



Developing an Intellectual Capital Model in the Computer Industry Based on Strategies and Outcomes Using the Grounded Theory Method

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Received: 2024-06-06 **Reviewed:** 2024-06-16 **Revised:** 2024-08-11 **Accepted:** 2024-08-23 **Published:** 2024-09-10

Abstract

This research aimed to develop an intellectual capital model in the computer industry based on strategies and outcomes using the grounded theory method. The data collection tool was a semi-structured interview conducted with experts. To this end, using a purposive sampling approach (snowball sampling), interviews were conducted with 15 academic experts or senior managers of companies active in the computer industry listed on the Tehran Stock Exchange. The research data were analyzed using the coding method and Strauss and Corbin's approach, extracting the main categories and concepts. The results indicate that, based on the study's paradigmatic model, the causal factors of intellectual capital include capital structure, investment, production costs, quality of goods and services, competitive ability, innovation and creativity, professional ethics, commercialization of ideas, and the exchange of knowledge and experience. Contextual factors of intellectual capital include advanced technology, buyer behavior, and the competitive environment. Intervening factors of intellectual capital include market efficiency, general government policies, and the country's developmental status. Intellectual capital strategies encompass company management policies, risk management, and supply chain management. Moreover, the outcomes of intellectual capital include production capability, sales capability, export capability, and profitability.

Keywords: *Strategies, Outcomes, Intellectual Capital, Computer Industry.*

How to cite this article:

Baba Ahmadi R, Chirani E, Mirbargkar M. (2024). Developing an Intellectual Capital Model in the Computer Industry Based on Strategies and Outcomes Using the Grounded Theory Method. *Management Strategies and Engineering Sciences*, 6(4), 134-143.



1. Introduction

Economic development in recent decades has been highly dependent on intangible assets. With the emergence of the knowledge-based economy, the foundations of creating a competitive advantage based on tangible assets have gradually diminished, and intangible capital has played a more decisive role in organizational performance. In fact, the wealth of the modern economy is no longer reliant on physical assets but rather on intangible assets [1]. Among these intangible assets, intellectual capital holds significant importance. Currently, intellectual capital has become the most critical factor for business success and the primary driver of maintaining a competitive advantage and creating company value. Accordingly, the potential to create competitive advantage and long-term value depends more on the efficient management of intellectual capital than on tangible assets. Hence, it is often said that companies in the new economy essentially invest not in fixed assets but in intangible assets, as these are the main value-creating factors. This shift has drawn researchers' attention to intellectual capital, even though it remains an emerging research field [2]. Intellectual capital can serve as an operational resource that a company can utilize for value creation and innovation, allowing companies to sustain themselves in a competitive environment and enhance their financial performance [3].

With the advent of the knowledge economy, knowledge has gained precedence over other production factors like land, capital, machinery, etc. In this economy, knowledge is considered the most crucial production factor and the key competitive advantage for organizations. One of the characteristics of knowledge is its intangibility, meaning it is non-physical and difficult to measure or value. While organizations in the past could fully measure their production factors using accounting methods, these methods have become inefficient today. Knowledge is regarded as one of the most significant components of intangible assets. In the past, most organizational assets were tangible, but today, a substantial portion of these assets are intangible [4]. In this knowledge-based economy, an organization's success depends on its ability to manage these intangible assets. To manage them, they must first be identified and measured, and only then can they be effectively managed [5]. Today, value creation and innovation have become areas of special interest for managers, investors, economic institutions, and governments. Many companies invest in employee training, research and development, customer relationships,

administrative and computer systems, and more. These investments, known as intellectual capital, are growing and have even surpassed financial and physical investments in some countries. This shift in investment structure is attributed to the emergence of the new knowledge-based economy, where intellectual capital is considered the primary source of value creation [6].

The traditional accounting model focuses on financial and physical assets, often ignoring most intellectual capital assets. The lack of accounting recognition of intellectual capital and its role in the value creation process means that financial statements fail to reflect many of the values relevant to stakeholders and other users [7, 8]. Intellectual capital resources enable contemporary organizations to sustain their strategies in a highly competitive market, even while facing diminishing levels of scarce physical resources. Nevertheless, the concept of intellectual capital is fraught with various overlooked and complex issues related to its conceptualization, measurement, and modeling of its impact on corporate performance, serving as a foundation for empirical research. The challenge of assessing the effects of intellectual capital on sustainable financial performance remains a research issue that requires deeper investigation, as existing knowledge in this area is limited [9].

