A Conceptual Model for Evaluation the Impact Factors Affecting Organizational Performance in Supply Chain

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Abstract

In today's competitive world, competition from the level of companies is drawn to the competition between their supply chain. The purpose of this study was to design and validate a suitable model for identifying and ranking effective factors and key indicators related to the performance of the organization in the supply chain of Saipa Company. The research method is objective and applied in terms of method, descriptive and correlation. The research tool was in the qualitative section, interview and in the quantitative section, a questionnaire. Data analysis in the qualitative section was used to identify the dimensions of the variables with the help of the industry's elite and through the analysis of the fuzzy Delphi, which ultimately resulted in 179 components in four factors: "Technology Capability", "Innovation Capability", "Competitive Advantage" and "Organizational Performance" is identified. Fuzzy hierarchy analysis was used to rank the identified factors. In the quantitative section, structural equations were used to fit the model. In this regard, after reviewing theoretical literature and drawing up the original model, the research questionnaire was distributed along with the dimensions of 350 experts and managers of the Saipa group and supply chain. The reliability of the questionnaire was confirmed by factor load method, Cronbach's Alpha and composite reliability coefficient (CR) and its validity was confirmed by convergent validity (AVE) and divergent validity. To evaluate the structural model, three coefficients of determination ($R^2$), index ($Q^2$) and statistics ($GOF$) have been used. The dimensions of each of the variables and the prioritization of the dimensions of the variables were determined. The results were

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analyzed using Structural Equation Modeling (SEM) and Software (SPLS) and the relationship between the factors was obtained and the proposed model was confirmed using factor analysis and structural equation modeling techniques. According to the results of the verifiable analysis of this research model, it was found that the performance of the organization depends on the dimensions of "Innovation Capability", "Technology Capability" and "Competitive Advantage" in the supply chain, and has a positive and significant effect.

**Keywords**  
Technology Capability, Innovation Capability, Competitive Advantage, Organizational Performance, Structural Equation Modeling

