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The Mediating Role of IoT Awareness and Artificial Intelligence Anxiety on Resistance to Organizational Change

IoT Farkındalığının Örgütsel Değişime Direnç Üzerinde Yapay Zekâ Kaygısının Aracı Rolü

Şükrü Mustafa KAYA[a] **Vildan BAYRAM**[b]

[a] Istanbul Aydın University, Department of Computer Technologies, Blockchain Application Research Centre, Istanbul,Turkey
ORCID: 0000-0003-2710-0063, mustafakaya@aydin.edu.tr

[b] Istanbul Aydın University, Anadolu Bil Vocational School, Business Management, Istanbul, Turkey,
ORCID: 0000-0001-7526-6485, vildanbayram@aydin.edu.tr

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ABSTRACT

Purpose: This study aims to examine the relationship between Internet of Things (IoT) awareness and resistance to organizational change in businesses, and to investigate the potential mediating role of artificial intelligence (AI) anxiety in this relationship.

Method: The research was conducted using a quantitative research design. Data were collected through a survey administered to 427 participants working in the energy sector between November 15, 2024, and December 5, 2024, using a convenience sampling method. The collected data were analyzed using SPSS and AMOS statistical software, and structural equation modeling was employed.

Findings: The results indicate that IoT awareness has a negative and significant effect on AI anxiety ($\beta = -0.23$; $t = -4.19$; $p < 0.05$). AI anxiety was found to have a positive and significant effect on resistance to organizational change ($\beta = 0.38$; $t = 6.80$; $p < 0.05$). Additionally, IoT awareness has a negative and significant effect on resistance to organizational change ($\beta = -0.44$; $t = -7.94$; $p < 0.05$). Mediation analysis revealed that AI anxiety plays a significant mediating role in the relationship between IoT awareness and resistance to organizational change (IE = -0.08; SBT = -3.33; $p < 0.05$). The findings demonstrate that increasing IoT awareness reduces resistance to organizational change while also contributing to a decrease in AI anxiety.

Original Contribution: This study contributes to the literature by examining the relationships among IoT awareness, AI anxiety, and resistance to organizational change within an integrated conceptual framework. By revealing the mediating role of AI anxiety, the study highlights the importance of human and psychological factors in the adoption of IoT technologies and digital transformation processes within organizations.

Anahtar Kelimeler:
Nesnelerin İnterneti
Değişime Direnç
Yapay Zekâ Kaygısı
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ÖZ

Amaç: Bu çalışmanın amacı, işletmelerde Nesnelerin İnterneti (IoT) farkındalığının örgütsel değişime direnç üzerindeki etkisini incelemek ve bu ilişkide yapay zekâ (YZ) kaygısının olası aracılık rolünü ortaya koymaktır.

Yöntem: Araştırma, nicel araştırma yaklaşımı çerçevesinde gerçekleştirilmiştir. Veri toplama sürecinde enerji sektöründe faaliyet gösteren çalışanlardan kolayda örnekleme yöntemiyle 15.11.2024–05.12.2024 tarihleri arasında 427 katılımcıya anket uygulanmıştır. Elde edilen verilerin analizinde SPSS ve AMOS istatistik paket programları kullanılmış ve yapısal eşitlik modellemesi uygulanmıştır.

Bulgular: Analiz sonuçları, IoT farkındalığının yapay zekâ kaygısı üzerinde negatif yönlü ve anlamlı bir etkisinin olduğunu göstermektedir ($\beta = -0{,}23$; $t = -4{,}19$; $p < 0{,}05$). Yapay zekâ kaygısının örgütsel değişime direnç üzerinde pozitif yönlü ve anlamlı bir etkisi olduğu tespit edilmiştir ($\beta = 0{,}38$; $t = 6{,}80$; $p < 0{,}05$). Ayrıca IoT farkındalığının örgütsel değişime direnç üzerinde negatif yönlü ve anlamlı bir etkisinin bulunduğu belirlenmiştir ($\beta = -0{,}44$; $t = -7{,}94$; $p < 0{,}05$). Yapılan aracılık analizi sonuçları, IoT farkındalığı ile örgütsel değişime direnç arasındaki ilişkide yapay zekâ kaygısının anlamlı bir aracılık rolü üstlendiğini göstermektedir (IE = -0,08; SBT = -3,33; $p < 0{,}05$). Bulgular, IoT farkındalığının örgütsel değişime direnci azalttığını ve bu etkinin aynı zamanda yapay zekâ kaygısının azalmasına katkı sağladığını ortaya koymaktadır.

Özgün Katkı: Bu çalışma, IoT farkındalığı, yapay zekâ kaygısı ve örgütsel değişime direnç arasındaki ilişkileri bütüncül bir model çerçevesinde inceleyerek literatüre katkı sunmaktadır. Özellikle yapay zekâ kaygısının aracılık rolünün ortaya konulması, işletmelerin dijital dönüşüm ve IoT teknolojilerinin benimsenmesi süreçlerinde insan faktörünün önemini vurgulayan önemli bulgular sağlamaktadır.

ETİK ONAY: Bu araştırma için İstanbul Aydın Üniversitesi Etik Kurulu'ndan 14/11/2024 tarihli ve 2024 nolu toplantısında 12 sıra sayılı kararı ile izin alınmıştır.

1. INTRODUCTION

The Internet of Things (IoT), which plays a leading role in transferring the physical world to the digital world in the age of digital transformation, increases operational efficiency and competitive advantage for businesses. IoT has the potential to radically change organizational structures with its contributions to digitalization. However, in order to accept that IoT is a fact of life, the process should not be considered as only technical, it is also necessary to transform human behaviour and organizational culture along with technical requirements. In this context, the study examines the effect of IoT awareness on organizational change resistance and the behavioural aspect of mediating factors such as artificial intelligence (AI) anxiety.

IoT awareness is an issue that needs to be taken into consideration in terms of employees understanding the benefits provided by IoT and accepting the technology (Gubbi, Buyya , Marusic, & Palaniswami 2013). If employees' level of IoT awareness is not increased, there is a high probability of resistance to change within the organization. In particular, concerns arising from artificial intelligence applications further increase this resistance. Factors such as data privacy, ethical concerns and fears of unemployment are the main elements that make it difficult to adopt IoT and AI (Atzori, Iera, & Morabito,2010).

IoT and AI technologies allow organizations to restructure their business processes in a way that is suitable for the era, and transform them into more efficient, flexible, and innovative structures. In addition, the combination of these technologies sometimes encounters resistance to organizational change. This resistance can arise from various factors at the individual and organizational level. The inclusion of IoT and AI in business processes can lead to concerns among employees about job loss or difficulties in adapting to these technologies. Businesses with employees with low digital literacy are more likely to encounter resistance to change. This study aims to examine the impact of IoT awareness on organizational change resistance within businesses and to investigate how AI anxiety serves as a mediating factor in this effect. In this context, the relationship dynamics between organizational resistance, IoT, and AI technologies were investigated based on the analysis results obtained from the conducted survey.

It is widely discussed in the literature that IoT has many benefits such as increasing operational efficiency, improving decision-making processes and providing competitive advantage in businesses. However, current studies evaluate the effects of IoT awareness on employee behavior mostly through positive results; It does not adequately examine how this technological awareness relates to psychological resistance to organizational change. In particular, the effect of employees' perceptions of technological change on their voluntariness and compliance levels in organizational change processes remains an important research area that is still unclear (Bayram **&** Kaya, 2023).

In addition, increasing concerns about the effects of artificial intelligence technologies on the workforce may further deepen employees' resistance to technology-based changes. Although artificial intelligence anxiety is often discussed within the framework of employment security and ethical problems in the literature, it has been ignored that this concern may play a mediating role in the relationship between IoT awareness and resistance to organizational change (Bayram & Kaya 2024a). This study aims to fill this gap in the literature and develop a more holistic understanding of organizations' digital transformation strategies by examining the impact of IoT awareness on resistance to organizational change through artificial intelligence anxiety. In this respect, the study provides important theoretical and practical contributions on how individual perceptions of technology interact with change processes at the organizational level (Bayram & Kaya 2024b).

2. CONCEPTUAL FRAMEWORK

2.1. IoT and IoT Awareness in Businesses

IoT was first conceptually introduced in 1999 at the Auto-ID Laboratories of the Massachusetts

Institute of Technology (MIT). In 2005, at the World summit on the Information Society, the International Telecommunication Union (ITU) proposed a formal definition for IoT in its publication titled "ITU Internet Report 2005: The Internet of Things". After this publication, detailed research and development studies were carried out by different institutions around the world, which led to the emergence of multiple definitions of IoT (Turgut, 2018). Marjani et al. (2017) define the Internet of Things as a technology that facilitates seamless communication between sensors and digital devices in a smart environment while enabling effective information sharing across digital platforms. Similarly, (Al-Fuqaha, Guizani, Mohammadi, Aledhari & Ayyash, 2015) defines IoT as a comprehensive set of intelligent systems that manage or regulate the abilities of physical objects to perceive, think, make decisions, share data, and communicate with each other.

