

## **Providing a Model for Accepting and Applying Insurance Technologies in Domestic Insurance Companies**

Mehdi Haddad Oskouee<sup>1</sup>, Samad Aali<sup>2\*</sup>, Morteza Honarmand Azimi<sup>3</sup>, Mohammad Pasban<sup>4</sup>

### **Abstract**

*The purpose of this research was to provide a model for accepting and using insurance technologies in domestic insurance companies. Therefore, in terms of the goal, it is an applied research, because in addition to the awareness and scientific aspect, it will also have a practical aspect for the relevant organizations. According to the purpose and nature, the research is a mixed method (qualitative-quantitative). The results showed that the model of acceptance and application of insurance technologies in domestic insurance companies with an emphasis on open innovation included the main components of knowledge management, practical factors, behavioral factors, infrastructure, technology perception and management factors. Based on the research findings, it can be seen that the first level includes practical factors, knowledge management, technology perception, managerial factors, the second level includes behavioral factors, and the third level includes infrastructure. Also, based on the findings, it can be seen that practical factors, knowledge management, technology perception, managerial factors are linked factors, behavioral factors are dependent factors, and infrastructure is an influencing factor.*

**Keywords:** *technology adoption, insurance technologies, domestic insurance companies.*

### **Introduction**

The insurance industry, as one of the oldest industries in the world, according to the predictions of experts in this field, will undergo extensive changes in the level of information technology and new services by 2030. Insurance technology or insurtech is the little brother of fintech (innovative use of technology in providing financial services); But unlike fintechs, less attention has been paid to insurtech. One of the main business components of the insurance industry is risk management; But the decision-makers of the insurance industry have been cautious about the introduction of new technologies called insurtech. This has caused the services of innovative insurance technologies to not grow properly compared to other fintech areas (Kelley and Wang, 2021). The emergence of insurance technology companies through the easy access of digital technologies is changing the entire insurance industry and ushering in a new era of business models. Insurance technology companies are challenging the dominant position of traditional

---

<sup>1</sup> PhD student, Department of Business Administration, Tabriz Branch, Islamic Azad University, Tabriz, Iran  
m.hadadeskouee@gmail.com; <https://orcid.org/0009-0002-8903-9085>

<sup>2</sup> Associate Professor of Department of Business Administration, Tabriz Branch, Islamic Azad University, Tabriz, Iran  
Samad.aali@iaut.ac.ir; <https://orcid.org/0000-0003-3890-2192>

<sup>3</sup> Assistant Professor, Department of Industrial Management, Tabriz Branch, Islamic Azad University, Tabriz, Iran  
Honarmand@iaut.ac.ir; <https://orcid.org/0000-0001-9695-5191>

<sup>4</sup> Assistant Professor, Department of Industrial Management, Tabriz Branch, Islamic Azad University, Tabriz, Iran  
Iranpasebani@iaut.ac.ir; <https://orcid.org/0000-0001-5283-8508>