**Introduction**  
The contemporary world is changing rapidly. Organizations, as one of the most prominent features of today's societies, are also rapidly evolving, and in the current system, improving the performance of the organization is one of the major goals of any organization. Therefore, investigating the variables affecting the performance of organizations can be a good guide in improving, enhancing and developing the performance of an organization. Given the complex and competitive conditions that have arisen over the past few years, the need to examine the performance of organizations has become increasingly important. Hence, organizations strive to improve their performance in order to survive and achieve a better position than other organizations. Organizational performance is a multidimensional concept of organizational effectiveness and operational efficiency. Due to the fast pace of globalization and the need for companies to compete in the global arena, Technological Capability is regarded as a Competitive Advantage for global market presence (Archibugi, 2003). Therefore, technology is considered a prerequisite for economic growth of today's organizations, a golden key in the business environment, and an essential weapon in competition between companies (Allameni, 2012). Technological development, also known as
Technological Capability, requires persistent activities, which are rooted in organizational strategies and procedures (Katkal, 2010). In such an environment, organizational survival depends only on the achievement of superior Organizational Performance by paying attention to effective factors influencing Organizational Performance. This is because that poor Organizational Performance not only fails in attracting new customers, but also disrupts the trust of current customers. Performance is an essential element of organization analysis, and there is no theory on organization without considering this concept (Kroeger, 2007). On the other hand, technology significantly contributes to trade promotion and facilitation. At the enterprise level, technology plays an important role in improving competitiveness through manufacturing distinct products, creating new business opportunities, and reducing costs (Zhoa, 2006). Companies must be able to manage and manage their external competitors and create competitive advantage over their competitors. Therefore, the proper management of resources and the integration of resources for their use to achieve competitive advantage is very important (Gove, 2003). Technology has a vital role in organizational activities. There are many issues to be considered in implementation of new strategies with conventional systems (Alan, 2012). In order to adapt to unpredictable changing environments, companies must re-configure their resources, while responding to changing environments, they should responsive to market changes (Eric et al., 2013). Companies should combine technology-specific resources with their unique capabilities to deliver sterling performance (Ong and Chen, 2013). The capabilities of technological innovation are crucial determinants of the competitive advantage, and the survival and development of modern organizations depends on the knowledge and applications of technology. However, for many organizations, the relationship between investment capability and technological innovation capabilities and how it affects the capabilities of both
technological innovation and the company's competitive performance is still unclear (Lang et al., 2012). Studies suggest inferior status of the national innovation systems in developing countries (Sagar, 2010). Moreover, companies need to develop a network of suppliers, users, and local research institutes to promote dynamic learning and make technological changes, aiming at adjusting themselves to local technologies (Bell and Figordo, 2012). Therefore, the technological complexities, innovation systems, and competitive capabilities of companies in developing economies depend on their access to modern technologies and technology import (Behasin, 2014). One of the key components in the economic growth and prosperity of the countries of the world is the ability of the technology of the countries, hence the various countries of the world are struggling to increase their level of technological capability (Erensai, 2006). Kim (1997) defined Technological Capability as an efficient use of technological knowledge in order to create, apply, distribute, accept and modify existing technologies. This concept is not limited to organized research and development in advanced countries, rather concentrates on principles such as commercial exploitation of technology. Today, firms are successful and can survive in a highly competitive world, constantly applying new thoughts and ideas, and creating an environment conducive to creativity and innovation, and value the profitability of innovative initiatives. Because forecasting market changes is difficult and complicated, business executives must consistently seek to generate innovation with and prompt removal of needs and customer satisfaction (Kraatz, Zajac, 1996) (Zack, 2002). Today, due to the increasing technological complexity of products and processes, and the need for high-tech capabilities, products, processes, and their prerequisite technologies will be planned, designed, and built with the participation of the parent company and suppliers in the supply chain of an organization. As a result, the parent company should pay adequate attention to the supply chain Technological Capability in its
technology development strategy. The supply chain of a parent company includes three technology groups, namely product, process, and supplier. Product technology is the technology used in the product corpus to realize its functions and is the result of the activities of engineering design units. As the result of the activities of manufacturing engineering units, process technology is the technology used in product design and manufacturing. Supplier technology is a group of technologies pertinent to products and processes of a parent company implemented in supplier companies and supply chain. These technologies are transferred to the parent company in form of product and process elements. A parent company, with a supply chain, involves all of these three groups in an integrated and interconnected way. Given the tight competition between companies and countries in the global market and the pace of globalization, Technological Capability has been regarded as a Competitive Advantage for effective presence in global competitive markets. This is because countries with Technological Capability have an easier access to new markets and are more likely to produce distinct products. As a result, they guarantee their survival and further developments by preserving Competitive Advantage in the global arena. Therefore, insufficient attention from the parent company to supply chain technology may hinder the implementation of the development and process which, in turn, impair its performance. In this research, efforts have been made to identify the key dimensions and key factors affecting the organizational performance in the automotive supply chain. By presenting a conceptual model, supply chain companies have identified and applied these effective factors at the supply chain level and in this way, in today's global competitive space, they will help them achieve the necessary tools.
A CONCEPTUAL MODEL FOR EVALUATION THE IMPACT FACTORS

Background

Researchers have provided many definitions for the concept of technology, which reflects their attitudes based on their field of study. In that, there are a variety of definitions developed from different scientific perspectives. For example, technology is seen as something that converts an input into an output from the economic standpoint. This view considers technology tangible or intangible products and services that are manufactured and introduced to the market, and a knowledge exploited by an effective and productive attempt (Radfar, 2016). Technology is a stimulator of sustainable economic development, and many national and international studies have investigated the effect of Technological Capability at a macro level (Carla et al., 2017). Technology capability plays a remarkable role in productivity achievement in production process and innovation. It is related to skills, knowledge acquisition, and technology transfer and development of the company and acts as a channel to overcome problems. Technological Capability can be regarded as a quantitative and qualitative criterion for problem-solving. The quantitative Technological Capability can provide a better understanding of technology behaviors and potentials, act as a tool for performance analysis, and support decision and dynamic resource of technology in a company (De Mori et al., 2016). Technological Capability are an effective factor in all countries with their role in economic development and international competition, specifically in developing countries by expanding their attraction capacity (Sobank et al., 2014). Technological Capability be regarded as a persistent process in technology acquisition or development, enabling companies to introduce distinct products and services. These capabilities are linked to internal and external factors. Different definitions for Technological Capability can be found in the literature that point to either structural or functional/strategic factors of a company. On the other hand, some researchers have highlighted the specific and internal
dimensions of the companies. Some researchers also mentioned external factors. Technological Capability refers to the ability to acquire, use, accept, exploit, transfer, and distribute technologies that cover a set of resources, skills (operational, organizational, and linkage) and learning mechanisms (Claudia et al., 2016).