Real-time communication between physical objects and digital devices is widespread by Bluetooth, Wi-Fi, ZigBee, Wireless Sensor Networks (WSN), Low Power Wide Area Networks (LPWAN) and cellular networks and other similar wireless technologies. These networking and communication technologies enable digital devices to control data and remotely operated devices to directly integrate with the physical world through computer-based systems to receive commands, and as a result, allow for positive improvements in living standards. More than 50 billion devices, including sensors, smartphones, laptops and game consoles, are expected to be connected to the Internet through heterogeneous access networks enabled by technologies such as Radio Frequency Identification (RFID) and wireless sensor networks (Atzori et al., 2010).

An Internet of Things-based system generally includes many IoT devices, infrastructures, services, and applications designed in four main layers, as presented in Figure 1 (İşler, Kaya & Kılıç, 2025). The Sensing Layer consists of sensing devices such as smart sensors, RFID, and other client components of the IoT that collect and perceive information from the physical world (Kaya et al., 2022). The Network Layer creates the communication, communication, and connectivity infrastructure for the Internet and other devices (Kaya et al., 2023). The Service Layer provides and manages data processing, analysis, and visualization services for users or other applications (Bayram and Kaya, 2023). Finally, the Interface Layer presents information to users or other relevant units through an interface (İşler et al., 2025).

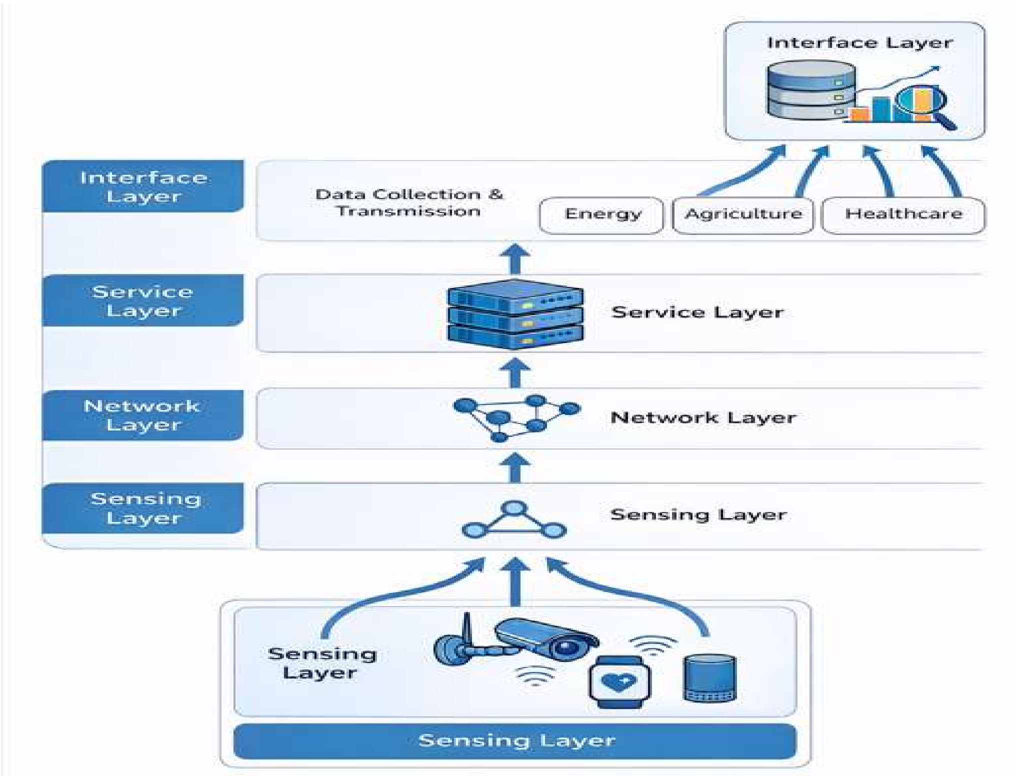


Figure 1: Classic Four-layer IoT Architecture (Esmaili & Kaya 2025)

IoT maintains its place as a fundamental technology in digitalization-related processes. IoT awareness within organizations is critical to understanding the role of this technology in human life, adopting it, and mastering it in a way that will bring it to life with its applications (Bayram & Kaya, 2024b). One reason for this is the need to grasp the opportunities that IoT offers to businesses. The opportunities provided by IoT provide an important foundation for increasing operational efficiency, improving customer experience, and offering innovative solutions (Miorandi, Sicari, De Pellegrini, & Chlamtac, 2012). Through IoT, businesses can achieve a wide range of benefits from supply chain management to customer service by collecting real-time data. According to a 2021 report by McKinsey Global Institute, IoT applications are expected to create an annual economic impact of $4-11 trillion for businesses (Manyika et al., 2021).

Identifying the key challenges in the process of integrating IoT into businesses and taking the necessary measures should become a core activity. Adopting IoT technologies requires multi-dimensional investments ranging from device costs to infrastructure improvements. Moreover, employee resistance to adopting new technologies hinders the development of IoT awareness and creates vulnerabilities to cybersecurity threats, making it even more difficult to adapt to IoT technologies (Kaya, İşler, Abu-Mahfouz, Rasheed & AlShammari, 2023).

The Internet of Things has the potential to enhance organizational structures (Okutucu & Kaya,2025). However, to realize this potential, it is necessary to increase IoT awareness and effectively address the issues that hinder its adoption. Education-based programs, strategic leadership and security-focused approaches play an important role in facilitating widespread adoption of IoT technologies within companies. (Bayram and Kaya, 2024).

2.2. Resistance to organizational change

Change can be broadly defined as the transformation of a process, system, or environment from one state to another under specific conditions (Mattos et al., 2024). According to Bühler et al. (2024), change is the number of events occurring within a specific time frame, while Hall et al. (2024) describe it as the planned or unplanned transformation of a system (Aras Beger & Türker, 2018). In general, change refers to both quantitative and qualitative transformations in a business's actions. Individual change involves a person acquiring up-to-date competencies related to their job and developing the ability to utilize these competencies effectively (Heilmann, 2007). Organizational change, on the other hand, refers to transformations occurring within the subunits of a business and in the relationships between these subunits (Butt et al., 2024). Organizations are in a constant state of change, which often occurs gradually and without a specific plan (Kotter et al., 2025). Planned organizational change, however, is a large-scale transformation that affects the entire system. Organizational change encompasses various elements, including structure, strategy, systems, human resource practices, technology, and culture (Alsharari, 2024). These elements interact with one another to enhance organizational effectiveness (Rolls, 2024). The success of change depends on employees understanding, accepting, and acting on it (Saeed et al., 2024). However, change can also bring about the phenomenon of "resistance to change." (Şimşek & Çelik, 2015).

In the literature, resistance to change is examined in three dimensions: emotional, cognitive, and behavioral (Castro et al., 2020). Emotional resistance refers to individuals' feelings about change, such as fear, anxiety, and anger (Santos de Souza, et al., 2024). Behavioral resistance, on the other hand, describes actions based on these emotions in response to change (De Clercq et al., 2024). Every change can create adaptation problems due to demographic or organizational factors, triggering resistance (Dar et al., 2024). Employees may resist change for psychological reasons, such as uncertainty, fear of losing their job or habits, and fear of failure (Santos de Souza and Chimenti, 2024). Methods such as communication, education, participation, support, negotiation, manipulation, and coercion are used to overcome resistance to change (Hagl et al., 2024). Radical changes tend to generate more resistance, while employees unaccustomed to change may respond more critically (Tunçer, 2013). Therefore, paying attention to the justified reasons for resistance and valuing the opinions of those who resist can help mitigate or eliminate resistance (Coghlan, 1993).

2.3.Artificial Intelligence and Artificial Intelligence Anxiety

English mathematician Alan Turing published his article "Computing Machinery and Intelligence" in 1950. In this article, he proposed an experiment known as the Turing test, and this test is used to determine whether a computer has the ability to think like a human. In 1956, scientists at Dartmouth College and laid the foundations of artificial intelligence research. In the 1970s and 1980s, an approach called expert systems was developed in the field of artificial intelligence. Expert systems are systems that transfer the knowledge of human experts to a computer program and are used in decision-making processes (Haenlein & Kaplan, 2019). AI, in its most general definition, is defined as the ability of a computer or a computer-controlled machine to perform tasks related to higher mental processes such as reasoning, inferring, generalizing and learning from past experiences, which are generally assumed to be human-specific qualities (Kartal, 2021). Different definitions are given for this relatively new concept. Let's express some of these definitions (Nabiyev, 2016). AI, a term coined by retired Stanford Professor John McCarthy in 1955, was defined by him as the science and engineering of making intelligent machines (Youdong et al. 2014). AI is a branch of computer science. However, it involves developing computer programs to complete tasks that would otherwise require human intelligence. AI algorithms tackle and produce solutions through learning, perception, problem solving, language understanding, and/or logical reasoning (Saleh 2019). Intuitive approaches, fuzzy logic, expert systems, artificial neural networks, genetic algorithms, machine learning, reinforcement learning, and deep learning approaches are some of the commonly used artificial intelligence techniques (Nabiyev, 2016). There are many ways to create AI, some of which are presented in Figure 2 (Saleh 2019):

