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Investigating Factors Affecting Organizational Agility

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Purpose: The purpose of this research was to investigate the factors affecting organizational agility in water and sewage company of Tehran province.

Methodology: The statistical population of this research was selected from the experts of the Water and Sewerage Company of Tehran Province, the library method was used to collect the literature of the research, and the data collection tool is a questionnaire. The statistical population of this research is 11000 employees of the Water and Sewerage Company of Tehran Province. And based on Morgan's table, 373 people were randomly selected. Research hypotheses were tested using smart.PLS software.

Findings: The results of the model show that the categories defined in the obtained paradigm model are meaningful and the variables considered in each section have a significant impact. Relationships between the variables of organizational authority, continuous improvement, organizational dynamics, organizational consequences, individual consequences, group consequences, organizational change and transformation, strengthening the organization's strategic management, development and empowerment, organizational climate, organization management subsystems, efficient organization information systems, competence Human power, economic conditions of organization management, socio-cultural environment, global technological environment, policy environment and macro planning of organization management, political environment of organization management, agile management of organization, strategic coordination has been significant.

Conclusion: rganizations must adapt to changes in regulations and policies. Although implementing new regulations is often costly, it can have long-term consequences and the potential for failure.

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1. Introduction

Speed is perhaps the most important wealth in the third millennium and the new age known as the information age. In order to reduce response time and improve flexibility, a completely new form of organizations must be created. Today, competition is important in different dimensions, such as the speed of delivering the product or providing services to the customer, increasing the quality of the product or providing services, and reducing the price of the product. In line with this goal, organizations should focus on the rapid movement of information in terms of production, assembly, distribution, supply, etc. The faster this movement is, the faster the organizations will respond to the needs and demands of the market (Robert and Galuch, 2014). When the competitive priorities have changed and the new era of the global economy has caused the operational strategies of the companies to change. In this era, competitive price and high quality are necessary, but they are not the determining factors of commercial success, and instead, the speed of reaching the market and quick and flexible response to the customer has been considered as a basic principle, and this is why the speed and agility has increased (Robert and Galuch, 2014). Achieving strong competitiveness and superior business performance is a major challenge for companies, especially in a volatile business environment. Customer demand is becoming more dynamic (Windoh et al., 2010) and the frequency of environmental changes is increasing significantly (Ahbelek et al., 2017). This leads to the growth of complexity and uncertainty in the market (Windoh et al. 2010), thus increasing competition (Windoh, 2010). Some organizational capabilities can enable a company to respond appropriately to changing environmental conditions that are rapidly changing and exploit these changes as business opportunities. In this context, Hatzidorano et al. (2019) emphasized a high level of agility as a rewarding ability when the goal is to quickly exploit business opportunities. Minhard et al. (2018) confirmed the high impact of the increasingly dynamic business environment and suggested agility as a differentiation strategy.

In 1982, agility was first mentioned in the context of business as "the ability to respond quickly to rapidly changing conditions" (Brown and Engo, 1989). Organizational agility (OA) describes the set of capabilities of a company to progress and thrive in an unpredictable and rapidly changing environment (Windoh et al., 2012). Organizational agility (OA), as an approach to increase competitiveness, is to create sustainability. Regardless of the industry, managers agree that OA is an important success factor that determines how a company will compete in today's volatile business environment (Desmet & Agina, 2015). Academic research confirms the positive effects of OA on business performance (Inman et al., 2011; Vickery et al., 2010). Studies show that organizations with strong agile capabilities generate revenue 37% faster, 30% more profit than non-agile companies (Glenn, 2009; Wang et al., 2014).

Agility is a new paradigm in the production environment. The production environment has gone through many transitions (from manual industry to mass production and now the latest complete example, i.e. agility) and has been created mostly due to desirable demands to maintain superiority in a constantly changing environment. It has been replaced by small modular sizes and the production of valuable information (Ngai, 2014). Efforts in business are rapidly increasing to use the business data they have access to. To create more value for customers, companies Companies need to use innovative business intelligence initiatives and big data knowledge as well as develop capabilities to deliver anticipated benefits to customers. Companies change through project definition and development, so developing the ability to excel can increase competitive advantage. How The selection, management and transfer of a project (new product/project output) can have a significant impact on the value of a business and the company's initiative (Albee, 2017, Badway, 2016, Wicom, 2016). Chu and Cao (2008). They pointed out that they conducted their study when the concept of agility was relatively immature and the respondents to the questionnaire were practitioners interested in agility. They stated that agile practices have matured significantly because their work is to see if their results are potentially valuable with today's knowledge and also to identify what success factors should be added or removed from their list to make it with the nature of formation analysis projects (Tsoi and Staple, 2020).

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In a fast-paced market, employees must be agile to respond to environmental changes and take advantage of emerging market opportunities (Cai et al., 2018; Pitafy and Ren, 2021). Agility is the ability of employees to react and adapt to an unpredictable environment that changes quickly and appropriately, while trying to adjust it (Cai et al., 2018; Pitafi, Liu, & Cai, 2018). Several past studies Employee agility has shown benefits, including organizational learning, product and service quality, and customer satisfaction (Pitafi et al., 2019). These benefits of agility lead to increased interest in identifying its influencing factors. However, this stream of research is at an early stage with only conceptual inference and anecdotal evidence to answer how to develop employee agility (Chuang, 2020). Nevertheless, previous studies on organizational agility have also consistently mentioned that individual agility is one of the important elements of organizational agility. For example, Chunko and Jones (2005) argued that organizational agility is based on people working together in an organizational environment (Lai et al., 2021).