There are two basic approaches to measuring and defining Technological Capability. The first approach deals with the process aspect of Technological Capability including a set of organizational methods and processes (Morrison, 2007). The second approach addresses the output-centered aspects including commercial secrets, technological knowledge, technical knowledge developed by the research and development unit, and technological property like patent (Lee and Pennings., 2001). “Lall” presents three basic dimensions of capability to measure Technological Capability, namely investment, production, and linkage, each of which includes a unique process (Lall, 1992). Competitive Advantage is a factor that distinguishes a company from its rivals and helps to keep companies alive (Gopal, 2014). In today’s competitive world, development of markets, penetration of competitors, and presence of different customers have made it difficult to maintain Competitive Advantage (Monica and Švárová, 2014). Competitive Advantage plays a role in the establishment and survival of companies over time, and can be regarded as the cornerstone of corporate success or failure compared to competitors. Competitive Advantage is a unique advantage that helps companies to achieve higher returns in an industry. Achieving Competitive Advantage leads to competitive dynamicity of companies (Kim et al., 2015). In the basic sense, Competitive Advantage refers to companies’ exploitation of resources to achieve greater performance. In this regard, three key elements, namely resources of Competitive Advantage, and company’ performance, can differentiate a company from its competitors. Competitive Advantage is a basis of strategic planning for companies. It extensively refers to the use of
opportunities and neutralization of competitive threats (Tong, 2016). The mechanism of technological contribution to the Competitive Advantage has long been taken into attention. Although managers have made a major investment in technology, the inflexible conventional systems inhibit the rapid response to market opportunities (Bhatt, 2010). “Lim and Trimi” investigated the effect of technology infrastructure flexibility on Competitive Advantage of small-, medium-, and large-sized companies. Results of this study showed that flexible technology infrastructure positively affects Competitive Advantage (Lim, Trimi, 2014). “Oghojafor” studied competitive strategies, technical capabilities, and Organizational Performance in manufacturing industries and showed that Technological Capability affected Organizational Performance and could lead to Competitive Advantage (Oghojafor et al., 2014). “Nishitani and Itoh” also showed that companies adjust themselves to suit the changing environmental needs through innovation and provision of new services and products in a process that leads to Competitive Advantage (Nishitani and Itoh, 2016). “Reguia” showed that companies should try to obtain customer satisfaction for Competitive Advantage development. In other words, companies can achieve Competitive Advantage through innovation in products and identification of customer needs (Reguia, 2014). “Sushanta” investigated the effects of technology on the supply chain performance. Results showed that technology improved logistic effectiveness, operational effectiveness, effective customer relationship, effective supplier relationship, and Competitive Advantage. Final results suggested supplier chain as a key factor for achieving Competitive Advantage (Sushanta et al., 2016). “Jayaram” studied the effect of technology on the supply chain performance. Results showed that the key structures in risk-taking and management style affect the supply chain management of these businesses (Jayaram et al., 2014). “Mikalef and Pateli” studied dynamic Technological Capability and its effect on Competitive Advantage. Results showed that
dynamic Technological Capability affected operational agility and market investment agility, and Technological Capability have an indirect impact on Competitive Advantage (Mikalef and Pateli, 2017). “Claudia” investigated technology assessment and developed a model to measure its effect on Organizational Performance. They studied criteria and developed models using AHP method. Results showed that the promotion of technology, processes, procedures, learning mechanisms, coordination, and accessibility are among the most important factors influencing Technological Capability in order to improve Organizational Performance (Claudia et al., 2016). The results indicated that organizational, human, strategic, and technological factors are influential on the organizational agility development (Rashidi et al, 2019). The supply Chain sustainability across the automotive sector, is related to economic, social, environmental and governance pillars (Alahyari and Pilevari, 2020). As we can see, the study of past research has been carried out separately and without considering the simultaneous effects of the variables on the effective factors of "Technology Capability", "Competitive Advantage" and "Innovation Capability" and prioritizing the dimensions of these variables on the Organizational Performance. There is no conceptual model in this regard, and they have only classified a number of indicators that have not been tested by structural equations modeling(SEM). The important point is that the indicators and criteria for evaluating variables are general and do not include all the effective dimensions. Also, in other research, the effect of some factors on each other and on organizational performance are measured, but in this research, we are going to examine all the gaps by presenting the indicators of "Technology Capability", "Competitive Advantage" and "Innovation Capability" and considering all aspects of those factors, and its effect on Organizational performance in the supply chain. According to research literature the research hypotheses are as follows:
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- Technological Capability has a positive and significant effect on Competitive Advantage
- Technological Capability has a positive and significant effect on Innovation Capability
- Technological Capability has a positive and significant effect on Organizational Performance
- Competitive Advantage has a positive and significant effect on Organizational Performance
- Innovation Capability has a positive and significant effect on Organizational Performance
- Innovation Capability has a positive and significant effect on Competitive Advantage