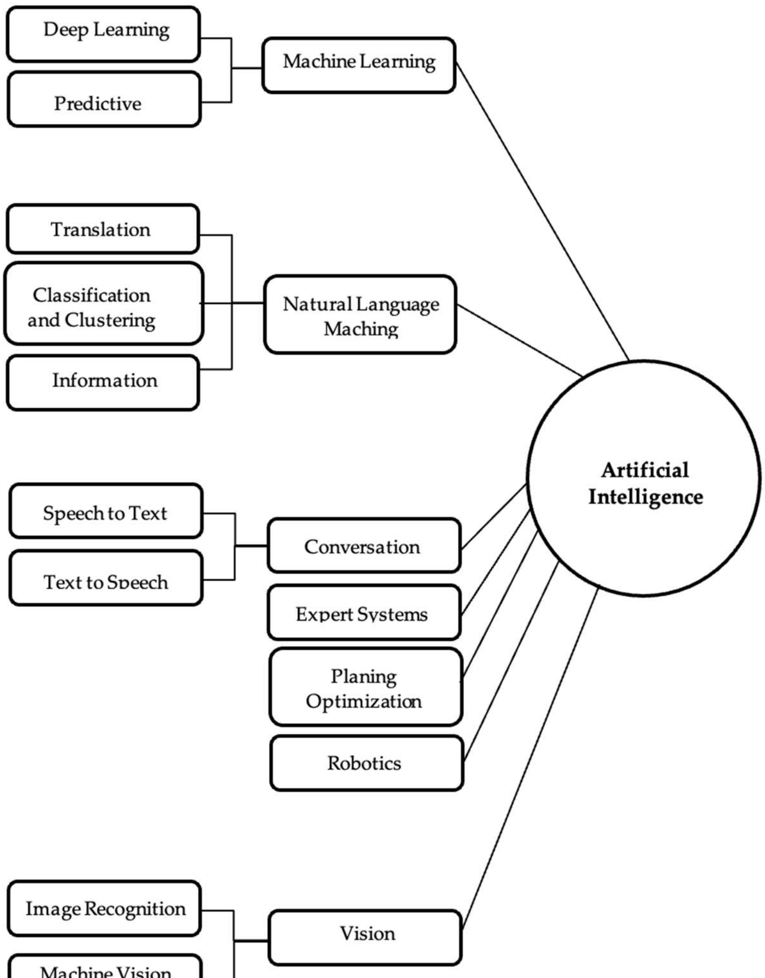


Figure 2: Artificial Intelligence and Its Sub-branches (Kaya, Bayram, & Özkan,2025).

Artificial intelligence (AI) technologies have created a major transformation in the modern world at individual and institutional levels. However, the adoption process of these technologies also brings with it various concerns. The term "AI anxiety" describes the concerns, fears, and uncertainties that individuals or groups have about AI (López, and González,2020). These concerns generally arise from data privacy, ethical issues, fear of job loss, and technological uncertainties. Data privacy and security The fact that AI systems work with big data is seen as an important factor that threatens the privacy of individuals and institutions. As Bostrom and Yudkowsky (2014) stated, designing AI applications within an ethical framework is a critical requirement to prevent this problem. In addition to data privacy and security issues, the concern about job loss in society is also one of the reasons for AI anxiety. The rapid spread of automation has increased fears that manual jobs will disappear in many sectors. Frey and Osborne's (2017) research suggests that approximately 47% of existing jobs are at risk of automation. These developments create a perception that some professions will disappear and unemployment anxiety will increase. In addition, ethical and control issues, the controllability and ethical aspects of artificial intelligence, and dystopian scenarios such as "humans being replaced by machines" bring to the agenda Russell and Norvig, (2021).

3. 3.METHODOLOGY OF THE RESEARCH

3.1. Purpose of the study and Theoretical Framework

The aim of the research is to determine whether artificial intelligence anxiety has a mediating role in the effect of Internet of Things (IoT) awareness on resistance to organizational change in businesses. Internet of Things (IoT) technologies deeply affect the digital transformation processes of businesses. In this context, artificial intelligence anxiety can play an important role in the effect of IoT on organizational change. The main purpose of the research is to examine the effect of IoT awareness on organizational change resistance and whether artificial intelligence anxiety plays a mediating role in this effect.

The model of the research is presented in Figure 3 below.

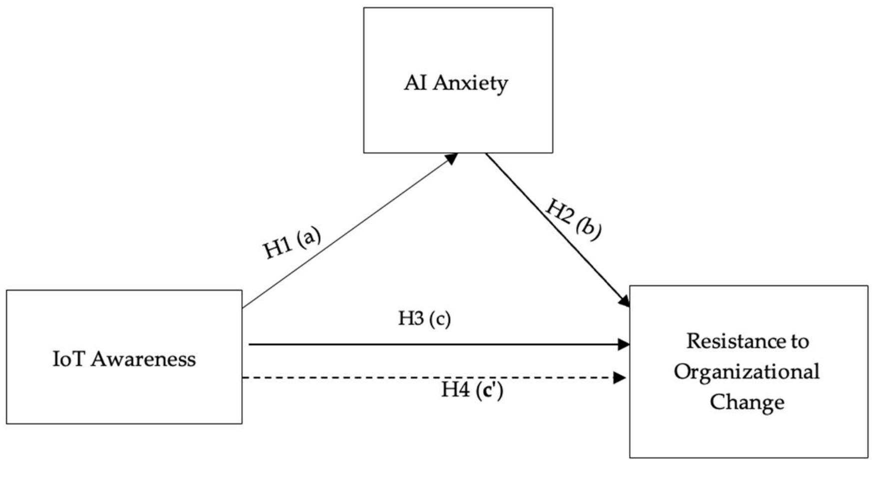


Figure 3: Research Model

The theoretical foundation of the study is primarily based on the Technology Acceptance Model (TAM) and the Theory of Resistance to Change. According to TAM, the main factors determining individuals' intentions to adopt a technology are perceived usefulness and perceived ease of use (Davis, 1989). In this context, individuals' level of awareness of IoT technologies shapes their cognitive evaluations of these technologies and influences their perceptions of the effects of technology on work processes, employment structures, and future expectations (Sinha, 2024). The literature shows that technological awareness affects not only technology adoption behaviors but also levels of technology-related anxiety (Bausch et al., 2024). Particularly in the case of technologies such as IoT that are complementary to artificial intelligence, increased awareness may intensify individuals' perceptions of uncertainty, thereby triggering anxiety related to artificial intelligence (Qin, 2024). Based on these theoretical and empirical findings, the following hypothesis is proposed:

H1: IoT awareness (IoTA) has a significant effect on artificial intelligence anxiety (AIA).

The effect of artificial intelligence anxiety on resistance to organizational change can be explained within the framework of the Theory of Resistance to Change. According to Oreg (2003), resistance to change consists of cognitive, emotional, and behavioral dimensions, and negative emotions such as anxiety and fear lead individuals to develop defensive attitudes toward change processes. Concerns related to artificial intelligence, automation, and workforce displacement increase employees' feelings of uncertainty, which may result in negative attitudes toward organizational change (Pektaş, 2024). Previous studies indicate that artificial intelligence anxiety negatively affects job satisfaction and work engagement, thereby increasing resistance to organizational change (Kim & Lee, 2025). Based on this theoretical framework, the following hypothesis is formulated:

H2: Artificial intelligence anxiety (AIA) has a significant effect on resistance to organizational change (ROC).

The relationship between IoT awareness and resistance to organizational change is addressed within the framework of the meanings individuals attribute to technology. IoT technologies fundamentally transform ways of working in organizations by increasing automation, digitalization, and the diffusion of data-driven work practices (Madakam et al., 2015). The literature suggests that individuals with high levels of technological awareness may, in some cases, be more open to change; however, when awareness focuses on the threatening aspects of technology, resistance to change may increase (Hornstein, 2015; Choi & Ruona, 2011). Therefore, IoT awareness directly influences resistance to organizational change by shaping how individuals perceive the consequences of organizational change. Accordingly, the following hypothesis is developed:

H3: IoT awareness (IoTA) has a significant effect on resistance to organizational change (ROC).

This study also examines the mediating role of artificial intelligence anxiety in the relationship between IoT awareness and resistance to organizational change. While TAM emphasizes the influence of individuals' cognitive perceptions of technology on attitudes and behaviors, the Theory of Resistance to Change highlights the determining role of emotional responses in shaping behavioral outcomes (Venkatesh & Davis, 2000; Oreg, 2006). When these two perspectives are considered together, a framework emerges in which individuals' technological awareness (a cognitive component) influences resistance to organizational change through emotional responses such as artificial intelligence anxiety. The literature provides substantial evidence that emotions play a bridging role between technology perceptions and change-related attitudes and behaviors (Rafferty & Griffin, 2006; Gürsoy et al., 2019). In this context, it is worth investigating the assumption that IoT awareness may support adaptation to change when artificial intelligence anxiety is low, but may increase resistance to change when anxiety levels are high. Based on this theoretical framework, the following hypothesis is proposed:

H4: Artificial intelligence anxiety (AIA) mediates the relationship between IoT awareness (IoTA) and resistance to organizational change (ROC).