According to Pulic (1998), an increase in intellectual capital value-added indicates improved efficiency of company resources, particularly the knowledge of employees. The value-added intellectual capital (VAIC) model has several notable strengths. First, it allows a focus on resource efficiency in value creation. Second, it is straightforward to calculate, as it uses accounting data from financial reports, all publicly available. Third, it is based on objective data—since value-added derives from market-based values, financial figures can be extracted from audited financial statements. Fourth, managers can calculate VAIC for the entire company, each business unit, and even for specific processes and activities. Fifth, VAIC helps managers assess company performance without relying on industry standards [10, 11].

The emphasis on intellectual capital highlights a fundamental difference between company operations in the old economy and the new economy. In the old economy, value originated from physical assets, whereas in the new economy, value is created through the use of knowledge and intellectual capital. One major problem with traditional accounting systems is their inadequacy in measuring and reporting information related to intangible assets (such as knowledge) and a company's hidden values. This

inadequacy has created a substantial gap between a company's book value and market value. The increasing disparity between market and book values in many companies has prompted an investigation into lost (hidden) values unreflected in financial statements. The limitations of financial statements in explaining company value stem from their focus on physical asset-based economic production rather than intellectual capital creation [7, 8]. According to various researchers, intellectual capital comprises hidden values that obscure financial statements and are instrumental in achieving competitive advantages. Additionally, the limitations of financial statements in accurately explaining company value highlight the reality that, nowadays, economic value sources stem from intellectual capital, not physical goods production [12]. Intellectual capital is an emerging topic in corporate accounting, still in its developmental phase, and lacks a comprehensive definition. The main issue is the absence of a specific method to quantify intellectual capital structures in numerical terms to examine the difference between a company's book and market values [8].

The literature review highlights the pivotal role of intellectual capital in enhancing organizational performance. Truong and Nguyen (2023) examined how intellectual capital influences business performance through knowledge absorption and innovation, mediated by environmental adaptation, using data from 206 managers in Vietnam [13]. Marzo and Bonnini (2023) revealed the nonlinear relationship between intellectual capital's value-added and corporate financial performance in Italian firms, emphasizing the need for revised evaluation methods [8]. Ozgun et al. (2022) explored how social capital impacts organizational performance in Turkish public hospitals, mediated by innovative activities and intellectual capital, emphasizing the role of trust and collaboration [14]. Malazadeh Jabraghi et al. (2022) conducted a meta-analysis on measuring intellectual capital, identifying 53 effective variables across organizational focus, accounting literature, and research methods, using data from 1987 to 2020 [15]. Kefili et al. (2022) analyzed intellectual capital's impact on financial performance in 26 pharmaceutical companies in Tehran, finding human capital efficiency as the key driver [16]. Finally, Eshghi and Eshghi (2020) confirmed a significant positive relationship between intellectual capital components—human, structural, and relational—and financial performance using correlation and regression analysis in their organizational study [17].

The intellectual capital model in the computer industry serves as a critical tool for creating and maintaining competitive advantage by analyzing strategies and outcomes associated with intangible assets. Intellectual capital comprises three main components: human capital, structural capital, and relational capital. In this industry, human capital refers to the knowledge, skills, and creativity of employees, playing a vital role in innovation and the development of new products. Structural capital includes organizational processes, systems, and culture that facilitate operational efficiency and effectiveness. Relational capital pertains to communication networks and relationships with customers and business partners, potentially enhancing customer loyalty and financial performance. The intellectual capital model emphasizes strategies focused on identifying and strengthening these three types of capital. For instance, companies in the computer industry can enhance human capital through professional training and development programs. Additionally, implementing innovative processes and improving organizational structures can strengthen structural capital. Finally, establishing robust customer relationships and using advanced technologies for better interaction can strengthen relational capital. The outcomes of this model include increased innovation, improved financial performance, greater customer satisfaction, and ultimately, a positive brand image in the market. Overall, intellectual capital is recognized as a crucial resource for sustainable growth and development in the computer industry, and focusing on it can contribute to the long-term success of organizations.