By examining the literature in the field of research, it is clear that numerous research and papers have been conducted on the subject of research, but these studies have only addressed a part of the dimensions and indicators of the concept, and in none of the researches, an examination of all its dimensions and indicators has not been integrated. All researches were carried out to identify the dimensions and indicators. By comprehensive literature review, the three dimensions (key factor) and (31) indicators were finally identified. The (9) index related to the "Technological Capability" dimension. The (8) index related to the "Competitive Advantage" dimension, the (8) index related to the "Innovation Capability", and the (6) index related to the" Organizational Performance" as presented in Table (1).
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Table 1. 
Introduction of Research Variables, Dimensions, and Items

<table>
<thead>
<tr>
<th>Variable</th>
<th>Dimensions</th>
<th>Items</th>
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<tbody>
<tr>
<td>Product technology capability</td>
<td>Transfer of technology in compliance with policies - implementation and application of suitable cost-saving technology - Application of suitable technology</td>
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<tr>
<td>Process Technology capability</td>
<td>Desirable efficiency through technology - production in compliance with engineering specifications of products - reduction of operational cost - reduction of implementation time - improvement of service provision</td>
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<tr>
<td>Technology suppliers and supply chain</td>
<td>Creating compatibility between customer needs and parent company through the supply chain - implementing product and process development in the supply chain - improving demand prediction through suitable technology</td>
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<tr>
<td>Capability of core activities and support</td>
<td>Studies into the exploitation of new technologies - development of organizational infrastructure - promotion of human resource management system - supporting technological development - technology based procurement - financing</td>
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<tr>
<td>Tools and skills</td>
<td>Suitable organization and management - application of new production machinery and tools - improvement of human skills and experiences - investigation into physical limitations in using technology - enhancement of information and knowledge</td>
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<tr>
<td>Strategic capability</td>
<td>Suitable leadership for technology development - designing and engineering for production technology - manufacturing new products using modern technologies - marketing and sale using modern technologies and tools - providing functional support through technology - learning modern technology - development, attraction, and application</td>
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<tr>
<td>Investment Capability</td>
<td>Optimal investment allocation - allocation of a share of total revenue to R&amp;D - purchasing tangible technologies (equipment and machinery) - purchasing intangible technologies (license and patent) - improving the process and product technology</td>
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<td>Organizational capabilities</td>
<td>Supervising technology - development and proliferation of technology - adjustment and improvement of technology – technology retention - accepting technology</td>
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<tr>
<td>Employee competence</td>
<td>Employees capability of planning - employees skill - employee enthusiasm for new technology - cooperation</td>
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<thead>
<tr>
<th>Variable</th>
<th>Dimensions</th>
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<tr>
<td>Unique competence</td>
<td>Suitable financial resources - unique physical assets - fine reputation -</td>
<td>- irreplaceable employees and managers - unique services - irreplaceable processes - innovation in product - modern technology</td>
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<td></td>
<td>Using advanced methods - trust in and adherence to values - compatibility</td>
<td>- the inability of competitors to use and acquire the company's procedures</td>
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<td>with the environment - rapid reaction to environmental changes and addressing</td>
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<td>needs - the inability of competitors to use and acquire the company's</td>
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<td>procedures</td>
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<td>Maintenance capability</td>
<td>Investment capability - preserving resource and service quality - unique</td>
<td>- teaching and learning - develop ability of capability - unique industrial properties</td>
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<td>information and information security - teaching and learning - develop</td>
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<td></td>
<td>ability of capability - unique industrial properties</td>
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<td>Opportunism/</td>
<td>efficient use of opportunities and coverage of costs - customers as valuable</td>
<td>- the organization to create desirable conditions</td>
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<tr>
<td>punctuality</td>
<td>opportunity for the organization to create desirable conditions</td>
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<tr>
<td>Customer value creation</td>
<td>Creating special customer prestige - concentration on specific service provision</td>
<td>- provision of services in accordance with customer expectation - customer as valuable capital - timely services - creating a sense of trust</td>
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<tr>
<td>Beginning period</td>
<td>Maintaining competitive status due to low costs - low human resource cost -</td>
<td>- inexpensive raw materials - possibility of product copying</td>
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<td>of competitive advantage</td>
<td>acquisition of advanced research and development, management competence, and</td>
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<td>advanced marketing from overseas partners</td>
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<td>Growth period of</td>
<td>Concentration on innovation as leading organization - production with low</td>
<td>- cost reduction</td>
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<td>competitive advantage</td>
<td>price - cost reduction</td>
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<td>Maturity period</td>
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<th>Variable</th>
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<td><strong>Innovation Capability</strong></td>