Organizational agility means the supply of diverse and high-quality products in the shortest possible time. The ability to respond to environmental events is the most important issue for agile organizations. In this century, organizations are constantly looking for their agility and by using the relevant models, they try to respond to changes in a timely and quick manner with their agility; And many believe that the agile production system has emerged as a solution for the survival of organizations. One of the most reliable researches about agility is the research done by Sharifi and Zhang (2001). Based on this research, these two have presented a conceptual model of organizational agility, which includes: organizational agility tools, agility boosters and drivers. Goldman et al. (1995) sought four strategic dimensions to achieve agile competitive capabilities as follows: a: customer enrichment, b: collaboration to improve and enhance capabilities, c: control and curb changes, d: use of leverage. (increasing the impact) of people and information. Johansson (2004) divides agility capabilities into the following four dimensions: a: product-related change capabilities, b: ability to change within operations, c: internal and external collaboration, d: people, knowledge and creativity. Li et al. (2005) also used the fuzzy logic method to determine the qualitative characteristics and measure the specific parameters of agility, and the organizational agility indicators are agile organizational management (in four indicators and eight criteria), agile product or service design (in three index and eight criteria) product production and manufacturing. Worley and Lawler (2010) presented a comprehensive framework for agility and used it to identify the capabilities of organizations. The results of this study showed that becoming an agile organization is challenging; Because it is very difficult to change from one stable state to another. In addition, agility is the dynamic capability of an organization's design that can sense the need for change from both internal and external sources and maintain above-average performance. The main issue is to dynamically align structures, processes and systems to maintain them (Segra et al., 2015). Conforto et al. (2014) focused on innovative projects such as new product development projects. A careful review of the literature revealed that many factors and characteristics of project success are included in the list provided by Chu and Cao (2008). In reviewing the background of the research, seven other characteristics of the success factors of the projects are stated, which are the existence of multidisciplinary teams with appropriate diversity to match the complexity of the work (Conforto et al., 2014; Li Xia, 2010), team commitment Exclusively for the project, goal clarity (Conforto et al., 2014), people's involvement (Dickert et al., 2016), risk appetite level (Sheffield and Lemtyre, 2013; Stroud et al., 2009), uncertainty in using technology to meet needs (Ahbisu et al., 2015; Sheffield and Lemtyre, 2013); and project planning level (Ahbisu et al., 2015). The technical factors dimension deals with the delivery strategy and agile techniques specific to the nature of the project (i.e., the product to be produced), and the other four dimensions, including the organizational, people, process, and project dimensions, deal with factors that must be Apply in any project that uses an agile approach (Tsoi and Staple, 2020).

Agility is a term that is often used in management literature these days and indicates the increasing need for organizations to quickly react and respond to internal and external changes. People have access to technology much faster than before. News spreads at the speed of light. The global economy, disturbances,

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and complexities are all factors that affect today's fast-paced organizations, and the need for organizations to survive has doubled for agility and understanding of the new paradigm, changes in attitudes, goals, work methods, and management of organizations. In line with its strategy, the water and sewage industry, in addition to providing sanitary water and developing sewage disposal services, should act as an economic enterprise. For them, economicization of activities has a very high priority, and considering goals such as increasing revenues, reducing costs, and reducing losses, effective use of existing capacities, downsizing the organization, optimizing the dimensions of the organization, and creating a foundation organization; There are certain sensitivities. Therefore, it is necessary to improve productivity and agility in order to implement the policies of the organization. In the last decade, most companies chose the strategy of reconstruction and reengineering in response to environmental challenges and changes, and since these approaches were not always successful and fruitful, today many organizations and companies are facing uncertain processes that, due to technological innovation, Changing business environments and changing customer needs have intensified. This critical situation has caused major reforms in the organization's strategic vision, business priorities and revision of traditional models and even relatively contemporary models. In other words, it can be said that past approaches and solutions have lost their ability to deal with organizational challenges and the external environment, or it is better to replace them with new approaches and perspectives. Therefore, one of the ways to respond to the factors of organizational change and transformation is agility. Today, globalization has made governments face many challenges. From issues such as the expansion of the European Union to various bilateral trade agreements, it has increased demands from governments. Increasing security issues require more government spending and regulation, which is what creates government accountability and efficiency. Also, new technology provides opportunities for governments to increase their efficiency and accountability, this issue also raises new challenges. In the rest of the article, an overview of the beginnings of the research and hypotheses will be presented. In the next part, the research plan and data collection will be discussed, after the interpretation of the research findings, the conclusions will be drawn.