2. Methodology

The present study is a developmental-applied research from the perspective of its objective and a descriptive survey research in terms of data collection method. Descriptive research involves collecting information to answer questions related to the current status of the subject under study. Descriptive research describes and interprets what exists and pays attention to current conditions or relationships, common beliefs, ongoing processes, apparent effects, or developing trends. Survey research extends beyond a specific data collection technique, utilizing methods such as interviews, questionnaires, observations, content analysis, and more, employing field methods to measure criteria.

Furthermore, given the nature of the research, it is qualitative and employs the grounded theory as the research method. Grounded theory is a qualitative research approach

in which a theory is developed from a set of data, explaining a process, action, or interaction at a broad level. This approach does not start with a preexisting theory to prove but begins with a study phase, allowing relevant themes to emerge. Grounded theory research, using a systematic set of data collection methods, facilitates the inductive design of a theory from the data. Throughout grounded theory research, the researcher interprets the data and continuously refines or reprocesses emerging theoretical analyses. The primary goal of grounded theory research is to develop models that represent the underlying social processes within the data. Additionally, given the nature of the data and analysis methods, this study is qualitative and deals with qualitative data.

The qualitative method used here is the Strauss and Corbin grounded theory approach. This approach allows researchers to derive theories from empirical data through a data-driven coding process, comprising three main stages: open coding, axial coding, and selective coding. During open coding, the researcher carefully examines the data without preconceived notions to identify initial concepts and categories. Axial coding establishes connections between these concepts to form the structure of the theory. Finally, in selective coding, the researcher identifies and develops core concepts that serve as the theoretical framework. This approach enables researchers to construct a comprehensive and relevant theory from the collected data. Moreover, grounded theory emphasizes continuous interaction between data and theory, encouraging researchers to collect and analyze data throughout the research process. This method is especially valuable in social and human sciences, helping to gain a deeper understanding of complex phenomena.

Due to the vast population size, it is not feasible to identify and interact with every individual in the population. Therefore, selecting a statistical sample to represent the population is inevitable. Since data collection and analysis in grounded theory occur simultaneously, data were gathered through semi-structured interviews using an exploratory approach, aligned with the research objective. Sampling continues until theoretical saturation is reached. It is commonly believed that theoretical saturation occurs when

no new categories emerge from the data, but in reality, it goes beyond this. The aim is not merely to identify a set of categories but to develop classifications based on their properties and dimensions, including their variations and possible relationships with other concepts.

For this research, experts with relevant education and experience were selected using the snowball sampling method. At the end of each interview, participants were asked to introduce other knowledgeable and informed individuals relevant to the study. If additional insights or expert opinions were needed to complete the model or generate the theory, interviewees were asked to suggest suitable individuals with relevant experience. To enrich the research, efforts were made to interview individuals who had personally experienced the research subject and had significant knowledge and expertise. According to the grounded theory approach by Strauss and Corbin (1990), an appropriate sample size ranges from 10 to 25 participants, with the final number depending on achieving theoretical saturation, meaning data collection continues until no new information emerges. The sample in this study consisted of 15 academic experts and senior managers from computer industry companies listed on the Tehran Stock Exchange.

3. Findings

Based on the interviews conducted with experts and specialists, the data were analyzed through content analysis phrase by phrase, line by line, and conceptually. Subsequently, concepts were developed, categorized, and similarities and commonalities among open codes, concepts, and categories were determined. In this section, codes and concepts were classified and identified, leading to the extraction of main and subcategories and concepts.

Causal Conditions: These refer to events or occurrences that lead to the emergence or development of a phenomenon. The phenomenon is defined as the main idea, event, or occurrence, around which a set of reactions or actions are organized to manage or address it, or a set of actions related to it.

Table 1. Open Codes and Concepts for Causal Conditions

Axial Code (Category)	Concept (Open Codes)
Capital Structure	Interest rates on borrowed funds, expected return rates for investors, access to external financial resources, amount of dividend payments, financing from retained earnings, variety of financial instruments, capital structure transparency, debt-equity balance. Suitability of capital structure for market conditions, cost of capital, debt-to-asset ratio, accurate financial needs prediction, bankruptcy risk, level of venture capital investment.