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<td>Ability to innovate in</td>
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<td>attracting customers</td>
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<td>Using database - retention of employees and development of capabilities - quality management system</td>
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<td>Ability to innovate in</td>
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<td>product production</td>
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<td>Replacement of obsolete product - leading in the supply of new goods and services - product innovation based on customer needs - replacement of product before competitors - using modern technology - product development</td>
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<td>Innovation Capability of Process</td>
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<td>Using basic technology - paying</td>
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<td>attention to production and</td>
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<td>process innovation - developing</td>
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<td>knowledge for using best process</td>
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<td>- organizing production</td>
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<td>- environment-friendly process</td>
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<td>- process integration</td>
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<td><strong>Fundamental innovation</strong></td>
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<td>Changes in the process in</td>
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<td>accordance with conditions</td>
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<td>- rapid use of new technologies</td>
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<td><strong>Administrative innovation</strong></td>
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<td>Modern attraction, recruitment,</td>
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<td>and assessment systems - using</td>
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<td>opinions of consultants and</td>
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<td>experts - using training</td>
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<td>courses to improve creativity</td>
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<td>and innovation</td>
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<td><strong>Service innovation</strong></td>
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<td>Provision of modern services</td>
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<td>- research on new projects</td>
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<td>- considering comments and</td>
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<td>recommendations</td>
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<td><strong>Evolutionary structure</strong></td>
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<td>Permanent and continuous</td>
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<td>relationships between units</td>
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<td>- facilitating information flow</td>
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<td>- social acknowledgment</td>
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<td>procedure</td>
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<td><strong>Emphasis on open system</strong></td>
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<td>Identification of customers and</td>
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<td>their needs - acquisition of</td>
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<td>information from the</td>
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<td>environment - implement ion of</td>
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<td>new strategies by employees</td>
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<td><strong>Organizational Performance</strong></td>
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<td><strong>Economic performance</strong></td>
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<td>Growing faster than competitors</td>
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<td>- making profit more than</td>
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<td>competitors - greater customer</td>
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<td>satisfaction - improvement of</td>
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<td>fiscal ratios</td>
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<td><strong>Process performance</strong></td>
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<td>High-quality product - more</td>
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<td>efficient use of resources -</td>
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<td>faster delivery of orders -</td>
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<td>process improvement through</td>
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<tr>
<td>suitable technology - organization risk reduction - creation of organizational culture and appropriate accountability</td>
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<table>
<thead>
<tr>
<th>Variable</th>
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<th>Items</th>
</tr>
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<tbody>
<tr>
<td>Internal performance</td>
<td>Employee satisfaction - promotion of employee competence - creative and innovative employees - customer attraction</td>
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<td>Coherence of performance information</td>
<td>Provision of accurate and timely reports - lack of incompatibility between information system reports</td>
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<td>Responding to customers in order to improve performance</td>
<td>Providing a real picture of the situation - results of performance indices</td>
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<tr>
<td>Relationship around performance</td>
<td>Proper transfer of information at the company level - open and permanent communication between organizational units - exchange of knowledge and experience between units - development of the organizational strategy with employees participation</td>
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</tbody>
</table>

According to the studies, the conceptual model of research based on the relationship between "Technological Capability", "Innovation Capability", "Competitive Advantage" and its relation to the "Organizational Performance” is presented in Fig. (1).

![Conceptual Model](image-url)

Figure 1.
The Research Conceptual Model
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Based on the proposed conceptual model and considering the dimensions of each research variable, the conceptual model of the research is presented in Fig. 2.