Agility means the ability to respond and react quickly and successfully to environmental changes. Like manufacturers, other organizations and institutions are forced to look for agility to compete in the 21st century, because modern organizations are facing increasing pressure to find new ways to compete effectively in the dynamic global market. Bill Geiss, the founder and director of Microsoft, says; If organizations are able to create mechanisms with agility and intelligence, they should no longer worry about the unpredictable future. In other words, organizations must change their processes, prices, products and services faster than their competitors. (Becker, 2017) Given that agility enables organizations to quickly adapt and adjust their business processes to meet rapidly changing market demands and maintain competitive advantage amid volatility, we may expect that Agility can be used to sense and respond to emerging environmental and social demands by various stakeholders. However, by conceptualizing agility as a firm-level capability, the way its potential role in inter-organizational environmental collaboration is revealed by individuals. It will remain undiscovered. Based on this, the research in the field of agility and environmental cooperation has so far focused on the organizational level and to some extent ignored micro-level variables (Bogra et al., 2019). The term agility describes how an actor feels and reacts to change. Organizational agility is the ability to survive and flourish in a competitive environment by measuring and responding quickly and effectively to external changes (Zhou et al., 2018). Organizational agility is the ability to deal with rapid, brutal and uncertain changes and grow in a competitive environment full of unpredictable opportunities (Goldman, Nagel, Preiss, 1995; Volberda, 1997). Research literature recognizes two types of organizational agility: market investment agility and operational agility. Market investment agility is defined as the ability to respond quickly to the needs of the target market through continuous monitoring and exploitation of the business environment, and understanding volatile environments as a suitable opportunity for new strategic directions (Sambamoorthy, Bharadoj, Grover, 2003). A strong investment in market agility can help companies leverage existing information and

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knowledge to better position them to sense opportunities in target markets and stay abreast of changing markets. Operational agility is primarily related to the company's ability to learn business operations and adapt quickly as opportunities emerge in markets. This emphasizes the learning capability of a firm to integrate its knowledge with temporal situations, to organize new experiential knowledge to gain comparative advantage in turbulent contexts (Cheng et al., 2020).

Although the intention to implement OA has been widely expanded and research interest in it is high, there remains a fundamental ambiguity about the concept in the research literature (Vansturbot et al., 2006). Unfortunately, the lack of conceptual clarity in organizational research is widespread and has far-reaching implications (Podsefek et al., 2016). A large number of common definitions and disagreements about the concept of OA have led to a lack of common understanding, which makes it difficult to summarize previous findings. The wide range of views on OA exemplifies the fundamental differences in definitional approaches (Walter, 2021).

The existence of different general terms for OA indicates considerable disagreement in the understanding of the concept and shows several different perspectives on OA. For the clarity of the construct and further research, it is important to recognize different understandings and agree on a single perspective (Podsefek et al., 2016). Sharp et al. (1999) considered OA as a "philosophy of management". Branders and Hanna (2009) referred to it as a "philosophical approach". Other researchers have described OA as a “production model” (Mead and Sarkis 1999; Narasiman et al. 2006; Vazquez-Bostelo et al. 2007), “performance capability” (Chu et al. 1996; Sambamoorthy et al. 2003), “strategic capability” (Chekavarti et al., 2013), "dynamic capability" (Besant et al., 2001; Chekavarti et al., 2013), "management strategy" (Marlow and Paxino, 2003), and even "system-specific feature" (Giachetti et al., 2003). are Narasiman et al. (2006) have suggested fundamental differences between the broadest terms, namely "production pattern" and "capability". If OA is seen as a production model, OA is considered as an "operating system" (Narasiman et al., 2006) and includes the company's philosophy, values, and culture. Understanding OA as a pattern represents a high level of abstraction (Narasiman et al., 2006). These broad approaches run the risk of confusing definitions (Narasiman et al., 2006). This is not only a difficult foundation for further research on OA, but also, the difference between two similar concepts is not very clear. In this way, it becomes difficult to distinguish between two similar concepts (Podsefak et al., 2016). Therefore, the paradigmatic approach is considered too superficial (Narasiman et al. 2006) and not suitable for conceptualization (Walter, 2021). Researchers offer different understandings of agility. The following table is an overview of these definitions.

Table 1. An overview of the proposed definitions of organizational agility

Author/year	definitions
Chu et al. (1996)	'[…] the ability to survive in a competitive environment with continuous and unpredictable change by responding quickly and effectively to changing markets, resulting from customer-designed products and services.' (p. 323)
Feng and Zheng (1998)	"An agile company can quickly reconfigure operations, processes and business relationships and thrive in an environment of continuous and unpredictable change." (p. 893)
Gonskaran (1998)	"[…] the ability to survive and thrive in a competitive environment with constant and unpredictable change by responding quickly and effectively to changing markets, resulting from customer-designed products and services." (p. 1223)
Sharifi and Zhang (1999)	"[…] the ability to cope with unexpected changes, survive unprecedented threats in the business environment, and use changes as opportunities." (p. 9)
Gonskaran and Yusuf (2002)	"The ability of an organization, by proactively establishing virtual production with an efficient product development system, to (1) meet changing market needs, (2) maximize customer service levels, and (3) minimize cost of goods, with the goal of Being competitive in a global market and increasing the probability of survival and long-term profit potential." (p. 1362)
Lin et al. (2006)	"[…] the ability of a company to quickly respond to changes in the market and customer demands" (p. 355)
Van Oudeshort et al.	"[…] the ability to quickly and easily change jobs and business processes beyond the normal level of