Investment	Building investor confidence, attracting foreign investment, reducing market volatility, incentivizing long-term investment, minimizing investor errors, aligning company returns with expectations, shortening payback periods, and providing transparent company values. Reducing raw material and energy costs, government financial support, ICT infrastructure development, currency stability, profitability through cost reduction, and providing long-term loans to startups.
Production Costs	Costs of raw materials like electronics and components, salaries for engineers and technicians, waste and defective parts costs, equipment purchase and maintenance, R&D for product improvement, packaging, transportation, and operational overheads like utilities. Component failure rate, parts lifespan, quality and durability, unofficial payments, bureaucratic import/export costs, excessive taxes and fines, and waste management expenses.
Product and Service Quality	Attractive product design, high-quality materials, computer efficiency and lifespan, rigorous production control, regular equipment maintenance, adequate staff training, effective quality systems, standards compliance, advanced technology, and proper material storage. Customer needs consideration and enhanced post-sale services.
Competitive Ability	Sourcing quality materials affordably, hiring skilled personnel, ensuring adequate financing, meeting international standards, developing export strategies, efficient resource use, solving technical problems, leveraging new opportunities, and addressing customer needs. Using innovative technologies, adapting to environmental changes, enhancing research activities, and expanding distribution networks.
Innovation and Creativity	Investing in R&D, promoting creativity culture, addressing legal issues for startups, recruiting skilled personnel, implementing innovative projects, establishing infrastructure, creative software design, developing AI algorithms, and designing new hardware. Skills training, creativity techniques, international collaboration, market analysis, advanced technology application, and user-friendly interface design.
Professional Ethics	Privacy protection, responsible AI use, cybersecurity, respecting intellectual property, avoiding conflicts of interest, fair working conditions, developer accountability, compliance with ICT laws, and promoting environmental sustainability. Honesty, transparency, responsible network usage, avoiding deception, protecting data integrity, and ensuring ethical infrastructure development.
Commercialization of Ideas	Utilizing ICT for idea commercialization, supportive ICT regulations, technological maturity, market demand, network collaboration, developing market-aligned technologies, market assessment, financial resource allocation, and simplifying regulatory processes. Intellectual property protection, effective marketing, product compliance, reducing technological risk, and providing reliable after-sales services.
Knowledge and Experience Exchange	Leveraging expert knowledge, promoting open culture, effective knowledge management, using social networks for collaboration, flat organizational structures, workshops, developing e-learning, hosting conferences, collaboration networks, and publishing research. Documenting successful experiences, using new technologies, collaborating with universities, ensuring data security, and establishing common standards.

Table 1 indicates that causal conditions comprise nine main categories: capital structure, investment, production costs, product and service quality, competitive ability, innovation and creativity, professional ethics, commercialization of ideas, and knowledge and experience exchange.

Contextual Conditions: These refer to specific characteristics or features that are linked to the phenomenon. In other words, they describe the setting in which actions are taken to manage and respond to the phenomenon. The details are presented in Table 2.

Table 2. Open Codes and Categories for Contextual Conditions

Axial (Category)	Code	Concept (Open Codes)
Advanced Technology		Cloud computing, AI, blockchain, IoT, VR and AR, computer networks designed for user needs, appropriate network topologies, automation technologies, selecting suitable switches and routers. Creating IT infrastructure, quick network access, monitoring technology trends, designing flexible infrastructure, data analytics for efficiency, and developing high-speed communication networks.
Buyer Behavior		Behavior influenced by experience, seeking value, income decline impact, substitute goods influence, price sensitivity, preference for discounts, shifting needs, environmental awareness. Interest in efficient products, product design importance, social media impact, and preference for post-sale services.
Competitive Environment		Industry structural changes, unhealthy competition, high innovation speed, rapid technological advancements, high R&D investment costs, competition for advanced products, and low-cost product competition. Effective marketing strategies, international competitors, quality and price competition, large customer base, high industry attractiveness, new company entry, intense rivalry, and industry barriers.

These contextual conditions highlight the environmental and technological settings that affect the phenomenon under study.

Intervening Conditions: These are general conditions that influence processes and strategies, either intensifying or weakening phenomena. These conditions are detailed in [Table 3](#).

