge-based businesses, various obstacles can lead to challenges and gaps in the process of establishing such businesses in Iran. The findings of this study indicate that there are both internal and external obstacles that can serve as barriers in this process. Internal factors such as managerial constraints, operational limitations, structural challenges, and educational constraints were identified as key hurdles. Among managerial constraints, the lack of support from investors for young entrepreneurs and newcomers stands out as a major hindrance. Without the necessary support, the enthusiasm and motivation of these individuals can diminish. Operational and structural limitations, including issues with communication, censorship, internet restrictions, and digital marketing tools, also pose significant challenges. The lack of appropriate infrastructure and supportive laws further complicate the establishment of knowledge-based businesses. Educational constraints, such as limitations in the formal education system, also hinder the development of these businesses. It is crucial to involve specialized individuals and entrepreneurial consultants in the educational domain to address these limitations.

In addition to internal obstacles, external factors also play a role in the challenges faced in establishing knowledge-based businesses. Environmental constraints, economic and financial limitations, cultural barriers, and legal and administrative hurdles all pose significant challenges. Political-economic instability and lack of financial access can hinder the business environment, while cultural factors like a



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culture of brokerage and envy can lead to weak teamwork and subjective attitudes. Legal and administrative constraints, such as lengthy administrative procedures and lack of appropriate laws for foreign investors, also present obstacles.

To address these challenges and pave the way for successful knowledge-based businesses, organizations and companies must pay attention to and address the identified obstacles within their operations. Failure to address these obstacles could lead to failure in the competitive field. Practical recommendations include facilitating permits for knowledge-based businesses, reducing taxes for such businesses, supporting intellectual property, promoting entrepreneurial culture in education, developing information technology infrastructure, and fostering interaction between universities, industry, and government.

Value: This research can provide valuable insights for policymakers in the field, enabling them to identify and address obstacles to creating knowledge enterprises in Iran. By taking steps to remove these obstacles, the application of knowledge and the production of knowledge-based products can be facilitated.

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