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(2006)	flexibility to effectively manage unpredictable external and internal changes." (p. 132), "[to] be able to anticipate or respond to changes in a timely manner and with ease" (p. 134)
Zhang and Sharifi (2007)	"[…] There is the ability to compete and thrive in conditions of dynamic change." , reactive or proactive. "(p. 352)
Lowe and Paramotti (2011)	"Organizational agility is an extended ability to deal with changes that often arise unexpectedly in business environments through rapid and innovative responses that use changes as opportunities for growth and development of the suite" (p. 933)
Tesi et al(2016)	'[…] the capacity of an organization to efficiently and effectively reorganize and direct its resources in order to create value and protect value (and capture) higher-yielding activities, as internal and external conditions warrant. (p. 17)
Sindwani and Malhoutra (2017)[1]	'[…] the ability to survive and succeed in a competitive environment with continuous and unpredictable change by reacting quickly and efficiently to changing markets, resulting from "customer-defined" products and services" (p. 467)
Nehatian et al. (2018).	Ability […] The ability to survive and survive in a competitive and unpredictable environment by reacting quickly and effectively to any type of change - anticipated or unanticipated - in appropriate and timely ways. (p. 202)

Agile organizations strive to maintain and improve their competitive position by quickly and efficiently producing high-quality products and reducing costs (Butani 2009; Cheng et al. 2000; Lin et al. 2006; Butani 2009; Gunaskaran et al. 2018; Mishra et al. colleagues 2014), customer satisfaction (Kao and Dolatshahi 2005; Lin et al. 2006; Mishra et al. 2014), employee satisfaction (Lin et al. 2006), the speed of introducing new products (Sharifi and Zhang 2001) and by eliminating processes lacking improve added value (Lin et al., 2006; Mishra et al., 2014). Additional goals of OA are often increasing performance (Narasiman et al. 2006; Wang et al. 2014), profitability (Chekavarti et al. 2013) and increasing market share (Lin et al. 2006; Mishra et al. 2014) Vazquez-Bostelo et al. (2007). Added environmental goals. Several studies support the positive impact of OA on a company's performance (Hazen et al., 2017; Enman et al., 2011; Tallon and Pinsault, 2011; Vickery et al., 2010; Wang et al., 2014; Youssef and Adlieh, 2002). Vasquez-Bostello et al. (2007) found that a higher level of OA has a positive effect on operational, financial and market performance through improved productivity.

Most researchers have limited agility stimuli in the external environment. External changes occur continuously and unpredictably (Sharifi and Zhang 1999; Luo and Ramamurthy 2011) and lead to a highly competitive environment (Gunaskaran 1998) with high frequency (Kao and Dolatshahi 2005; Gayakti et al. 2003). ; Gunaskaran 1998; Mishra et al.). 2014; Zhang and Sharifi 2000). Market changes, technological changes, and globalization are drivers of agility that come from the external environment (Arvindge et al. 2013; Cheng et al. 2000; Feng and Zhang 1998; Ganguly et al. 2009; Gunaskeran 1998; Gunaskeran et al. 2018; Quintana 1998).) a significant number of researchers consider changes in customer demand as a driver of OA (Cardono-Mundgaran et al., 2002; Qureshi and Gossinger, 2004; Bennett and Katma, 1999; Seeger et al., 2000; Vickery et al., 2010). High customer orientation in an agile environment can justify this approach.

The diversity of a company's knowledge reflects the range of technological and application areas in which the company is an expert. It is necessary for a company or organization to be known in a special technical or competence area and thus be unique in the production of certain products. When a company focuses on the development of a specific technology, it definitely tries to develop its knowledge and skills in the field of the company's specific technology (Chen, 2012). Focusing on a specific technology and acquiring knowledge specific to that technology enables the company to produce unique and new products (Adam and Marsit, 2011). With the development of technology, organizations can collect, store and manage their customers' information. To face the challenges of increasing competition and competing in the market, using customer information is vital. For this reason, customer information should be considered one of the company's assets

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that can be used to achieve competitive advantage and support business to focus on customers (Wang and Yang, 2015). In this regard, knowledge management is a suitable option, because its purpose is to support and facilitate the flow of knowledge in organizations. In addition, information systems provide organizational knowledge management through information and communication technology, at the organization level and the development of the quality of goods and services. In this regard, knowledge management helps to properly transfer the knowledge of complaints, to improve the product development process, and knowledge management processes can facilitate product development based on information received from customers (Hellbrandt et al., 2018).