3.2. Population and sample of the research

Ethics Committee Approval was received for the research from Istanbul Aydin University Social and Humanities Ethics Commission with decision number 2024/12 dated 14.11.2024. The universe of the research consists of 79,853 people working in the energy sector operating in Istanbul (TUIK, 2023). The energy sector was selected for the research and the research results were evaluated in the energy sector, where artificial intelligence is used intensively, and an attempt was made to provide sectoral benefits. In the study, 427 participants were reached between 15.11.2024 and 05.12.2024 by using the convenience sampling method. Based on the sample size estimation formula, it was initially indicated that a sample size of 600 participants would be sufficient. However, due to time and accessibility constraints, only 427 valid responses were obtained and included in the analysis. Convenience sampling is used for a high-inference SEM model—this weakens generalizability and should be statistically acknowledged.

There is not much clarity regarding the sample size in structural equation models. Schumacker & Lomax (2010) reported that 250-500 sample sizes were used in many studies. In determining the sample size, the rule of thumb is to have a sample volume ten times the number of indicators in the model (Stevens, 2012). In this study, there are 31 indicators in the CFA model (ROC scale, 28 items and 3 dimensions), which has the highest number of indicators. There are 25 indicators in the path analysis model, and 250 samples are sufficient. In this case, 310 samples are sufficient. In this study, 427 samples were reached, and the required number of samples was met.

3.3. Data collection tools used in the research

The survey form prepared for the study consists of 4 sections. Demographic characteristics were used in the first section, “Internet of Things (IoT) awareness scale” in the second section, “Resistance to organizational change scale” in the third section, and “Artificial intelligence anxiety scale” in the fourth section. A 5-point Likert scale (1= Strongly Disagree, 2= Disagree, 3= Undecided, 4= Agree, 5= Strongly Agree) was used in the survey. 6 items were created in order to obtain demographic information (gender, age, education level, marital status, income level and working time in the institution).

In the second part of the survey form, the “Internet of Things (IoT) Awareness Scale” consisting of 15 items and 2 dimensions developed by Bayram and Kaya (2023) was used. The scale dimensions, Activity dimension, consist of 7 items and Benefit dimension consist of 8 items. Cronbach Alpha values of the scale were determined as 0.912 in the pilot application in the energy sector, 0.917 in the health sector application and 0.873 in the aviation sector application. These values show that the scale itself and all its dimensions are valid and reliable. The scale includes items such as “Transportation, supply and logistics activities of businesses can be tracked with Internet of Things technologies.”

In the third part of the survey form, the “Organizational Change Resistance Scale” developed by Balaman and Baş (2021) was used to measure the perception of resistance to organizational change. The scale consists of 28 items and 3 dimensions. The Skepticism dimension of the scale is 10 items, the Anxiety dimension is 9 items, and the Acceptance dimension is 9 items. The Cronbach Alpha value for the entire scale was calculated as 0.92, 0.93 for the Skepticism factor, 0.89 for the Anxiety factor, and 0.87 for the Acceptance factor. These values show that the scale is a valid and reliable measurement tool. The scale includes items such as “Changes in this institution usually remain at the level of discourse; changes do not actually occur.”

In the fourth part of the questionnaire form, the “Artificial Intelligence Anxiety Scale” consisting of 16 items and 4 dimensions adapted to Turkish by Akkaya et al. (2021) was used. The scale dimensions consist of 5 items for the Learning dimension, 4 items for the Job Change dimension, 4 items for the Sociotechnical Blindness dimension, and 3 items for the AI Configuration dimension. It is understood that the Cronbach Alpha value for the entire scale is 0.937, 0.948 for the Learning dimension, 0.895 for the Job Change dimension, 0.875 for the Sociotechnical Blindness dimension, and 0.950 for the AI Configuration dimension, and the scale has sufficient reliability. The scale includes items such as “I am worried that an artificial intelligence technique / product could replace humans.”

3.2. Method

In this study, SPSS 21.0 and AMOS 22.0 statistical software were used in the analysis of data. The analysis results were considered at a 95% confidence level (Moors, 1986; De Carlo, 1997; Hopkins and Weeks, 1990; Groeneveld and Meeden, 1984). Acceptable fit values for path analysis in the study are given in Table 1 (Meydan & Şeşen, 2015; Tabachnick & Fidell, 2012).

Table 1: Acceptable Compliance Values

$\chi 2/ sd \leq 5$
$0,90 \leq GFI < 0,95$
$0,85 \leq AGFI < 0,90$
$0,90 \leq CFI < 0,95$
$0,05 < RMSEA \leq 0,10$
$0,05 < RMR \leq 0,08$

4. RESULTS

Table 2 shows the distribution of participants according to their demographic characteristics.

Table 2: Demographic Characteristics of the Participants

Demographic variable	Groups	N	%
Gender	Female	131	30,7
	Male	296	69,3
Age	18-24 years	370	86,7
	25-34 years	26	6,1
	35-44 years	24	5,6
	45 years and above	7	1,6
Marital status	Married	32	7,5
	Single	395	92,5
Education	High school graduate	36	8,4
	Associate degree	285	66,7
	Bachelor's degree	94	22,0
	Postgraduate	12	2,8
Average monthly income	17000-25000 TL	252	59,0
	25001-35000 TL	51	11,9
	35001-45000 TL	36	8,4
	45001 TL and above	88	20,6
Working period in the organization	Less than 1 year	239	56,0
	1-5 years	137	32,1
	6-10 years	20	4,7
	11 years and above	31	7,3

Of the 427 employees who participated in the survey, 30.7% were female and 69.3% were male. 86.7% of the participants were in the 18-24 age group, 6.1% in the 25-34 age group, 5.6% in the 35-44 age group, and 1.6% in the 45 and over age group. 7.5% of the participants were married, 92.5% were single. 8.4% of the participants were high school graduates, 66.7% had an associate degree, 22% had a bachelor's degree, and 2.8% had a postgraduate education. The average monthly income of 59% of the participants is between 17000-25000 TL, 11.9% between 25001-35000 TL, 8.4%

between 35001-45000 TL, 20.6% has an average monthly income of 450001 TL and above. The length of service of 56% of the participants in the institution is less than 1 year, 32.1% between 1-5 years, 4.7% between 6-10 years, and 7.3% has been working in the institution for 11 years and above.

4.1. Validity and Reliability Results

Confirmatory factor analysis fit indices for the Internet of Things Awareness (IoT) (15 items, 2 dimensions), Resistance to Organizational Change (ROC) (28 items, 3 dimensions) and Artificial Intelligence Anxiety (AIA) (16 items, 4 dimensions) scales are presented in Table 3.

Table 3: Model Fit Indices Obtained From Confirmatory Factor Analyses (CFA)

Model Fit Indices	Ref.	IoTA 15 Items 1 sub-d.	ROC 28 Items 3 sub-d.	AIA 16 Items 4 sub-d.
X2/df	< 5	2,963	2,715	3,929
SRMR	≤0,08	0,038	0,047	0,051
GFI	≥0,90	0,925	0,861	0,898
NNFI	≥0,90	0,938	0,905	0,935
CFI	≥0,90	0,946	0,914	0,947
RMSEA	≤0,10	0,068	0,063	0,083
Factor load	>0,40	0,54 / 0,79	0,56 / 0,77	0,72 / 0,92
Interdimensional correlation	<0,95	-	0,64 / 0,86	0,49 / 0,93
Covariance link		-	i1-i5, i16-i19, i26-i27, i27-i28	-

Source: Çokluk, Şekercioğlu and Büyüköztürk, 2010; IoTA: Internet of Things Awareness; ROC:

Resistance to Organizational Change; AIA: Artificial Intelligent Anxiety; *Covariance connection established; sub-d.: Sub-dimension

Table 4 below shows the normality assumption in CFA results for the IoT scale.