insurance institutions with digital technologies such as big data analytics, robo-advisors and mobile distribution models; Therefore, at present, the application of insurance technologies and the creation of digital transformation in the insurance industry and the use of innovative models as a strategic approach have not been accepted among insurance companies (Bahrami et al., 2022). On the other hand, the acceptance and application of such emerging technologies in different sectors depends on different factors and various models have been presented in this field. Technology acceptance models mainly focus on behavioral intention and actual behavior. Behavioral intention is the most important determining factor of behavior (Shouqi Agcheh Mashhad et al., 2023). For example, the technology acceptance model is a model to determine how a person's beliefs and values can influence his intention to use technology. Although this topic was initially used in the field of business, since its development, the technology acceptance model has been widely used and due to its application in a wide range of fields including business and education ( Nurse-Clarke and Joseph, 2022). Acceptance of technology is a multi-dimensional phenomenon that includes a wide range of key variables such as perceptions, beliefs, attitudes and characteristics of people as well as their involvement with technology. Various theories and models have been tested and modified in the field of technology acceptance, most of which originated from information systems and psychological and sociological approaches. These models help us to understand the factors influencing the adoption of technology by organizations and managers and the relationships between them. Also, many researchers believe that the acceptance process affects the successful use of technology in the organization (Nuri et al., 2017). In order to maintain their market and develop services, economic enterprises, including insurtech insurance companies, must seek to earn profits, and earning profits depends on attracting and retaining customers. Using new and diverse services in order to satisfy and maintain the market of more customers can be effective in attracting and ultimately increasing people's trust and investment in insurance. With the increasing growth of information and communication technology, fundamental changes have been made in the business of companies. Insurance companies are no exception to this rule and have undergone major changes in management methods and processes and system-oriented and information-based businesses (Akharti, 2020). In order to maintain their market and develop services, economic enterprises, including insurtech insurance companies, must seek to earn profits, and earning profits depends on attracting and retaining customers. Using new and diverse services in order to satisfy and maintain the market of more customers can be effective in attracting and ultimately increasing people's trust and investment in insurance. With the increasing growth of information and communication technology, fundamental changes have been made in the business of companies. Insurance companies are no exception to this rule and have undergone major changes in management methods and processes and system-oriented and information-based businesses (Akharti, 2020). In recent years, the presence of startups and insurtechs that have entered the field of selling insurance policies has brought some changes in the field of insurance sales. in this industry. It is also possible to use their potential and capacities in a practical way so that by means of insurtechs, it is possible to create value by creating transformation or solving problems along the value chain through the application of technology and with a customer-oriented approach (Bahadri et al, 2017). Today's customers want mobile apps, flexible call centers, fast claims response, competitive pricing, and easy-to-use apps. To respond to these challenges, insurers have turned to digital infrastructure that empowers them in real-time processes and interactions through new business models. Investing in personalization-based technology, workforce innovation, optimal business operations management, and risk management capabilities will enable companies to improve revenue in the era of digital transformation. Usually, the market waits for a pioneer to start working, in this situation companies have the opportunity to take advantage of the situation and take the leadership of the market and gain a sustainable competitive advantage (Qarakhani and Porfashmi, 2022). Therefore, considering the role of innovations and especially open innovations that create this opportunity for different insurance companies to be able to

use technological advances at different levels, the researcher's main concern is that the most important factors affecting What is the application and adoption of insurance technologies (Insurtechs) in domestic insurance companies and what is the role of open innovations in this regard? To answer these questions, the aim of this study is to provide a model for the adoption and application of insurance technologies in domestic insurance companies.

## Methodology

According to the purpose and nature of this research, in terms of method, it was a qualitative research that was conducted by interviewing research experts. The study approach has been grounded theory. The statistical population was university professors in the field of insurance and senior managers of insurance companies, beneficiaries and policyholders. In this section, sampling was done theoretically. In theoretical sampling, events are sampled, not necessarily people. If people are also referred to, the main and key goal is to explore events. Although there is no specific rule for sample size in qualitative strategy, 6 to 8 units for homogeneous groups and 12 to 20 units for heterogeneous groups are suggested. The interviews continued until theoretical saturation was ensured. In this study, saturation happened with 12 experts (university professors in the field of insurance and senior managers of insurance companies, beneficiaries and policy holders).

Sampling was done in the framework of the logic of the qualitative method and purposefully. Two methods of targeted and snowball sampling were used in sampling. Usually, in qualitative researches, in order to obtain the most information, purpose-based sampling is used, so the researcher chose the participants who were so-called "rich in information". It means that based on the principle of qualitative research, samples were selected that presented a strong picture of the phenomenon under study. The participants were selected based on the sampling method of university professors in the field of management and senior managers of construction companies who were also willing to be interviewed. The basis of the work of the qualitative part of the study was the ground theory method (foundation data theory) and three types of open, central and selective coding, which was done with MAXQDA software. Grounded data theory (also known as data-driven theory, grounded theory, and grounded theory) is a general, inductive, and interpretive research method developed in 1967 by Barney Glaser and Anselm Strauss.

## Results

The initial coding results are shown in Table 1 .As you can see, the primary codes are placed in larger categories and then they formed the main factors.