In this regard, Daz (2020) in examining the role of managers' participation and human resource methods in strengthening strategic agility, research showed that managerial skills and behaviors can help to develop organizational agility. Talon et al. (2019) in the review of information technology and the search for organizational agility showed that based on the resource-based perspective or the perspective of information technology capabilities, agility is related to information technology and information technology has an impact on the development of organizational agility. Rachuran (2018) in examining the relationship between IT skills, innovation capacity and organizational agility showed that companies with superior IS capabilities along with an investment orientation in IT investment create digital platforms that create their agility. . The company's innovation capacity has a positive relationship with organizational agility, and companies with higher innovation capacity can better use their digital operating systems to increase agility. Ashrafi et al. (2019) in investigating the role of business analysis abilities in strengthening the agility and performance of companies showed that business analysis abilities strongly affect the company's agility through increasing the quality of information and innovative capacities. We also discuss the moderating effect of technological and market disruptions on the relationship between firm agility and firm performance. Menon and Surach (2020) in the investigation of the effective factors in organizational agility in higher education showed that the ability to understand the environment, organizational structure, adoption of ICT, organizational learning, human resources strategies, leadership, readiness for change and cooperation with stakeholders were the eight factors that were identified. . The structural model showed leadership as the most important factor, followed by human resource strategies and organizational structure. Longo (2020) in examining the impact of strategic agility on company performance showed that the business environment is becoming more dynamic and reaching new milestones based on technology and innovation. Along with the evolution of companies, the competition in the IT sector is increasing. Walter (2021) in the systematic review and conceptualization of organizational agility literature showed that superior business performance is the main goal of every company in an unpredictable environment. Organizational agility (OA) is one option to thrive in this environment. Although research confirms the positive impact of OA on business performance, studies show conceptual imprecision. The conceptual clarity of OA at the organizational level facilitates the systematic development of agility research and provides guidance for practitioners. Tam Tam and Torabi (2020) in the evaluation of the organizational agility of the Moroccan Health Organization in the period of Covid-19 showed that, in fact, the agility of the organization is highly recommended as a basic basis for flexibility, innovation, speed and also competition. Yegangi et al. (2020) in reviewing the design and explanation of the structural model of the agility of the Water and Sewerage Company of Tehran Province showed that the structural dimensions of the agility of government organizations include the drivers of agility, capabilities of agility, capabilities of agility and structures of agility. Agility drivers, agility capabilities, agility enhancers and agile structures have a significant and positive effect on structural agility in water and sewage companies. In this research, based on the opinion of experts and the following model, relationships have been examined.

2. Methodology

A cross-sectional survey research plan has been used to collect the required data. The statistical population of this research is 11,000 personnel of Tehran Province Water and Sewerage Company. According to

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Morgan's table, 373 people were randomly selected. The data collection tools were questionnaires. This questionnaire includes 20 main categories and 49 question categories in the field of organizational authority, continuous improvement, organizational dynamics, organizational consequences, individual consequences, group consequences, organizational change and transformation, strengthening the strategic management of the organization, development and empowerment, organizational climate, management subsystems. organization, efficient information systems of the organization, competence of human resources, economic conditions of organization management, socio-cultural environment, global technology environment, policy environment and macro planning of organization management, political environment of organization management, agile management of organization, strategic coordination. To check the data, confirmatory factor analysis (CFA) and model fit test and structural equation model were used to test the relationships expressed in the study. The method of data analysis was using smart.PLS software.

Since the standard questionnaire was used to measure the variables, first, the desired indicators were translated and then, by referring to the elites, the necessary corrections were made. The strength of the relationship between the factor (latent variable) and the observable variable is shown by factor loading. Factor load is a value between zero and one. If the factor load is less than 0.3, the relationship is considered weak and is ignored. The factor loading between 0.3 and 0.6 is acceptable and if it is greater than 0.6, it is very desirable. In table (1), it can be seen that all the factor loadings of the variables have a value greater than 0.5 and this is confirmed. is that the reliability of the measurement model is acceptable. Then, the reliability of the research variables by Cronbach's alpha indices with a standard value above 0.7 (Cronbach, 1951) and combined reliability (CR) with a standard value above 0.7 and average variance expanded (AVE) with a standard value above 0.5 (Fornell and Locker, 1981) It was checked using Smart-PLS software. In table (3), it can be seen that the research variables have convergent reliability and validity.

Table 3. Reliability and convergent validity of research model variables

Variables	Konbakh Alpha	) CR(	AVE
Policy environment and macro planning	1.000	1.000	1.000
Continuous improvement	0.805	0.866	0.568
Economic conditions of organization management	1.000	1.000	1.000
Socio-cultural environment	1.000	1.000	1.000
Organizational discretion	0.734	0.850	0.654
Global technology environment	1.000	1.000	1.000
Strategic coordination	0.790	0.876	0.702
Organizational atmosphere	0.732	0.882	0.788
Agile organization management	1.000	1.000	1.000
Individual consequences	0.914	0.940	0.798
Group consequences	0.965	0.983	0.966
Organizational implications	0.724	0.845	0.645
Organizational dynamics	0.748	0.887	0.798
Competence of human resources	0.831	0.882	0.605
The political environment of organization management	0.755	0.891	0.803
Efficient organization information systems	0.751	0.889	0.801
Organizational change	0.780	0.901	0.820
Strengthening the strategic management of the organization	0.720	0.842	0.643
Development and empowerment	0.751	0.889	0.801
Organization management subsystems	0.899	0.931	0.772

Cronbach's alpha of all variables is greater than 0.7, so in terms of reliability, all variables are confirmed. The value of average variance extracted (AVE) is always greater than 0.5, so convergent validity is also confirmed.

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In the divergent validity part, the amount of difference between the indicators of a structure is compared with the indicators of other structures in the model. This work is calculated by comparing the square root of AVE of each construct with the values of correlation coefficients between constructs. For this, a matrix should be formed, where the values of the main diameter of the matrix are the square root of the AVE coefficients of each structure, and the lower and upper values of the main diameter are the correlation coefficients between each structure and other structures. This matrix is shown in table number (4):

Table 4- AVE root comparison matrix and correlation coefficients of constructs

1-Policy environment and macro planning	1.000								
2-Continuous improvement	0.232	0.568							
3-Economic conditions of organization management	0.130	0.105	1.000						
4-Socio-cultural environment	0.438	0.241	0.193	1.000					
5-Organizational discretion	0.209	0.259	0.136	0.152	0.654				
6-Global technology environment	0.555	0.142	0.098	0.510	0.140	1.000			
7-Strategic coordination	0.499	0.294	0.127	0.157	0.220	0.224	0.702		
8-Organizational atmosphere	0.026	0.306	0.172	0.081	0.313	0.082	0.213	0.788	
9-Agile organization management	0.354	0.480	0.190	0.275	0.428	0.247	0.363	0.691	1.000