Table 4: Normality Assumption in CFA Results (IoT Scale CFA)

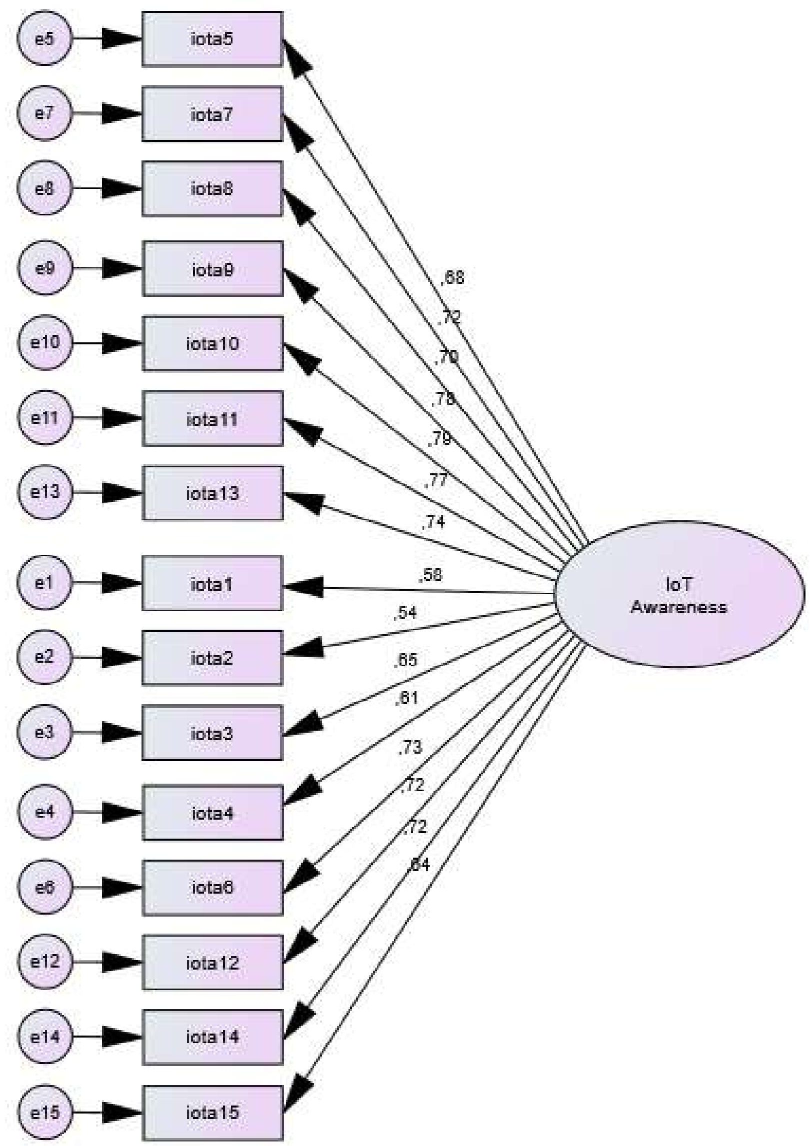
Assessment of normality (Group number 1)

Variable	min	max	skew	c.r.	kurtosis	c.r.
iot15_nrm	-2,000	-1,000	-,234	-1,974	-,542	-2,286
iot3_nrm	-2,236	-1,000	-,143	-1,208	-,075	-,317
iot2_nrm	-2,236	-1,000	-,174	-1,465	-,181	-,763
iot14_nrm	-2,236	-1,000	,036	,303	-,248	-1,047
iot12_nrm	-2,236	-1,000	-,075	-,630	-,266	-1,122
iot6_nrm	-2,236	-1,000	-,198	-1,669	-,089	-,376
iot4_nrm	-2,236	-1,000	-,019	-,164	-,110	-,464
iot1_nrm	-2,236	-1,000	-,190	-1,603	,173	,731
iot8_nrm	-2,236	-1,000	-,125	-1,057	-,213	-,898
iot7_nrm	-2,000	-1,000	-,228	-1,927	-,607	-2,562
iot13_nrm	-2,236	-1,000	-,042	-,352	-,318	-1,342
iot11_nrm	-2,000	-1,000	-,233	-1,965	-,538	-2,271
iot10_nrm	-2,236	-1,000	-,206	-1,734	-,069	-,292
iot9_nrm	-2,236	-1,000	-,201	-1,693	-,166	-,698
iot5_nrm	-2,236	-1,000	-,130	-1,097	,100	,420

In Table 4, it was determined that the critical value obtained by dividing the skewness and kurtosis coefficients examined to evaluate the normality of the variables observed in the Internet of Things Awareness (IoTA) Scale CFA model by their standard errors was in the range of ±2 for skewness and in the range of ±3 for kurtosis.

Figure 4 below shows the CFA diagram for IoT scale.

Figure 4: IoT Scale Confirmatory Factor Analysis (CFA)Diagram



According to the first results of the confirmatory factor analysis, CFA was performed in a one-dimensional manner because it was understood that the correlation coefficient between the two dimensions was 0.99, in other words, one dimension would be more appropriate instead of two dimensions. As a result of the CFA, which was performed as a single dimension, it was determined that the model fit indices were at appropriate levels and the item factor loads were higher than 0.40 without the need for any modification.

Table 5 below shows the CFA normal distribution results for the ROC scale.

Table 5: Normality assumption in CFA results (ROC Scale CFA)

Assessment of normality (Group number 1)

Variable	min	max	skew	c.r.	kurtosis	c.r.
roc28_nrm	-2,236	-1,000	,083	,700	,024	,101
roc27_nrm	-2,236	-1,000	,226	1,909	-,093	-,391
roc22_nrm	-2,236	-1,000	-,002	-,015	-,122	-,515
roc21_nrm	-2,236	-1,000	,087	,736	-,197	-,832
roc26_nrm	-2,236	-1,000	,137	1,157	-,158	-,668
roc25_nrm	-2,236	-1,000	-,115	-,970	-,368	-1,553
roc24_nrm	-2,236	-1,000	-,171	-1,442	-,298	-1,257
roc23_nrm	-2,236	-1,000	,133	1,118	-,415	-1,749
roc20_nrm	-2,236	-1,000	,035	,294	-,416	-1,754
roc19_nrm	-2,236	-1,000	-,032	-,271	-,323	-1,363
roc18_nrm	-2,236	-1,000	-,025	-,209	-,267	-1,127
roc13_nrm	-2,236	-1,000	-,059	-,498	-,376	-1,584
roc12_nrm	-2,236	-1,000	,140	1,180	-,129	-,543
roc17_nrm	-2,236	-1,000	-,100	-,846	-,240	-1,014
roc16_nrm	-2,236	-1,000	-,231	-1,949	-,704	-2,969
roc15_nrm	-2,236	-1,000	,011	,096	-,311	-1,310
roc14_nrm	-2,236	-1,000	-,042	-,355	-,134	-,565
roc11_nrm	-2,236	-1,000	-,185	-1,557	-,240	-1,010
roc10_nrm	-2,236	-1,000	,229	1,936	-,090	-,378
roc9_nrm	-2,236	-1,000	,124	1,043	-,509	-2,148
roc8_nrm	-2,236	-1,000	,162	1,363	-,290	-1,221
roc3_nrm	-2,236	-1,000	,011	,096	-,250	-1,057
roc2_nrm	-2,236	-1,000	,008	,070	-,149	-,630
roc7_nrm	-2,236	-1,000	-,165	-1,390	-,010	-,042
roc6_nrm	-2,236	-1,000	-,009	-,080	-,299	-1,260
roc5_nrm	-2,236	-1,000	,208	1,754	-,283	-1,194
roc4_nrm	-2,236	-1,000	,088	,739	-,344	-1,451
roc1_nrm	1,000	5,000	-,054	-,453	-,364	-1,535

In Table 5, it was determined that the critical value obtained by dividing the skewness and kurtosis coefficients examined to evaluate the normality of the variables observed in the CFA model of the Organizational Change Resistance Scale (ROC) by their standard errors was in the range of ±2 for skewness and in the range of ±3 for kurtosis.

Figure 5 below shows the CFA diagram of the organizational change resistance scale.