Table 1: Open coding, categorical and deletion of research factors

Axial coding	Categorical coding	Primary codes	Codes of interviewees	Row
Behavioral factors	Employee behavior	Staff training	Q1,Q11,Q12	1
		Individual ability	Q2	2
		Correct management principles	Q6,Q7,Q12	3
		Determining and implementing administrative policies	Q1,Q11,Q12	4
		brainstorming sessions	Q2	5

		Determining accurate monitoring criteria	Q6,Q7,Q12	6
	The behavior of managers	Clarity of organizational goals	Q3	7
		Creating technological culture	Q7	8
		data transfer	Q1,Q12	9
		Management levels relationships through technology	Q2	10
		Communication between managers and customers	Q3	11
		Communication between managers and employees	Q1,Q11,Q12	12
		Participatory Management	Q2	13
		Customers behavior	Acceptance benefits	Q6,Q7,Q12
	Penetration power		Q12	15
	Reviewing relationships		Q11,Q12	16
	Better information		Q2,Q7,Q12	17
	Get customer information		Q3	18
	Database development		Q7	19
	Shareholder behavior	Information and communication systems	Q1,Q12	20
		Publication of financial documents	Q2	21
		Providing technology-based reports	Q3	22
		Evaluation of shareholders	Q3	23
		Creation of electronic identity of shareholders	Q7	24
Management factors	Technological organization	the budget	Q1,Q12	25
		Costs	Q2	26
		Business Intelligence	Q3	27
		reduction in costs	Q2,Q7,Q12	28
		Increase efficiency	Q1,Q2,Q3,Q7,Q9	29
		Accurate and fast access to information	Q5,Q7,Q8	30

		Organizational Agility	Q9	31
Development of technological indicators		Innovative service quality	Q3,Q11,Q12	32
		Control mechanisms	Q3,Q4,Q5,Q6, Q7,Q8,Q11	33
		Proper functioning of the organization	Q4,Q11	34
		Service development	Q1,Q4,Q5,Q8,Q11,Q12	35
		Development of technology applications	Q2,Q3,Q5,Q7,Q8,Q9, Q10,Q11	36
		Functional principles	Q1,Q10,Q12	37
		Turning innovation into opportunity	Q1,Q4,Q5,Q8,Q9,Q10	38
		Technology-based feedback		Collaboration networks
Negative effects of insurance technologies	Q7			40
Positive effects in clarification	Q2			41
New customers	Q1,Q11			42
Simplify access	Q11,Q12			43
Innovative management		Innovative opportunities	Q2,Q7,Q12	44
		Use of internal resources	Q2	45
		Innovations outside the organization	Q3,Q4,Q5,Q6, Q7,Q8,Q11	46
		Evaluation system	Q4,Q11	47
		Innovation-based management	Q1,Q4,Q5,Q8,Q11,Q12,	48
		Promote innovation	Q2,Q3,Q5,Q7,Q8,Q9, Q10,Q11	49
Technology perception	Understanding technology	Identification of applied technology	Q1,Q10,Q12	50
		Perceived risk of insurance technologies	Q7	51
		the trust	Q1	52
		Expected performance	Q1,Q2,Q5,Q6, Q10,Q11,Q12	53
		Facilitate affairs	Q1,Q2,Q5,Q10,Q12	54
		The usefulness of insurance technologies	Q1,Q2,Q3	55

		The importance of technology in insurance	Q1,Q2,Q5,Q6,Q9,Q10	56
		Information dissemination technologies	Q1,Q4,Q5,Q6,Q7,Q8	57
		Presentation technologies of products and services	Q2,Q7,Q12	58
		Access to technology	Q1	59
	Technology attitude	Awareness of insurance customers	Q1,Q11	60
		Legal and legal factors	Q11,Q12	61
		Advertising	Q2,Q7,Q12	62
		Community awareness	Q1,Q2,Q3	63
		Positive attitude to the company	Q1,Q2,Q5,Q6,Q9,Q10	64
		Moral Values	Q1,Q4,Q5,Q6,Q7,Q8	65
		More use of insurance services	Q9,Q11,Q12	66
	Accepting the use of technology	Budget and cost control	Q4,Q5,Q6,Q9	67
		Support	Q3	68
		Moral cases	Q1,Q11	69
		Purchase of services	Q11,Q12	70
		Creating new insurance needs	Q2,Q7,Q12	71
		Development of previous purchases	Q2	72
		Use of insurance applications	Q1,Q5	73
		Electronic acceptance	Q1,Q11	74
knowledge management	knowledge transfer	Knowledge transfer from outside the organization	Q1,Q2,Q3,Q4,Q9	75
		Transferring information to customers	Q1,Q7,Q8	76
		Knowledge transfer in organizational units	Q7	77
		Technology and knowledge education	Q9,Q12	78
		Practical training for managers	Q1,Q4,Q5,Q6,Q10,Q11,Q12	79