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10-Individual consequences	0.078	0.235	0.001	0.015	0.016	0.044	0.213	0.079	0.188	0.798										
11-Group consequences	0.035	0.042	0.138	0.104	0.054	0.015	0.098	0.116	0.145	0.130	0.966									
12-Organizational implications	0.011	0.147	0.227	0.003	0.141	0.016	0.191	0.203	0.187	0.113	0.531	0.645								
13-Organizational dynamics	0.004	0.237	0.066	0.018	0.003	0.084	0.060	0.061	0.108	0.389	0.111	0.094	0.798							
14-Competence of human resources	0.231	0.403	0.225	0.288	0.045	0.138	0.008	0.227	0.408	0.198	0.060	0.085	0.201	0.605						
15-The political environment of organization management	0.076	0.271	0.166	0.086	0.304	0.115	0.174	0.438	0.424	0.074	0.108	0.527	0.061	0.288	0.803					
16-Efficient organization information systems	0.304	0.510	0.100	0.265	0.312	0.192	0.382	0.282	0.473	0.234	0.111	0.188	0.185	0.393	0.041	0.801				
17-Organizational change	0.280	0.410	0.153	0.207	0.279	0.179	0.277	0.593	0.760	0.163	0.148	0.189	0.152	0.258	0.329	0.403	0.820			
18-Strengthening the strategic management of the organization	0.079	0.190	0.098	0.102	0.543	0.108	0.050	0.194	0.256	0.003	0.092	0.014	0.044	0.443	0.478	0.223	0.123	0.643		
19-Development and empowerment	0.267	0.392	0.246	0.223	0.651	0.181	0.482	0.388	0.521	0.228	0.108	0.229	0.136	0.384	0.867	0.535	0.356	0.801		
20Organization management subsystems	0.216	0.106	0.045	0.126	0.231	0.087	0.091	0.201	0.346	0.381	0.053	0.041	0.144	0.313	0.167	0.075	0.676	0.392	0.772	

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As it is clear from the above matrix, the square root of AVE of each construct is greater than the correlation coefficients of that construct with other constructs, which indicates the acceptability of constructs' divergent validity. The results showed that the indicators related to independent and dependent variables are positive and greater than zero. It can be said that the model has acceptable quality and reliability. The overall index of fit (GOF) has also been used to check the fit of the overall model. The numerical value of the GOF index is equal to 0.584, which is a strong index and shows the overall high quality of the model.

3. Findings

The relationship between the investigated variables in each of the research hypotheses has been tested based on a causal structure with the partial least squares PLS technique. In the general model of the research which is drawn in figure (2), the measurement model (relationship of each of the observable variables to the hidden variable) and the path model (relationships of the hidden variables with each other) have been calculated. To measure the significance of relationships, the t-statistic was calculated with the bootstrapping technique, which is presented in Figure (3).