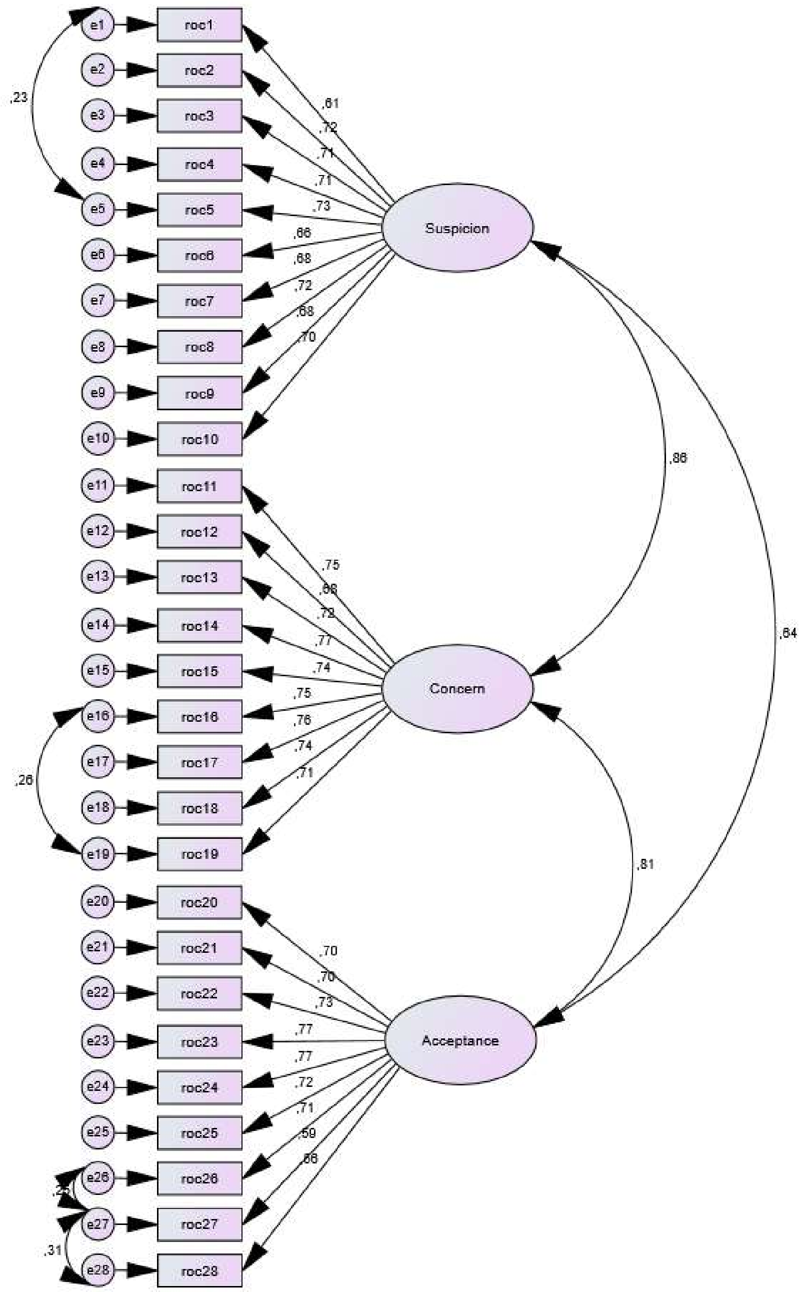


Figure 5: Organizational Change Resistance Scale DFA Diagram

According to the first results of the confirmatory factor analysis, it was determined that the item factor loads were at appropriate levels, but the model fit indices were generally not good. In measurement models, modifications of the model are made when necessary. Typically, this stage is cyclical, meaning that the model is constantly modified until a decision is made for an adequate fit. In this direction, four covariance connections (i1-i5, i16-i19, i26-i27, i27-i28) were made in accordance with the modification recommendations and it was determined that the model fit indices reached appropriate levels. Although the GFI index is 0.90<, since the SRMR is 0.08≤, a GFI cut-off value greater than 0.85 can still be an indication of an acceptable fit (Cho et al., 2020). On the other hand, the fact that the model fit indices are acceptable except for one is also acceptable for model fit (Çokluk, Şekercioğlu and Büyüköztürk, 2010).

Table 6 below shows the Normality assumption in CFA results for the ROC scale.

Table 6: Normality assumption in CFA results (AIA Scale CFA)

Assessment of normality (Group number 1)

Variable	min	max	skew	c.r.	kurtosis	c.r.
aia13_nrm	-2,236	-1,000	,150	1,264	-,665	-2,806
aia12_nrm	-2,236	-1,000	,039	,330	-,694	-2,926
aia16_nrm	-2,236	-1,000	,230	1,943	-,707	-2,982
aia15_nrm	-2,236	-1,000	,216	1,818	-,670	-2,825
aia14_nrm	-2,236	-1,000	,183	1,545	-,692	-2,920
aia11_nrm	-2,236	-1,000	,090	,763	-,582	-2,455
aia10_nrm	-2,236	-1,000	-,233	-1,965	-,656	-2,768
aia9_nrm	-2,236	-1,000	-,156	-1,313	-,677	-2,855
aia8_nrm	-2,236	-1,000	,120	1,015	-,667	-2,812
aia3_nrm	-2,236	-1,000	,162	1,371	-,607	-2,559
aia2_nrm	-2,236	-1,000	,218	1,837	-,684	-2,886
aia7_nrm	-2,236	-1,000	-,003	-,028	-,622	-2,625
aia6_nrm	-2,236	-1,000	,025	,214	-,703	-2,967
aia5_nrm	-2,236	-1,000	,182	1,539	-,159	-,670
aia4_nrm	-2,236	-1,000	,201	1,698	-,224	-,944
aia1_nrm	-2,236	-1,000	,226	1,904	-,636	-2,684

In Table 6, the result indicate that that the critical value obtained by dividing the skewness and kurtosis coefficients examined to evaluate the normality of the variables observed in the Artificial Intelligence Anxiety Scale (AIA) CFA model by their standard errors was in the range of ±2 for skewness and in the range of ±3 for kurtosis.

Below is the CFA diagram of the AI anxiety scale in Figure 6.

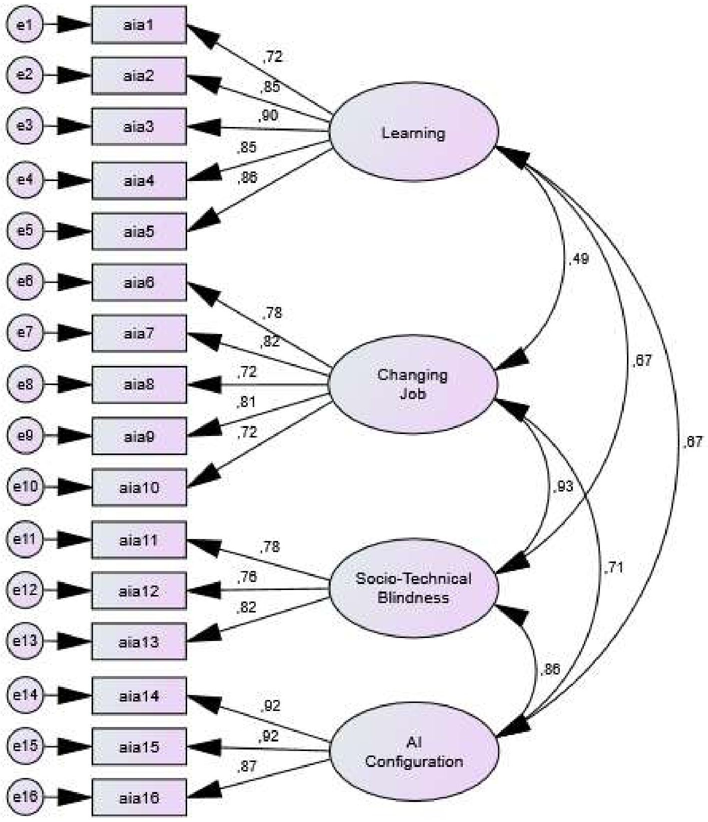


Figure 6: Artificial Intelligence Anxiety Scale DFA Diagram

According to the first results of the confirmatory factor analysis, it was determined that the item factor loads and model fit indices were at appropriate levels without the need for any covariance connection.

The factor loads obtained as a result of the confirmatory factor analysis of the scales, the t-values of the factor loads, the item-total correlation obtained within the scope of the reliability analysis, and the Cronbach's Alpha coefficients are shown in Table 7.

Table 7: CFA and Reliability Analysis Findings

IoT (α=0,932)						**ROC (α=0,953)**						**AIA (α=0,943)**					
Items	**B**	**SE**	**Std. β**	**t**	**r**	**Items**	**B**	**SE**	**Std. β**	**t**	**r***	**Items**	**B**	**SE**	**Std. β**	**t**	**r***
						F1					**0,904**	**F1**					**0,919**
i5	1,000		0,68		0,666	i1	1,000		0,62		0,512	i1	1		0,72		0,607
i7	1,097	0,079	0,72	13,89**	0,687	i2	1,120	0,092	0,72	12,20**	0,644	i2	1,227	0,072	0,85	17,12**	0,660
i8	1,015	0,076	0,70	13,42**	0,670	i3	1,129	0,093	0,71	12,12**	0,622	i3	1,264	0,07	0,90	18,11**	0,681
i9	1,190	0,080	0,78	14,91**	0,749	i4	1,174	0,097	0,71	12,10**	0,640	i4	1,269	0,074	0,85	17,17**	0,642
i10	1,193	0,079	0,79	15,09**	0,758	i5	1,168	0,084	0,73	13,95**	0,635	i5	1,261	0,072	0,86	17,42**	0,701
i11	1,125	0,077	0,77	14,65**	0,731	i6	1,091	0,095	0,66	11,47**	0,599	**F2**					**0,877**
i13	1,090	0,077	0,74	14,18**	0,710	i7	1,040	0,089	0,68	11,65**	0,635	i6	1		0,78		0,683
i1	0,858	0,075	0,59	11,39**	0,580	i8	1,168	0,095	0,72	12,25**	0,649	i7	0,990	0,054	0,82	18,19**	0,666
i2	0,865	0,081	0,54	10,63**	0,535	i9	1,123	0,096	0,68	11,70**	0,622	i8	0,919	0,059	0,72	15,44**	0,692
i3	0,935	0,075	0,65	12,53**	0,626	i10	1,088	0,091	0,71	12,01**	0,615	i9	1,012	0,057	0,81	17,88**	0,636
i4	0,903	0,076	0,61	11,91**	0,594	**F2**					**0,914**	i10	0,877	0,056	0,72	15,61**	0,559
i6	1,088	0,077	0,73	14,05**	0,703	i11	1,000		0,75		0,697	**F3**					**0,827**
i12	1,010	0,073	0,72	13,78**	0,690	i12	0,865	0,061	0,68	14,22**	0,651	i11	1		0,78		0,729
i14	1,023	0,074	0,72	13,82**	0,692	i13	0,989	0,066	0,72	15,06**	0,670	i12	1,026	0,061	0,76	16,74**	0,704
i15	0,976	0,079	0,64	12,33**	0,605	i14	0,984	0,061	0,77	16,25**	0,729	i13	1,126	0,061	0,82	18,34**	0,774
						i15	0,971	0,063	0,74	15,52**	0,700	**F4**					**0,929**
						i16	1,059	0,067	0,75	15,72**	0,692	i14	1		0,92		0,788
						i17	0,952	0,060	0,76	15,94**	0,702	i15	0,992	0,032	0,92	31,16**	0,795
						i18	0,965	0,062	0,74	15,50**	0,694	i16	0,992	0,036	0,87	27,42**	0,755
						i19	0,939	0,063	0,71	14,89**	0,683						
						F3					**0,897**						
						i20	1,000		0,70		0,640						
						i21	0,951	0,071	0,70	13,48**	0,574						
						i22	0,985	0,071	0,73	13,95**	0,651						
						i23	1,056	0,072	0,77	14,69**	0,638						
						i24	1,026	0,070	0,77	14,59**	0,624						
						i25	0,975	0,071	0,72	13,83**	0,599						
						i26	0,944	0,069	0,71	13,64**	0,600						
						i27	0,793	0,070	0,59	11,35**	0,526						
						i28	0,755	0,070	0,56	10,83**	0,490						