Table 3. Open Codes and Categories for Intervening Conditions

Axial (Category)	Code	Concept (Open Codes)
Market Efficiency		Sudden changes in stock prices, lack of trust from customers and shareholders, absence of information transparency, lack of clarity in company performance assessments, confidential trading information, high probability of market failure, and lack of information symmetry.
Government Policies		Reduced market oversight, increased corruption, insufficient access to data, high transaction costs, speculative behavior, disconnection between stock prices and intrinsic values, hidden market values, herd behavior, inefficiency of traditional markets, and public mistrust. Inappropriate tax policies, lack of support for startups, unfair competitive opportunities, special privileges, inadequate economic growth planning, extensive e-commerce filtering, import delays, customs bottlenecks, and bureaucratic inefficiencies.
Development Status		Government monopolies, preventing new market entrants, prioritizing public sector over private sector, inadequate support for startups, inconsistent regulations, improper financial policies, limited international economic interactions, and inefficient resource allocation by the government. Improving ICT infrastructure, enhancing human development indicators, innovative production methods, marketing and distribution system advancements, reduced trade costs, leveraging modern technologies, and creating economic opportunities. Increased citizen welfare, development of digital businesses, removal of geographical restrictions, and access to new markets as aligned with the country's development status.

According to [Table 3](#), intervening conditions include three main categories: market efficiency, government policies, and the country's development status.

organized for management or response. The core category of this study is intellectual capital, whose features are outlined in [Table 4](#).

Core Category: The core phenomenon refers to the main event or occurrence around which a series of actions are

Table 4. Open Codes and Core Category

Axial (Category)	Code	Concept (Open Codes)
Intellectual Capital		Enhancing human, structural, and customer capital; increasing employee knowledge, skills, and experience; job competence and morale; employee capabilities; proper compensation systems; employee flexibility and satisfaction; learning and creativity; and improving formal and informal relationships. Enhancing social networks, management philosophy, processes, habits, intellectual property, brand protection, data and knowledge security, patent registration, company reputation, customer loyalty, effective stakeholder relationships, and intellectual capital measurement. Investing in research and development, creating effective knowledge management systems, and comprehensive intellectual capital management and reporting.

Based on [Table 4](#), the core category in this study is intellectual capital, which is the primary focus of this research.

responding to it effectively, while outcomes include tangible and intangible impacts. Strategies and outcomes are presented in [Table 5](#).

Strategies and Outcomes: Strategies refer to solutions for addressing the phenomenon, aimed at managing and

Table 5. Open Codes and Categories for Strategies and Outcomes

Axial (Category)	Code	Concept (Open Codes)
Company Management Policies		Valuing employee knowledge and experience, retaining valuable talent, implementing proper recruitment and retention strategies, increasing employee engagement, improving productivity policies, ensuring psychological and job security, and work-life balance. Employing specialists, making accurate product development decisions, efficient resource management, entrepreneurial decision-making, and appropriate managerial responses to market volatility and regulatory changes.
Risk Management		Managing credit, liquidity, operational, and market risks; handling regulatory changes; investment uncertainty; bankruptcy risks due to market volatility, production costs, and competition; technological obsolescence; and securing networks against cybersecurity threats.

Supply Chain Management	Optimizing raw material procurement, inventory management, effective logistics, demand forecasting, minimizing holding costs, using historical data, analyzing markets, maintaining supplier relations, selecting appropriate suppliers, and optimizing production processes. Utilizing advanced technology, efficient distribution, timely product delivery, effective warehouse management, route optimization, providing maintenance services, and implementing effective supply chain management systems.
Production Capability	High production capacity, advanced technology, modern methods, sustainable output, minimizing disruptions, integrated planning, resource flexibility, efficient material sourcing, industrial automation, reducing breakdowns, and enhancing machine efficiency.
Sales Capability	Building customer trust, branding, effective CRM systems, market trend forecasting, business stability, efficient marketing, competitive pricing, new product offerings, expanding market share, attracting and retaining customers, and entering new markets.
Export Capability	Offering competitively priced products globally, accessing new export markets, increasing export volume, efficient logistics, reducing transportation costs, simplifying international transactions, and ensuring compliance with global standards.
Profitability	Maintaining profit margins, profitability aligned with inflation and investor expectations, competitive product pricing, exchange rate stability, minimizing tax and customs duties, efficient energy subsidies, and increasing demand in domestic and international markets.

According to Table 5, strategies and outcomes in this study include company management policies, risk management, supply chain management, production capability, sales capability, export capability, and profitability.

This research uses axial coding to link categories and subcategories, forming a conceptual model based on the paradigm to illustrate these relationships. Figure 1 shows the conceptual model derived from axial codes.