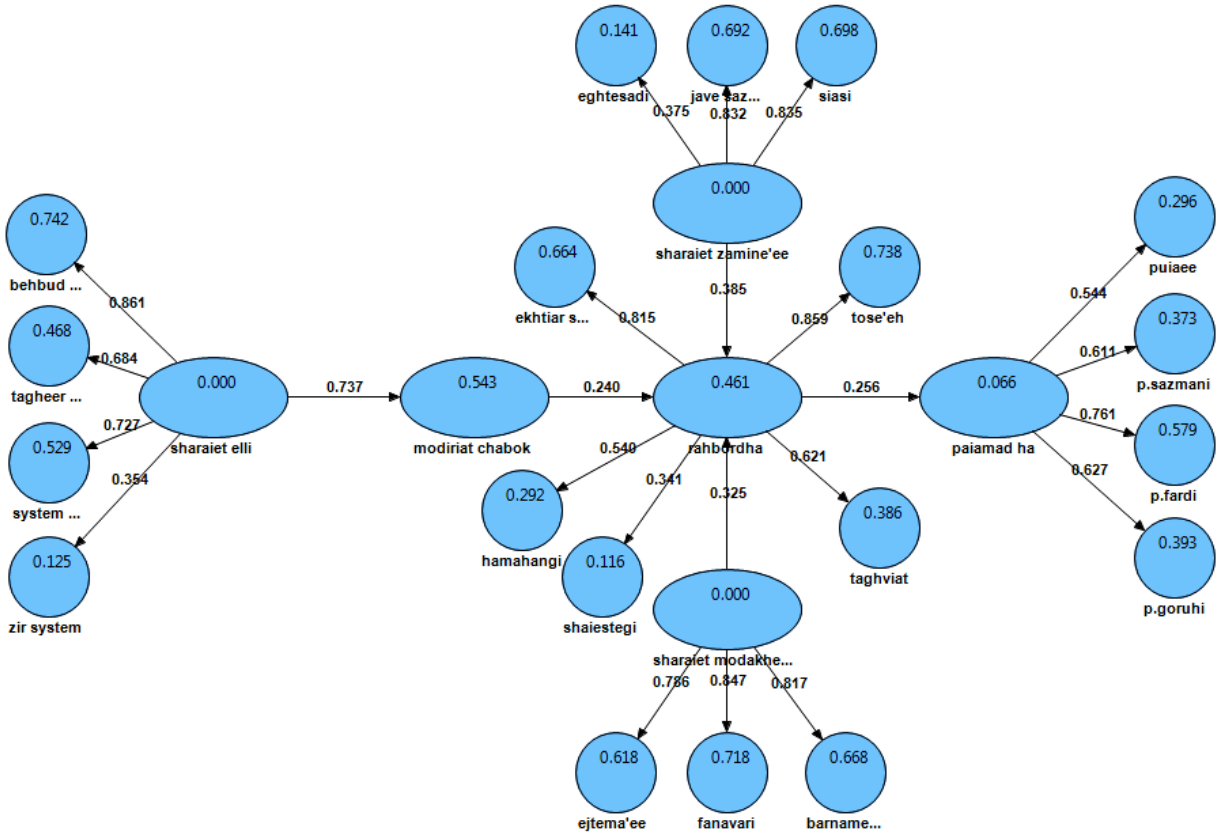

Figure 2. partial least squares technique of the overall research model

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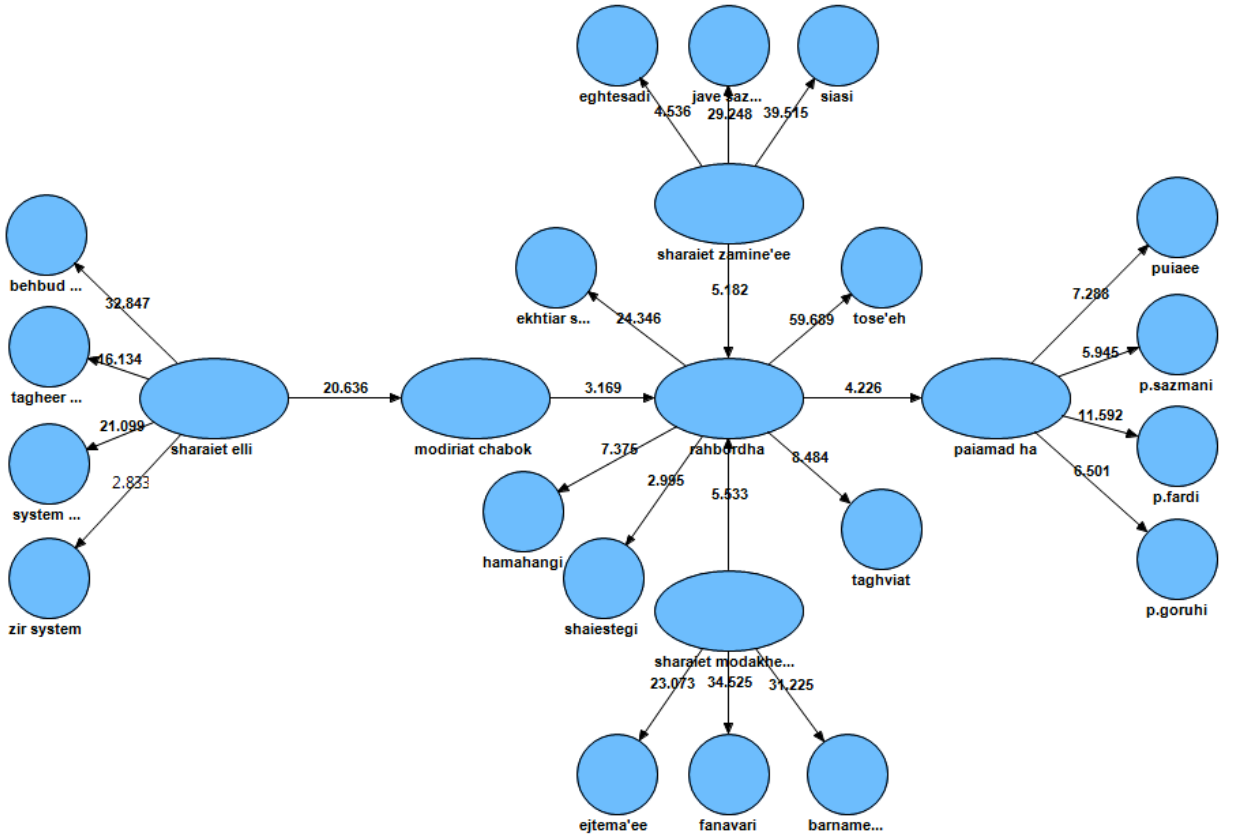

Figure 3. T-statistics of the general research model with bootstrapping technique

Investigating the effect of causal conditions on the key category of agile management of the organization: the intensity of the effect of causal conditions on the key category of agile management of the organization has been calculated as 0.737 and the probability statistic of the test has been obtained as 20.636, which is greater than the critical value of t at the %5 error level, i.e. It is 1.96 and it shows that the observed effect is significant. Therefore, with %95 certainty, the causal conditions have a positive and significant effect on the core category of agile management of the organization.

Investigating the impact of the core category of agile management of the organization on strategies: the intensity of the impact of the core category of agile management of the organization on strategies has been calculated as 0.240, and the test probability statistic has been obtained as 3.169, which is greater than the critical value of t at the %5 error level, i.e. 96. 1 and shows that the observed effect is significant. Therefore, with %95 certainty, the core category of agile management of the organization has a positive and significant impact on strategies.