		Integration of work units	Q1,Q2,Q4,Q6,Q7,Q8, Q10,Q12	80	
		Knowledge exchange at organizational levels	Q1,Q11	81	
	science development	Receiving and disseminating knowledge	Q11,Q12	82	
		Change of rules and regulations	Q2,Q7,Q12	83	
		New insurance services	Q1	84	
		Completion of applied knowledge	Q3,Q4,Q7,Q10	85	
		Technology performance	Q1,Q3,Q5	86	
		Organizational goals	Q1,Q5,Q10	87	
		Proliferation of knowledge in the organization	Q1,Q2,Q3,Q10	88	
		Creation of insurance publications	Q2,Q7,Q12	89	
		Creating insurance related bulletins	Q1	90	
		Publication of necessary financial documents	Q3,Q6,Q9	91	
		Dissemination of stock status information	Q1,Q2,Q7,Q12	92	
		get knowledge	Use of research teams	Q1,Q2,Q5,Q6,Q9	93
			Applied research	Q1	94
	Constructive interaction with the outside environment		Q9	95	
	Environmental pressures		Q1,Q2,Q5	96	
	Imposed and tasteful comments		Q3,Q4	97	
	Resolutions of the government and parliament		Q5	98	
	Case mining		Q2	99	
infrastructure	Technology	Insurance applications	Q7,Q12	100	
		security	Q9	101	
		Information security	Q1,Q2,Q5,Q6,Q9,Q12	102	
		User safety	Q6,Q8,Q9,Q10	103	

		The size of the insurance company	Q2	104
		Variety of insurance services	Q1	105
		Adaptation of technology	Q2,Q5,Q8,Q11	106
	Human Factors	Moral Values	Q9,Q10	107
		organizational climate	Q1,Q2,Q3,Q4,Q5,Q12	108
		Common mistakes	Q1,Q3,Q5,Q6,Q7,Q9	109
		Technology expertise	Q2	110
		Professional skills	Q2,Q7,Q12	111
		Employee effectiveness	Q1	112
		expectations	Q3,Q6,Q9	113
		Job related knowledge	Q1,Q2,Q7,Q12	114
		Career rotation	Q9,Q12	115
	Facilities and equipment	Hardware equipment	Q2	116
		Software equipment	Q3,Q4,Q5	117
		applicability	Q1,Q11,Q12	118
		Personnel expertise	Q5	119
		Support expertise	Q6,Q7,Q12	120
		Additional facilities	Q12	121
		Organization Structure	Q1,Q2,Q3,Q4,Q5,Q7, Q10,Q11,Q12	122
		Organizational complexities	Q1,Q4,Q5,Q6,Q7,Q8, Q10,Q12	123
	The possibility of upgrading	Q11,Q12	124	
Functional factors	Skill	Technology-based behavior	Q9	125
		social responsibility	Q6,Q7,Q12	126
		Virtual community	Q12,Q15,Q16,Q17	127
		Virtual media advertising	Q2,Q7,Q12	128
		SEO knowledge	Q1	129
		Content production skills in insurance	Q3,Q6,Q9	130
		Manpower skills	Q1,Q2,Q7,Q12	131