Figure 2.
Conceptual Model of Research and Dimensions of Variables
Methodology

The research method is applied in terms of purpose and in terms of method it is descriptive and correlational. The research tool for collecting data in qualitative part was interview and in quantitative part was questionnaire. Initially, while studying the literature and background of the research, as well as examining the empirical documentation of the parent companies, baseline data were collected and the research components and variables were identified. To reinforce the generalizability of the results, the study was conducted in two steps based on data from separate sources. Initially, while studying the literature and reviewing the research background, as well as examining the empirical documentation of automotive parent companies, in-depth interviews were conducted with industry experts, and the initial data were collected using context analysis method on interview results. Theoretical research and the initial model were designed. The second step was data collection and analysis after developing the conceptual model and validating the designed model. The method of data collection and analysis at this stage was the implementation of a focus group among the automotive industry experts. In the second stage of the research, in order to ensure the quality and reliability of the designed model, the model was subjected to the judgment of industry experts and experts using the focal group method. In the second phase, with the help of the industry elite, fuzzy Delphi analysis and item screening resulted in the final analysis of 201 components of 179 items in four factors: "technology capability", "innovation capability", "competitive advantage" and "organizational performance". Identified and screened. In the quantitative part, structural equations were used to fit the model. In this regard, after reviewing the theoretical literature of the research and drawing the initial model, the research questionnaire was distributed among 350 experts and managers of Saipa Group and Supply Chain. The conceptual model was estimated using factor-confirmatory analysis and the effects of indicators.
related to each of the factors of "technology capability", "innovation capability" and "competitive advantage" on "organizational performance" were identified. The reliability of the questionnaire was confirmed by factor loadings, Cronbach’s alpha and compound reliability (CR) and its validity was confirmed by convergent validity (AVE) and divergent validity. Three indices of coefficient of determination (R2), index (Q2) and statistics (GOF) were used to evaluate the structural model.

To evaluate the measurement model fit, convergent validity and reliability, as well as divergent validity were used. Reliability is used to measure the internal reliability and includes three criteria, namely factor loading, Cronbach’s alpha, and composite reliability (CR). All observed factor loading values were higher than 0.5, suggesting a good correlation between observable and latent variables. In addition, according to the measurement model results, the bootstrapping (t-statistic) in all cases was higher than the critical value (1.96), indicating a significant relationship between observable variables and corresponding latent variables. As a result, it can be concluded that each latent variable is correctly assessed by its observable variables. Therefore, findings of this scale can be used to test the research hypotheses. The composite reliability and Cronbach's alpha of all study model dimensions were higher than 0.7, indicating that the questionnaire had an acceptable reliability. The average variance extracted (AVE) was always greater than 0.5 and the CR for all cases was greater than 0.7, which was higher than the AVE. As a result, the convergent validity was confirmed.

The statistical population of the present study is the high-ranking companies of the Saipa automotive supply chain, and its statistical unit is composed of senior managers and middle managers of the member companies.
Findings

To test the suitability of sampling, the KMO test was used to ensure that the correlation matrix, which is the basis of the factor analysis, is not zero in the society, Butler test was used. If the sum of the partial correlation coefficients between all pairs of variables is small when compared to the sum of the squares of the correlation coefficient, the KMO measure will be close to one. The small KMO measures indicate that correlation between the pairs of variables cannot be explained by other variables; therefore, the application of the factor analysis on variables may not be justifiable.

If the KMO is lower than 0.5, data are not suitable for factor analysis. If the KMO is between 0.5 and 0.69, the factor analysis should be carried out more cautiously. If the KMO is higher than 0.7, the existing data correlations will be suitable for factor analysis. The output of this test can be seen in table 2.