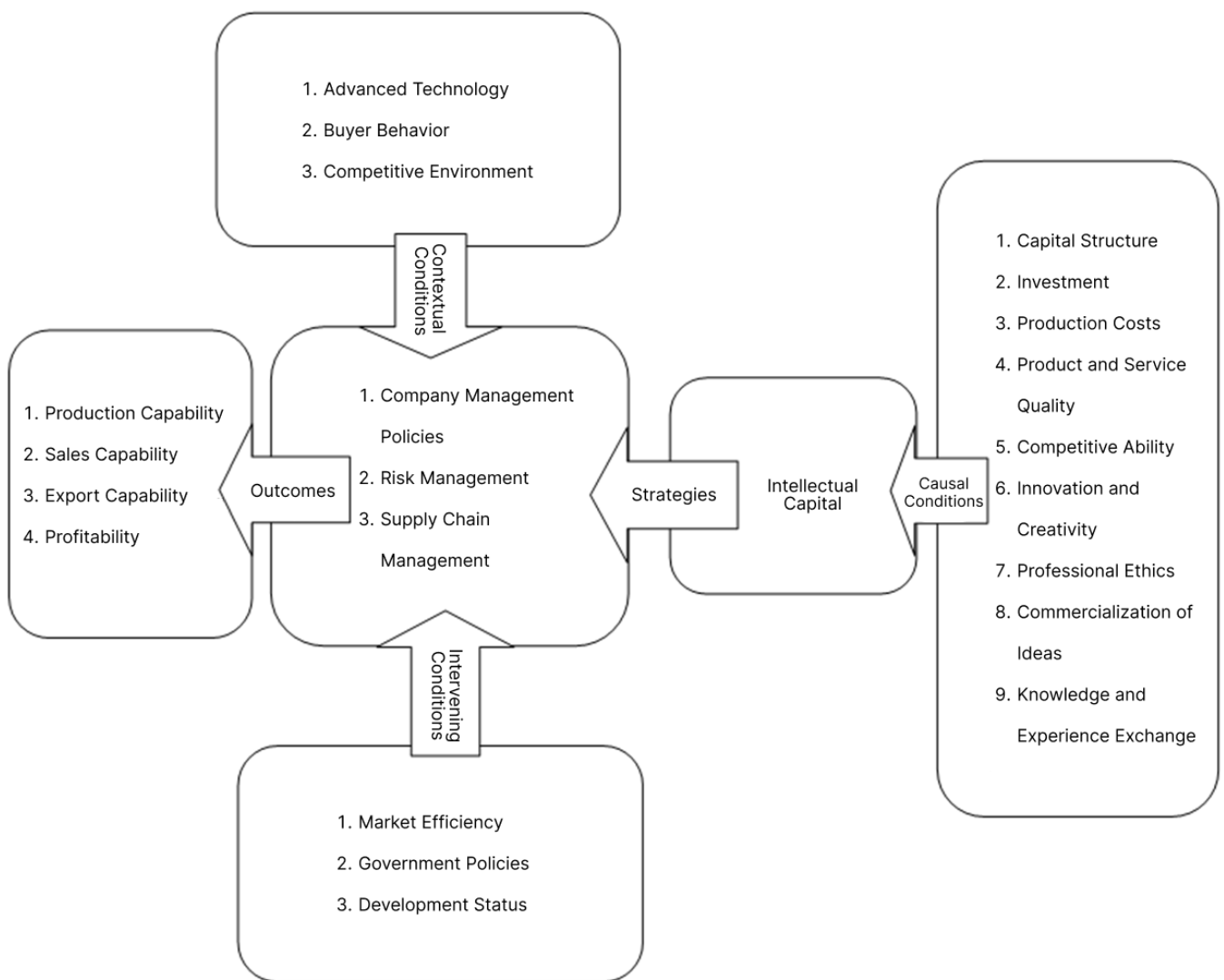


Figure 1. Conceptual Model of the Study

The paradigm model highlights events and occurrences leading to the development of the core phenomenon, intellectual capital. The causal factors of intellectual capital include capital structure, investment, production costs, product quality, competitive ability, innovation and creativity, professional ethics, and knowledge exchange. Contextual conditions affecting strategic choices include advanced technology, buyer behavior, and the competitive environment. The most significant intervening factors impacting intellectual capital strategies are environmental conditions like market efficiency, government policies, and the country's development status. Ultimately, strategies related to the core category—intellectual capital—comprise company management policies, risk management, and supply chain management, leading to enhanced outcomes such as production capability, sales capability, export capability, and profitability.