		Use of applications	Q2	132
Employee effectiveness		Technological culture	Q9	133
		Application of modern knowledge	Q1,Q2,Q5,Q6,Q9	134
		Documentation of reports	Q5,Q6,Q7,Q12	135
		Development of assessments	Q9,Q12	136
		Development of employee activities	Q1,Q4,Q5,Q8,Q11,Q12	137
		Increasing the range of activities	Q1,Q3,Q5,Q7,Q8,Q9	138
		Developing employee relations	Q10,Q11,Q12	139
		Increasing efficiency in evaluation	Q1,Q3,Q5,Q8,Q9,Q10	140
	Organization Structure		Accurate notification of rules and regulations	Q6,Q7,Q8,Q11
		create database	Q9,Q11	142
		Evaluation system	Q2	143
		Opportunities	Q2	144
		Threats of insurance technologies	Q9	145
		Risk Assessment	Q1,Q2,Q3	146
connections		Communication with the media	Q1,Q2,Q5,Q6,Q9,Q10	147
		Communication with shareholders	Q1,Q4,Q5,Q6,Q7,Q8,Q10,Q11	148
		Longitudinal correlation	Q2,Q7,Q12	149
		communication network	Q1	150

According to the findings of the research, it can be seen that the model of acceptance and application of insurance technologies in domestic insurance companies with an emphasis on open innovations has 150 open codes, 21 categorical codes and 6 final core codes, which are presented below

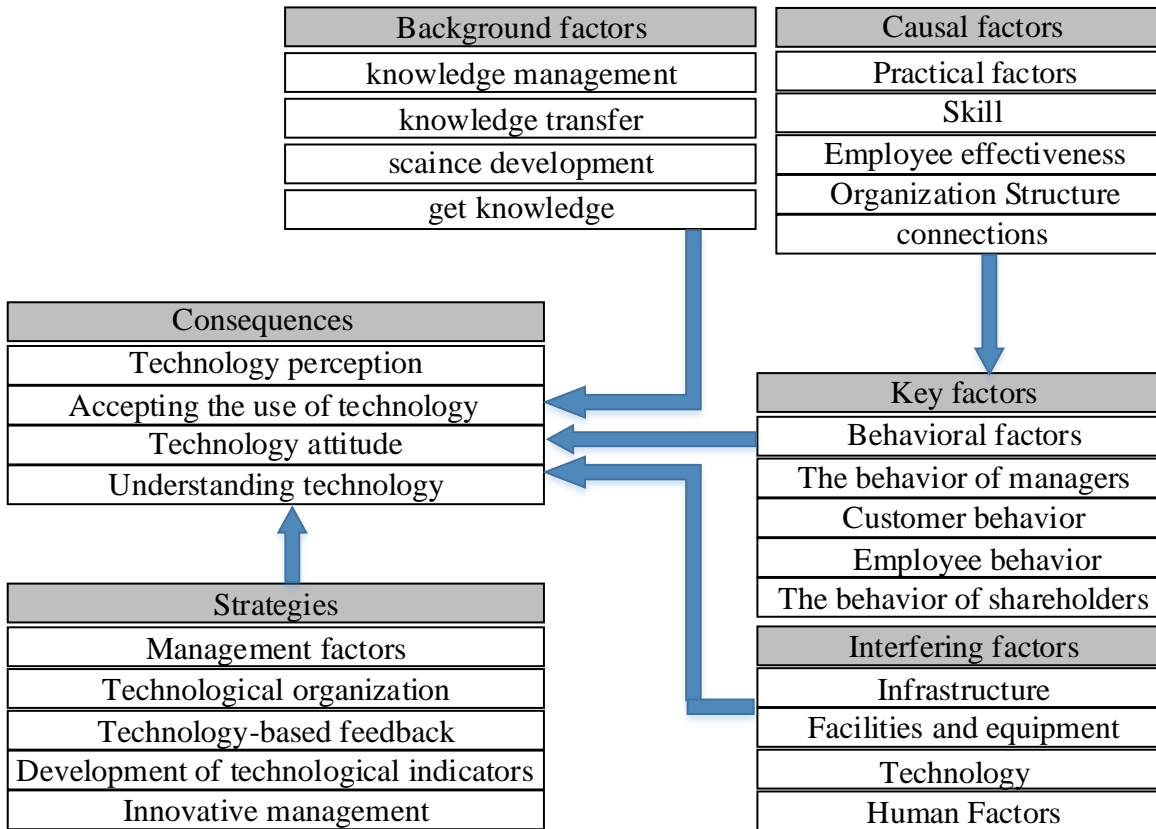


Figure 1: Adoption and application model of insurance technologies in domestic insurance companies with emphasis on open innovation