Table 2.
Measurement of Sampling Adequacy

<table>
<thead>
<tr>
<th>Test</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>(KMO)</td>
<td>Measurement of sampling adequacy</td>
</tr>
<tr>
<td>Bartlett test</td>
<td>Chi-square estimate</td>
</tr>
<tr>
<td></td>
<td>Degree of freedom</td>
</tr>
<tr>
<td></td>
<td>Significance</td>
</tr>
</tbody>
</table>

In the overall model of the study, Figure (3), the measurement model (relationship of each observable variable with the latent variable) and structural model (the relationship between latent variables) are calculated. The significance of relationships was measured using the bootstrapping method, Figure (4).
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Figure 3.
Research Overall Model with Partial Least Squares Technique
The direct impact of Technological Capability on Competitive Advantage was obtained as 0.238. The test probability statistics was obtained as 4.282, which was greater than the critical t at the error rate of 5%, i.e. 1.96, indicating that the observed impact was significant. As a result, Technological Capability has a significant and positive effect on Competitive Advantage with the confidence of 95%, confirming the first hypothesis. The impact of Technological Capability on Innovation Capability was obtained as 0.111. The test probability statistics was obtained as 2.043, which was greater than the critical t value at the error rate of 5%, i.e. 1.96, indicating that the observed impact was significant. As a result, Technological Capability has a significant...
and positive effect on Innovation Capability with the confidence of 95%, confirming the second hypothesis. The impact of Technological Capability on Organizational Performance was obtained as 0.147. The test probability statistics was obtained as 2.455 which was greater than the critical t value at the error rate of 5%, i.e. 1.96, indicating that the observed impact was significant. As a result, Technological Capability has a significant and positive effect on Organizational Performance with the confidence of 95%, confirming the third subsidiary hypothesis. The impact of Competitive Advantage on Organizational Performance was obtained as 0.126. The test probability statistics was obtained as 2.278, which was greater than the critical t value at the error rate of 5%, i.e. 1.96, indicating that the observed impact was significant. As a result, Competitive Advantage has a significant and positive effect on Organizational Performance with the confidence of 95%, confirming the fourth hypothesis. The impact of Innovation Capability on Organizational Performance was obtained as 0.187. The test probability statistics was obtained as 2.915, which was greater than the critical t value at the error rate of 5%, i.e. 1.96, indicating that the observed impact was significant. As a result, Innovation Capability has a significant and positive effect on Organizational Performance with the confidence of 95%, confirming the fifth hypothesis. The impact of Innovation Capability on Competitive Advantage was obtained as 0.165. The test probability statistics was obtained as 2.863, which was greater than the critical t value at the error rate of 5%, i.e. 1.96, indicating that the observed impact was significant. As a result, Innovation Capability has a significant and positive effect on Organizational Performance with the confidence of 95%, confirming the sixth hypothesis.
Table 3. Summary and Conclusion

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Direction of Pathway</th>
<th>Effect</th>
<th>T-Statistic</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Technological Capability → Competitive Advantage</td>
<td>0.238</td>
<td>4.282</td>
<td>Approved</td>
</tr>
<tr>
<td>H2</td>
<td>Technological Capability → Innovation Capability</td>
<td>0.111</td>
<td>2.043</td>
<td>Approved</td>
</tr>
<tr>
<td>H3</td>
<td>Technological Capability → Organizational Performance</td>
<td>0.147</td>
<td>2.455</td>
<td>Approved</td>
</tr>
<tr>
<td>H4</td>
<td>Competitive Advantage → Organizational Performance</td>
<td>0.126</td>
<td>2.278</td>
<td>Approved</td>
</tr>
<tr>
<td>H5</td>
<td>Innovation Capability → Organizational Performance</td>
<td>0.187</td>
<td>2.915</td>
<td>Approved</td>
</tr>
<tr>
<td>H6</td>
<td>Innovation Capability → Competitive Advantage</td>
<td>0.165</td>
<td>2.863</td>
<td>Approved</td>
</tr>
</tbody>
</table>

The results of factor analysis showed that the “Innovation Capability” factor with 0.187 has the greatest effect on “Organizational Performance”. The “Technological Capability” factor is at 0.147 and the “Competitive Advantage” with 0.126 is ranked next.

Conclusions

The purpose of this research is to provide a model for identifying and measuring the factors and factors affecting the organization's performance. After studying literature, three variables were identified and determined which plays the most important role in the performance of the organization. Analysis was performed by SPLS software. The priority of variables was determined by "innovation capability", "technology capability" and "competitive advantage" respectively. Therefore, supply chain companies should concentrate on these three areas in order to achieve better results in the organization's performance. Regarding the relationship between these domains, we need to focus on continuous development and improvement of
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these variables. Also, 31 indicators identified in this study can be considered as "improvement" or "critical situation" for future programming and key planning in the supply chain. Finally, the analysis of this research increased the researcher's knowledge about the factors affecting organizational performance and the effect of each of the variables was determined.

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