4. Discussion and Conclusion

Based on expert opinions, the results indicate that intellectual capital, as a core phenomenon in organizations, is influenced by a set of causal and contextual factors that impact its development and productivity. The causal factors include capital structure, investment, production costs, product and service quality, competitive ability, innovation and creativity, professional ethics, commercialization of ideas, and knowledge and experience exchange. These factors contribute to the formation and strengthening of intellectual capital, enabling organizations to leverage their intangible assets. Contexts such as advanced technology, buyer behavior, and the competitive environment also influence the selection of various strategies, creating a suitable foundation for the growth of intellectual capital. Significant intervening conditions, such as environmental factors related to market efficiency, government policies, and the country's development status, play a key role in shaping intellectual capital. In this regard, management strategies like company management policies, risk management, and supply chain management ultimately lead to positive outcomes for intellectual capital. These outcomes include production capability, sales capability, export capability, and profitability, which in turn strengthen the competitive position of organizations in both domestic and international markets. Therefore, intellectual capital is recognized not only as a valuable asset but also as a driver of innovation and sustainable growth in organizations. According to this model, organizations must continuously

identify and enhance factors affecting intellectual capital to exploit their competitive advantages and succeed in today's complex and dynamic world.

According to the theory of ecology or gradual evolution, organizations, like humans, come and go, but unlike humans, they are not necessarily doomed to perish. Organizations pass through several stages in their life cycle, between the phenomena of establishment and dissolution. The life cycle of an organization generally includes four stages: emergence, growth, maturity, and decline. The environment naturally selects some organizations for survival and others for extinction. In other words, environmental necessity causes some organizations to continue operating while others cease their activities. Ecologists argue that organizations that survive have appropriate resources and structural dimensions that enable them to overcome crises. Like organisms in nature, organizations must acquire sufficient and essential resources to continue existing. They must compete with other organizations for resources, and since scarcity of resources always exists, only the fittest organizations survive. The nature, number, and distribution of organizations at any given point depend on their resource access and the level of competition among different organizational species, highlighting the importance of environmental factors. The environment determines which organizations succeed and which fail by selecting the strongest competitors.

Additionally, according to the resource-based theory, companies can focus on strategies rooted in internal sources of profit rather than those based on external environmental factors. Firm resources and capabilities are regarded as the main sources of competitive advantage and the foundation for strategy formulation. The resource-based theory provides a managerial framework for identifying a company's strategic resources to achieve sustainable competitive advantage. Resource-based theorists focus on organizational resources that can serve as sources of competitive advantage. The higher the rate of environmental change, the more likely it is that internal resources and capabilities provide a more reliable basis for long-term strategy compared to external market focus. Resources are productive assets that a company owns, while capabilities are what the company can do. The resource-based approach is a modern strategic management perspective and the basis for formulating organizational strategies. Sustainable competitive advantage primarily arises from developing a competitive edge in internal resources. Furthermore, studying the evolution of strategic resources shows that company resources have

evolved from physical resources, such as raw materials, to human resources and tacit knowledge, becoming critical for capturing target markets.

Iranian companies in the computer industry, given the high rate of change in the industry environment, should understand and appropriately respond to contextual factors like rapid technological advancements, shifts in buyer behavior patterns, and the competitive environment, based on the organizational ecology theory. Additionally, they must acquire accurate and comprehensive information about intervening environmental factors, such as market efficiency, government policies, and the country's development status, and implement necessary control measures to mitigate adverse effects. Moreover, based on the resource-based theory and the analysis above, Iranian computer industry companies can create sustainable competitive advantages by optimizing capital structure, making favorable investments, reducing production costs, and improving product and service quality as internal resources. They should also leverage capabilities such as knowledge and experience exchange, professional ethics, idea commercialization, creativity and innovation promotion, and enhancing competitive ability. By understanding the evolutionary trajectory of strategic resources, shifting from physical to human resources and tacit knowledge, these companies can use intellectual capital as a competitive advantage to capture target markets. Through the design, formulation, and implementation of appropriate strategies—such as company management policies, risk management, and supply chain management—they can achieve important goals and outcomes, including production capability, sales capability, export capability, and profitability.

Authors' Contributions

Authors equally contributed to this article.

Acknowledgments

Authors thank all participants who participate in this study.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

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