ISM\_DIMATEL Method

The identified final factors of the model of acceptance and use of insurance technologies in domestic insurance companies with an emphasis on open innovations after the stage of ground theory and data analysis, finally 6 factors as the final factors of the model of acceptance and use of insurance technologies in insurance companies Internal with emphasis on open innovations were identified as the main components of the research and entered this phase of the research. Determining the intensity and strength of the direct effects of obstacles on each other. This strength of effects is done through pairwise comparisons between obstacles. The process of determining the intensity of the effect is based on the subjective opinions and judgments of experts and is based on fuzzy linguistic scales. In this context, the relevant questionnaire was provided to the experts so that based on the 5 available values, one of them was selected as the intensity of the effect among the components of the model. The purpose of this section is to collect the opinions of experts in the field of the intensity of the influence of factors on each other, to aggregate these opinions and finally to obtain the fuzzy matrix of experts' judgment. After gathering the experts' opinions, these opinions (fuzzy matrices) are used using the fuzzy geometric mean formula and under the form of a judgment matrix.

Table 2: De-phased matrix of experts' opinions

	Function al factors	knowledge managem ent	Behavior al factors	Infrastructu re	Technolo gy perceptio n	Managem ent factors
Functional factors	1/60	1/66	1/37	1/45	1/63	1/72

knowledge management	1/77	1/53	1/37	1/42	1/57	1/66
Behavioral factors	1/57	1/59	1/16	1/34	1/46	1/50
Infrastructure	1/71	1/68	1/43	1/30	1/55	1/68
Technology perception	1/72	1/61	1/30	1/34	1/40	1/65
Management factors	1/79	1/78	1/37	1/44	1/64	1/56

Calculating the threshold limit and forming the occurrence matrix. After dephasing all the fuzzy numbers in the normal matrix and obtaining the dephased matrix, a threshold limit is obtained through Miankin calculation of all the elements and regions in the matrix. Based on the calculations, the arithmetic mean of the above matrix is equal to 0/8917. In order to form the occurrence matrix, we compare each of the regions in the dephased judgment matrix with the specified threshold value. If the target number is greater than or equal to this threshold limit, the number 1 is placed in the corresponding number in the occurrence matrix, otherwise, the number is zero. Based on this approach, the occurrence matrix of interpretative structural modeling method is a binary matrix (zero and one). This matrix is the gateway to the final part and forming the accessibility matrix.

formation of input, output, joint and leveling sets; In this step, using the final accessibility matrix, the set of input, output and joint is obtained. The input set for each factor is the column of that factor and the output set for each factor is the row of that factor. In other words, the set of factors influencing the factor of the output set and the set of factors affecting the factor form the input set. This step is implemented based on the explanations presented in the third chapter.

Table 3: Leveling of components identified in the research

Row	Agents	Entrance	output	Common	level
1	Functional factors	1,2,3,4,5,6	1,2,5,6	1,2,5,6	First level
2	knowledge management	1,2,3,4,5,6	1,2,5,6	1,2,5,6	First level
3	Behavioral factors	3	1,2,3	3	Second level
4	Infrastructure	4	1,2,4,5,6	4	Third level
5	Technology perception	1,2,4,5,6	1,2,5,6	1,2,5,6	First level
6	Management factors	1,2,4,5,6	1,2,5,6	1,2,5,6	First level

Based on the research findings, it can be seen that the first level includes practical factors, knowledge management, technology perception, managerial factors, the second level includes behavioral factors, and the third level includes infrastructure.

After performing the calculations related to the fuzzy interpretive structural modeling and obtaining the final access matrix and the leveled model of obstacles in the context of the level of effectiveness of these obstacles and the direct and indirect effects between them, the next step as a complementary step for psychological structural modeling, The

classification of factors is in the form of their effect and their internal effectiveness on each other. The purpose of this analysis is to draw a graph of penetration power - dependence of factors, based on the final accessibility matrix and its analysis. At this stage, the factors are classified into four groups: autonomous, linked, dependent, and intrusive factors. As mentioned in the third chapter, the factors are classified in the form of these four categories according to the level of their effectiveness and effectiveness, and in this way, a more comprehensive view of the direct and indirect internal effects of these factors can be obtained. For this purpose, in this analysis, the final accessibility matrix, which includes the direct and indirect effects of obstacles on each other, has been used.