**p<0.01 r: Inter-item correlation; *Bold values are Cronbach Alpha coefficient of the dimension.

IoTA: Internet of Things Awareness; ROC: Resistance to Organizational Change; AIA: Artificial Intelligent Anxiety; *Covariance connection established; sub-d.: Sub-dimension

According to the CFA findings of the Internet of Things Awareness (IoTA) Scale, the factor loadings of the 15 items in the scale were between 0.54 and 0.79 and the t values were significant (p<0.01) (Table 3, Figure 4). The Cronbach Alpha coefficient in the IoTA Scale was found to be 0.93 and the item-total correlations were found to be higher than 0.20 (between 0.53 and 0.86). According to the validity and reliability analysis findings, it was determined that the IoTA Scale was a reliable and valid scale with its 15 items and one-dimensional structure.

According to the CFA findings of the Resistance to Organizational Change Scale (ROC), the factor loadings of the 28 items in the scale in the dimensions they belong to are between 0.56 and 0.77 and the t values are significant (p<0.01) (Table 3, Figure 5). The Cronbach's Alpha coefficient in the ROC Scale was found to be 0.95; the Cronbach's Alpha coefficients of the sub-dimensions were found to be 0.90 / 0.91 / 0.90 and the item-total correlations were found to be higher than 0.20 (between 0.49 and 0.73). According to the validity and reliability analysis findings, the Resistance to Organizational Change (ROC) Scale was found to be a reliable and valid scale with its 28 items and 3-dimensional structure (Suspicion, Concern, Acceptance).

According to the CFA findings of the Artificial Intelligence Anxiety Scale (AIA), it is seen that the factor loadings of the 16 items in the scale in the dimensions they belong to are between 0.72 and 0.92 and the t values are significant (p<0.01) (Table 3, Figure 6). Cronbach's Alpha coefficient in the AIA Scale was 0.94; Cronbach's Alpha coefficients of the sub-dimensions were 0.92 / 0.88 / 0.83 / 0.93 and the item-total correlations were found to be higher than 0.20 (between 0.56 and 0.79). According to the validity and reliability analysis findings, it was determined that the Artificial Intelligence Anxiety (AIA) Scale is a reliable and valid scale with its 16 items and 4-dimensional structure (Learning, Changing Job, Socio-Technical Blindness, AI Configuration).

4.2. Descriptive Results

In Table 8, descriptive statistics of scale scores are given.

Table 8: Descriptive Statistics of Scale Scores

Scale and Sub-Dimension	N	Min.	Max.	$\bar{X}$	SD	Skewness	Kurtosis
INTERNET OF THINGS AWARENESS	**427**	**1,00**	**5,00**	**2,15**	**0,63**	**-0,54**	**0,95**
RESISTANCE TO ORGANIZATIONAL CHANGE	**427**	**1,00**	**5,00**	**3,52**	**0,63**	**0,78**	**0,96**
Suspicion	427	1,00	5,00	3,34	0,72	0,28	0,92
Concern	427	1,00	5,00	3,62	0,73	-0,32	0,75
Acceptance	427	1,00	5,00	3,62	0,67	-0,03	0,92
ARTIFICIAL INTELLIGENT ANXIETY	**427**	**1,00**	**5,00**	**3,06**	**0,87**	**-0,12**	**0,09**
Learning	427	1,00	5,00	2,68	1,03	0,25	-0,63
Changing Job	427	1,00	5,00	3,37	0,96	-0,46	-0,14
Socio-Technical Blindness	427	1,00	5,00	3,24	0,98	-0,36	-0,27
AI Configuration	427	1,00	5,00	2,99	1,14	-0,09	-0,82

According to Table 8, the mean score of the IoTA scale was determined as 2.15±0.63. According to the lowest (1) and highest (5) scores that can be obtained from the scale, the participants' IoT awareness is at a low level.

According to Table 8, the ROC scale mean score was determined as 3.52±0.63. According to the lowest (1) and highest (5) scores that can be obtained from the scale, the participants' resistance to organizational change is at a medium/high level. When the sub-dimensions are examined, suspicion (3.34±0.72) is at a medium level; concern (3.62±0.73) and acceptance (3.62±0.67) are at a medium/high level.

According to Table 8, the AIA scale mean score was determined as 3.06±0.87. According to the lowest (1) and highest (5) scores that can be obtained from the scale, the participants' artificial intelligence anxiety is at a moderate level. When the sub-dimensions are examined, learning (2.68±1.03) and AI configuration (2.99±1.14) are at a low level; changing job (3.37±0.96) and socio-technical blindness (3.24±0.98) are at a moderate level.

4.3. Findings regarding the relationship between IoTA, ROC and AIA

Table 9: Relationship Between IoTA, ROC and AIA

Variable	1	2	3	4	5	6	7	8	9	10
1-IoTA	1	-0,43**	-0,30**	-0,40**	-0,46**	-0,18**	-0,08	-0,20**	-0,22**	-0,13**
2-ROC		1	0,89**	0,93**	0,85**	0,44**	0,31**	0,42**	0,41**	0,35**
3-Suspicion				0,77**	0,57**	0,48**	0,42**	0,41**	0,43**	0,40**
4-Concern				1	0,72**	0,35**	0,19**	0,40**	0,34**	0,27**
5-Acceptance					1	0,32**	0,21**	0,31**	0,31**	0,26**
6-AIA						1	0,81**	0,85**	0,90**	0,87**
7-Learning							1	0,46**	0,59**	0,63**
8-Changing Job								1	0,81**	0,65**
9-Socio-Technical Blindness									1	0,75**
10-AI Configuration										1

*p<0.05 **p<0.01; IoTA: Internet of Things Awareness; ROC: Resistance to Organizational

Change; AIA: Artificial Intelligent Anxiety

According to Table 9, a negative and significant relationship was found between the IoTA scale score and ROC (r=-0.43; p<0.05), suspicion (r=-0.30; p<0.05), concern (r=-0.40; p<0.05), acceptance (r=-0.46; p<0.05) scores.

A negative and significant relationship was found between the IoTA scale score and AIA (r=-0.18; p<0.05), changing job (r=-0.20; p<0.05), socio-technical blindness (r=-0.22; p<0.05), AI configuration (r=-0.13; p<0.05) scores.

According to Table 9, a negative and significant relationship was found between the ROC score and AIA (r=0.44; p<0.05), learning (r=0.31; p<0.05), changing job (r=0.42; p<0.05), socio-technical blindness (r=0.41; p<0.05), AI configuration (r=0.35; p<0.05) scores.

4.4. Findings related to hypotheses

Figure 7 below shows the path analysis diagram of the mediating role of AI anxiety (AIA) in the relationship between internet of things awareness (IoTA) and resistance to organizational change (ROC).

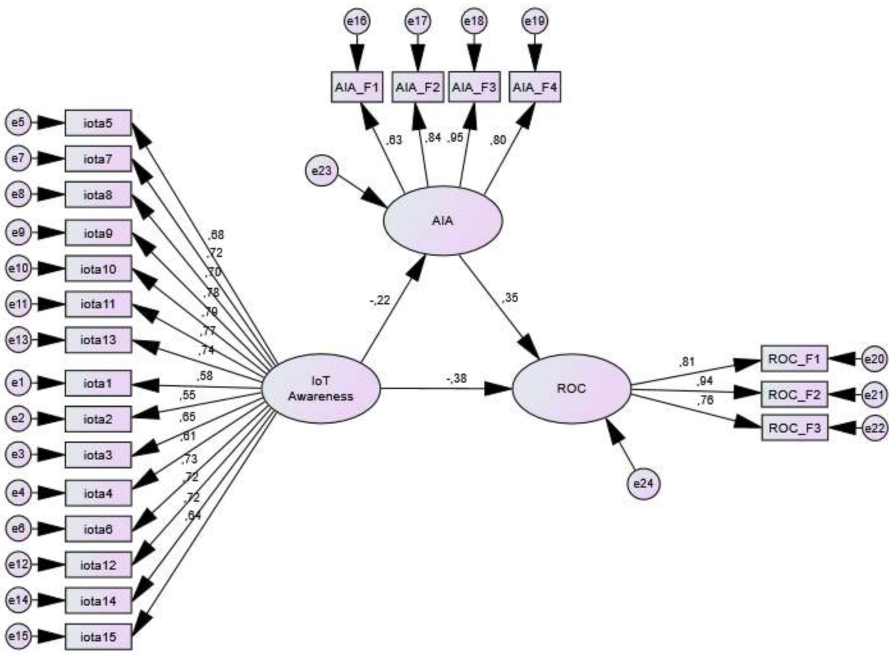


Figure 7: Path Analysis Diagram with Mediator Variable

In the model, IoT awareness was specified as the independent variable, resistance to organizational change (ROC) as the dependent variable, and artificial intelligence anxiety (AIA) as the mediating variable. To establish a mediating effect, the direct relationship between the independent and dependent variables (path c) should decrease in magnitude or lose statistical significance after the inclusion of the mediating variable (path c′). If the direct effect remains significant, the significance of the indirect effect can be assessed using the Sobel test statistic. (https://www.danielsoper.com/statcalc/calculator.aspx?id=31).