Investigating the effect of background conditions on strategies: the intensity of the effect of background conditions on strategies has been calculated as 0.385 and the test probability statistic has been obtained as 5.182, which is greater than the critical value of t at the %5 error level, i.e. 1.96, and shows It indicates that the observed effect is significant. Therefore, with %95 certainty, background conditions have a positive and significant effect on strategies. Investigating the effect of intervention conditions on strategies: the intensity of the intervention conditions effect on strategies has been calculated as 0.325 and the test probability statistic has been obtained as 5.533, which is greater than the critical value of t at the %5 error level, i.e. 1.96, and shows It indicates that the observed effect is significant. Therefore, with %95 certainty, intervention conditions have a positive and significant effect on strategies.

. Investigating the effect of strategies on the results: the intensity of the effect of the strategies on the results has been calculated as 0.256 and the test probability statistic has been obtained as 4.226, which is greater

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than the critical value of t at the %5 error level, i.e. 1.96, and shows the significant observed effect. Is. Therefore, with %95 certainty, strategies have a positive and significant impact on outcomes. In addition to displaying the coefficients of direct paths, SmartPLS software also performs calculations related to the analysis of secondary paths and presents them in a table called overall effects. As a result, the value of the general and significant relationship of all variables can be observed. The results of these calculations are shown in the table below. Investigating the effect of causal conditions on strategies: the intensity of the effect of causal conditions on strategies has been calculated as 0.177, and the test probability statistic has been obtained as 2.990, which is greater than the critical value of t at the %5 error level, i.e. 1.96, and shows the effect The observed is significant. Therefore, with %95 certainty, causal conditions have a positive and significant effect on strategies. In the same way, the intensity of the effect of each variable can be examined in the model.

4. Discussion

All the variables identified in the model were significant and the relationships between endogenous and exogenous variables of the model were also significant. The results of the model show that the categories defined in the obtained paradigm model are meaningful and the variables considered in each section have a significant impact. Relationships between the variables of organizational authority, continuous improvement, organizational dynamics, organizational consequences, individual consequences, group consequences, organizational change and transformation, strengthening the organization's strategic management, development and empowerment, organizational climate, organization management subsystems, efficient organization information systems, competence Human power, economic conditions of organization management, socio-cultural environment, global technological environment, policy environment and macro planning of organization management, political environment of organization management, agile management of organization, strategic coordination has been significant.

Survival in the global and competitive business environment requires changing existing business processes in agile and customer-oriented production structures, and maximizing and optimizing business performance is a vital need to maximize usefulness and productivity, among many assets. The Institute facilitates knowledge as a critical driving force for performance goals, better business behavior and decision-making in a timely fashion. In this regard, Howson (2007) stated that access to data is less important than the way companies consume it. According to Calanton, Kavosgil and Zao, (2002) and Leal Rodríguez, Roldan, Ariza Mantes and Leal Milan (2014), the ability to innovate allows companies to respond to the changing environment faster. IT appears to be a driver for pursuing rapid and innovative actions in a volatile market (Chen et al., 2014; Lu and Ramamurthy, 2011; Popovic et al., 2018). Organizations must adapt to changes in regulations and policies. Although implementing new regulations is often costly, it can have long-term consequences and the potential for failure. The current situation seriously limits policy making. To improve this situation, policy makers and policy implementers are looking for ways to achieve higher levels of flexibility and agility in their business process management systems. Flexibility is the ability to react to changes and agility is the speed of responding to diversity and change. Both flexibility and agility are multidimensional concepts. Based on the results obtained from the research findings, the following suggestions can be made

It is suggested that appropriate training courses be considered for employees and the ability level of people is increased so that they can recognize and record new foreign knowledge in time.

It is suggested that managers provide the conditions for the integration of resources and different types of knowledge in the organization, increase the level of organizational flexibility, and managers try to establish a proper relationship with employees.

Try to increase the speed of responding to environmental needs in this organization and increase the flexibility of the organization.

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Paying attention to the components of identity formation in employees, including strengthening the personal identity of employees and explaining the missions and goals of the water and sewage company for employees.

Paying attention to coordination components, including more communication between departments within the city water and sewage company and holding unity meetings, as well as increasing the spirit of teamwork in the company.

Strengthening the intellectual, occupational, and attitudinal aspects of employees, including teaching problem solving methods, holding workshops to strengthen employees' knowledge of the company's goals, and also specializing job opportunities according to the profession and expertise of employees.

Paying attention to employee training, including leadership and management skills

Drawing the vision of the water and sewage company of the province and informing the employees

By revising the existing rules and regulations of the organization, it is possible to remove the barriers to individual and administrative success in the Water and Sewerage Company of Tehran Province.

Increasing the communication of departments within the water and sewerage company of Tehran province and holding unity meetings and also increasing the spirit of team work in the company.

Modeling successful organizations related to the field of work

Preparation of the necessary processes for theorizing and collecting theories related to improving the working conditions of the employees of the Water and Sewerage Company of Tehran province

Explaining the missions and goals of the water and sewage company of Tehran Province for the employees

Teaching employees to behave according to their profession and ethics

Encouraging employees to inject new ideas into the company

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