In the following, the factors based on their power of influence and power of dependence can be classified into four categories: autonomous, dependent, connected and influential. Based on the results of the Meek Meek analysis, the factors can be divided into four categories, which are presented in the following table.

Table 4: Classification of factors based on Mick Mack analysis

Agents	Autonomous	penetrating	Dependent	linked
Functional factors				*
knowledge management				*
Behavioral factors			*	
Infrastructure		*		
Technology perception				*
Management factors				*

Based on the findings, it can be seen that practical factors, knowledge management, technology perception, managerial factors are linked factors, behavioral factors are dependent factors, and infrastructure is an influencing factor.

## Discussion

The results showed that the model of acceptance and application of insurance technologies in domestic insurance companies included the main components of knowledge management, practical factors, behavioral factors, infrastructure, technology perception and management factors. These results were in agreement with the findings of Sionani et al. (2023), Wang (2021) and Kuitanovich (2021). Acceptance of technology is a multi-dimensional phenomenon that includes a wide range of key variables such as perceptions, beliefs, attitudes and characteristics of people as well as their involvement with technology. Some researchers believe that the attitude of organizations and managers to accept new technology in the organization has a vital effect on its practical acceptance. Many studies conducted in this field have provided comprehensive theoretical foundations using the interpretation of determining factors and user acceptance mechanisms. Also, the results of research in this field show the important role of differences in the type of values, desires, attitudes, personal perspectives and intellectual preferences, as well as the power of variability on the process of accepting new technology (Vatankhah and Zahorian, 2015). For insurance companies in the global arena, the concepts of digital transformation and transformational innovation have gradually lost their ambiguity, so that today these concepts have become high-priority

actions and are on the agenda of senior leaders. New competitive threats, continuous cost pressures, old technologies, increasing regulatory requirements and unfavorable financial performance are among the drivers that make significant changes and new business models inevitable. Insurance companies that are rapidly developing in the innovative economy are facing problems that the traditional classical knowledge and paradigm cannot solve (Kuzieva, 2020). In this way, it can be acknowledged that today the practical use of processes related to marketing, advertising, sales and business intelligence has become so important that its role in various consumer and non-consumer industries, especially in the insurance industry, is also examined by experts. Digital transformation in the insurance industry is possible with insurance technologies. In fact, insurance technology brings about the adaptation of the traditional structure of the insurance industry with the digital age, and this transformation takes place in the digital age with new insurance companies. Insurance technology is a major trend in the insurance industry that will revolutionize this industry. Insurance technology will create a new type of structure or ecosystem in the insurance industry. The most important type of insurance technology, blockchain is introduced due to the development of smart contracts, and after that, big data mining and the Internet of Things can bring high transparency and accuracy to this industry. Insuretech helps customers to use insurance services outside of time and place limitations with the help of tools such as smart mobile phones. Since insurance work in general has been risk management all over the world, the managers of this field are more interested in the introduction of technological innovations under the name of Insuretech. have also acted more cautiously, and this is the reason why the provision of innovative technological services in the field of insurance has not grown significantly compared to other fintech fields (Capillo, 2018). On the other hand, innovation is a fundamental factor in creating competition at the global level, which leads to organizational growth. It holds future success and is like the engine that allows companies to enjoy continued efficiency in the global economy. For this reason, innovation is a very important subject in the study of economics, business, technology, sociology and engineering. Also, the ability of companies to discover and exploit foreign innovations, capabilities and business opportunities that have the potential to be commercialized and are in line with the development strategies of companies are of great importance (Porsadeq, 2017).

The findings revealed that the first level includes practical factors, knowledge management, technology perception, managerial factors, the second level includes behavioral factors, and the third level includes infrastructure. Also, based on the findings, it can be seen that practical factors, knowledge management, technology perception, managerial factors are linked factors, behavioral factors are dependent factors, and infrastructure is an influencing factor. The same results were obtained by Bahrami et al. (2018) and Huang et al. (2022). Insurance technologies not only have advantages such as improving efficiency and effectiveness, developing and expanding products and services according to the daily needs of insurers, reducing costs and increasing customer loyalty, and as a result, creating a long-term relationship with them, but also using the latest technologies and The extensive implementation of big data analysis has been able to reduce risk and lead to timely and better detection of frauds in the insurance industry, which has been one of the main challenges of this industry for a long time (Parsamanesh et al., 2021). Insurance companies around the world, and consequently the country's insurance industry, are increasingly looking to use technology and insurance collaboration because they are looking for new ways to solve business challenges, innovate and create new opportunities. They are with startups to provide new insurance services to their customers.