Table 10 presents the hypothesis test results regarding the mediating role of artificial intelligence anxiety (AIA) in the relationship between IoT awareness (IoTA) and resistance to organizational change (ROC)

Table 10: The Mediating Role of Artificial Intelligence Anxiety (AIA) in the Relationship Between IoT

Awareness (IoTA) and Resistance to Organizational Change (ROC)

Model	Independent	Path	Dependent	H	β	t	p	R^2
Independent Model	IoTA	→	AIA	H1 (a)	-0,23	-4,188	**0,000**	0,051
	X^2/sd=2,802	SRMR=0,044	GFI=0,905		NNFI=0,930	CFI=0,938	RMSEA=0,065	
	AIA	→	ROC	H2 (b)	0,38	6,799	**0,000**	0,144
	X^2/sd=6,472	SRMR=0,058	GFI=0,952	RMSEA=0,093	NNFI=0,930	CFI=0,960		
	IoTA	→	ROC	H3 (c)	-0,44	-7,945	**0,000**	0,197
	X^2/sd=2,689 RMSEA=0,063	SRMR=0,048	GFI=0,915		NNFI=0,937	CFI=0,945		
Mediator Model	**Independent**	**Path**	**Dependent**	**H**	**Mediator**	**IE**	**SBT**	**R^2_{IE}**
	IoTA	→	ROC	H4 (c')	AIA	-0,077	-3,334**	0,024
	X^2/sd=2,558 RMSEA=0,071	SRMR=0,059	GFI=0,929		NNFI=0,903	CFI=0,924		

*: p<0.05; **: p<0.01; IE: Indirect Effect; SBT: Sobel test statistics; R2IE: Variance due to indirect effect

In order to evaluate the normality of the variables observed in the path analysis model, it was determined that the critical value obtained by dividing the skewness and kurtosis coefficients by their standard errors was in the range of ±2 for skewness and in the range of ±3 for kurtosis (Table 10). When the VIF was examined for the multiple connections between the independent variables, it was found that it was 10< and there was no multiconnection problem.

H1: IoT awareness (IoTA) has significant impact on artificial intelligence anxiety (AIA).

H1: Accepted. IoT awareness (IoTA) has a negative significant effect on artificial intelligence anxiety (AIA) (β=-0.23; t=-4.19; $p<0.05$).

H2: Artificial intelligence anxiety (AIA) has a significant effect on resistance to organizational change (ROC).

H2: Accepted. Artificial intelligence anxiety (AIA) has a positive significant effect on resistance to organizational change (ROC) ((β=0.38; t=6.80; $p<0.05$).

H3: IoT awareness (IoTA) has significant impact on organizational resistance to change (ROC).

H3: Accepted. IoT awareness (IoTA) has a negative and significant effect on resistance to organizational change (ROC) (β=-0.44; t=-7.94; $p<0.05$).

H4: Artificial intelligence anxiety (AIA) has a mediating role in the relationship between IoT awareness (IoTA) and resistance to organizational change (ROC).

H4: Accepted. In the relationship between IoT awareness (IoTA) and resistance to organizational change (ROC), artificial intelligence anxiety (AIA) has a mediating role (IE=-0.08; SBT=-3.33; $p<0.05$). The effect of IoT awareness (IoTA) on reducing resistance to organizational change (ROC) (H3: β=-0.44) decreases significantly through the mediation of artificial intelligence anxiety (H3: β=-0.38) and this change is approximately 7% (R2IE= 0,071).

5. CONCLUSION

In this study, the effects of IoT awareness on AI anxiety and resistance to organizational change were examined. The findings show that IoT awareness reduces AI anxiety, while artificial intelligence anxiety increases resistance to organizational change. In addition, it was determined that IoT awareness directly reduces resistance to organizational change. Most importantly, it was determined that AI anxiety plays a significant mediating role in the effect of IoT awareness on resistance to organizational change. Through this mediation, the effect of IoT awareness in reducing resistance to change is approximately 7%. These results reveal the importance of businesses considering the effect of artificial intelligence anxiety in the process of adopting IoT technologies and developing strategies to manage this anxiety. The results of this study show that businesses should take steps to reduce AI anxiety while increasing IoT awareness in their organizational change processes. In addition, support mechanisms should be created to address the concerns of employees who resist change. In order for IoT and AI to be successfully implemented in organizations, it is of great importance to adopt change management strategies. In particular, training can be organized for employees to adapt to these technologies, the benefits of change can be explained, and necessary precautions can be taken regarding data security. Adapting organizational culture to change and leaders playing an active role in this transformation process will play a critical role in reducing the level of resistance.

AI anxiety plays an important role in organizational change models, as in many other areas. AI anxiety helps in understanding employees' resistance to change. Employee concerns about AI can affect the level of resistance they may face during the transition phase. These anxieties can lead to employees feeling insecure and reluctant to new technologies. The adoption of AI technologies may require employees to acquire new skills. In this context, artificial intelligence concern can be considered to emphasize how important training and support mechanisms are in change processes. Training and development programs can reduce employee anxiety and enable them to better adapt to new technologies. The concern for artificial intelligence reveals the importance of communication and transparency strategies in organizations. In the process of change, managers need to communicate openly with employees and clearly articulate the advantages and potential threats of AI applications. In this way, anxiety can be reduced and change processes can proceed in a healthier way. Artificial intelligence anxiety is an element that encourages transformation in organizational culture. Organizations adopting a culture that supports innovative thinking, and digital transformation can reduce employees' concerns about AI. Models of change should provide a broader framework, considering this process of cultural adaptation. Taking into account employees' opinions and concerns about AI applications can make organizational change processes more effective. The feedback collected helps to better shape change models and allows concrete steps to be taken to address employees' concerns.

When managers teach employees how AI works and how it can improve business processes, it can reduce resistance to AI, fears, and misunderstandings. Involving employees in AI projects allows them to take greater ownership of these processes. Taking their ideas and incorporating them in the development stages can reduce the feeling of resistance. Providing open communication about the goals, benefits, and potential challenges of AI applications can lead to a more positive approach to these processes. Transparency helps increase trust. Offering a variety of incentives to employees who adopt AI can make change a positive experience. Creating rewards or recognition mechanisms can increase employees' motivation for these new technologies. Showing sensitivity to employees' needs and concerns allows the process to become more acceptable. Being flexible during change can help employees show less resistance. Constantly receiving feedback from employees offers ideas on how AI systems can be improved. This process makes employees feel valued and contributes to their positive outlook on change. It is important to convey the message that artificial intelligence can achieve better results by getting support from artificial intelligence instead of replacing humans.

The sample of the study exhibits a homogeneous structure in terms of age, working time and education level. This homogeneity may limit the generalizability of the findings obtained, reducing their validity for individuals with different demographic characteristics. Therefore, this can be considered as an important limitation of the research as a potential source of bias.

Self-report methods and single-point data collection designs, which are widely used in academic research, especially in the social sciences, increase the risk of widespread method bias. Self-reporting data on both dependent and independent variables at the same time can lead to systematic errors due to a desire for consistency in responses, the effect of social likability, or recall bias. This makes the relationships between the variables appear stronger or weaker than they are, threatening the validity of the research findings. Therefore, in the future, it may be suggested that researchers limit this effect with strategies such as using multiple data sources, time separation practices, or statistical control methods to reduce the risk of method-induced bias.

In addition, it can be suggested to examine the research topic in different sectors and cultural contexts and to investigate the effects of different mediating and regulatory variables. In particular, the role of factors such as leadership styles, communication strategies and organizational culture on the interaction between IoT awareness, artificial intelligence anxiety and resistance to change can be examined. This study contributes to the literature by addressing the effect of IoT awareness on organizational resistance through the mediating role of AI anxiety. Research findings show that AI anxiety should be reduced for IoT technology to be implemented effectively. In this context, transparent communication strategies and training programs can be suggested to improve individuals' perception of IoT technologies.

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Conflict of Interest: On behalf of all authors, the corresponding author declares that there is no conflict of interest.

Ethics Approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Ethics Committee Approval was received for this research from the Istanbul Aydin University Social and Human Sciences Ethics Committee with the decision number 2024/12 dated 14.11.2024.

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