## References

- Akharti, aziz. (2020). Insurance technology (Insure Tech) and its impact on the insurance industry and a sample survey of several companies, the first national conference of interdisciplinary research in management and humanities, Tehran, pp. 1-15.
- Bahari, Mohammad Karim; Mehrabian, Fardin; Timurzadeh, Ehsan; Rwangard, Ramin; Yacoubi, Maryam; Hosseini, Seyyed Mustafa. (2017). Determining the influencing factors on the optimal use of information technology in the health insurance industry: a case study in Gilan province in 2015, *Military Medicine Journal*, year 19, number 6, pp. 616-623.
- Bahrami, Amir., Haghigi Kafash, Mehdi., Haji Karimi, Babak. (2022). Providing an insurance technology marketing model (InsureTech) for a start-up business in the insurance industry. *Scientific Quarterly of Modern Marketing Research*, Year 12, Issue 1, Serial (44), pp. 197-216.
- Huang, Z.; Savita, K. S., Zhong-ji, J. (2022). The Business Intelligence impact on the financial performance of start-ups, *Information Processing & Management*, 59(1), 102-761.
- Kelley, C., & Wang, K. (2021). *InsurTech: A guide for the actuarial community*. Society of Actuaries.
- Kuzieva, N. (2020). Kuzieva Nargiza Ramazanovna Business Processes In The Insurance System And Their Features. *Архив научных исследований*, (24).
- Nurse-Clarke, Natasha, Joseph, Mary, (2022), An exploration of technology acceptance among nursing faculty teaching online for the first time at the onset of the COVID-19 pandemic, *Journal of Professional Nursing*, 41, 8-18.
- Parsamenesh, Ali., Mehrani, Hormoz., Vahabzadeh Manshi, Shadan, Hasanmoradi, Narges. (2021). Designing an insurance technology acceptance model (Insurtech) with the structural-interpretive modeling method. *Bimah Scientific Research Quarterly*, 36th year, number 4, serial number 143, pages 101-134.
- Poursadegh, Nasser;(2017) "Identification and prioritization of factors affecting open innovation in the insurance industry (case study: an insurance company)", *Insurance Research Journal*, Volume 33, Number 2, pp. 65-84.
- Qarakhani, Mohsen; Porfashmi, Seyyed Umm Salma. (2022). Investigating factors affecting the adoption of Internet of Things in Iran's insurance industry, *Scientific-Research Quarterly Journal of Insurance Research*, Year 37, Number 1, pp. 105-144.
- Shoghi Agjah, Mashhad, Fatemeh. Farrokhbakht Fomeni, Alireza. Qolipour Soleimani, Ali. (2023). Providing a model for accepting new technology and innovations in the field of renewable energy by Iranian consumers with an economic, financial and social approach based on the foundation's data theory. *Financial Economics Quarterly*, Volume 17. Number 1 (Serial 62), Pages 123-146.
- Sivanani, Haider., Namamian, Farshid., Qobadi, Tohfe., Asghari Sarem, Ali., Islambolchi, Alireza. (2023). Marketing modeling based on information technology in the insurance industry (case study: Iran Insurance Company). *Scientific Quarterly Journal of Advertising and Sales Management*, Volume 4, Number 4, (series 15).
- Taqwa, Mohammad Reza and Nouri, Elaha. (2016). *Business intelligence (concepts and system design and development)*. Tehran: Allameh Tabatabai University.
- Wang, Q. (2021). THE IMPACT OF INSURTECH ON CHINESE INSURANCE INDUSTRY. *Procedia Computer Science*, 187, 30-35.
- Wang, Q. (2021). The impact of insurtech on Chinese insurance industry. *Procedia Computer Science*, 187: 30-35.