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The Moderating Role of Perceived Internal Marketing Activities in Call Centre Employees' Artificial Intelligence Anxiety and Organisational Commitment

Çağrı Merkezi Çalışanlarının Yapay Zeka Kaygısı ve Örgütsel Bağlılığı Üzerinde Algılanan İç Pazarlama Faaliyetlerinin Düzenleyici Rolü

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Abstract

Aim: This study aims to determine the moderating role of perceived intrinsic marketing activities in the relationship between call center employees' AI anxiety and organizational commitment.

Method: For this purpose, data were collected from 398 call center employees working in call centers located in 12 provinces of Turkey (Adana, Adıyaman, Ankara, Antalya, Diyarbakır, Elazığ, Gaziantep, İstanbul, Kilis, Kocaeli, Malatya, and Samsun) through an online questionnaire. Structural Equation Modeling was used to examine the relationships between the variables.

Findings: The correlation analysis results indicate that there is no significant relationship between 'Intrinsic Marketing' and 'Organizational Commitment' and between 'Intrinsic Marketing' and 'Artificial Intelligence Anxiety' scales. However, multiple linear regression analysis results show that 'Intrinsic Marketing' plays an important role in 'Organizational Commitment', and 'AI Anxiety' has a significant and positive effect on 'Organizational Commitment'. Nevertheless, the combined effect of 'Intrinsic Marketing' and 'AI Anxiety' does not have a significant moderating effect on 'Organizational Commitment'.

Conclusion: The findings of this study indicate that while intrinsic marketing plays a significant role in enhancing organizational commitment, it does not moderate the relationship between AI anxiety and organizational commitment. Furthermore, AI anxiety itself has a positive and significant impact on organizational commitment. These results suggest that although intrinsic marketing contributes to employees' organizational commitment, its influence does not alter the effect of AI anxiety. The study provides valuable insights into the dynamics of AI-related concerns and internal marketing strategies in call centers.

Keywords

Organisational Commitment, Internal Marketing, Artificial Intelligence Anxiety, Call Centre Employees, Marketing

Öz

Amaç: Bu çalışma, çağrı merkezi çalışanlarının yapay zeka kaygısı ile örgütsel bağlılığı arasındaki ilişkide algılanan içsel pazarlama faaliyetlerinin düzenleyici rolünü belirlemeyi amaçlamaktadır.

Yöntem: Bu amaç doğrultusunda, Türkiye'nin 12 ilinde (Adana, Adıyaman, Ankara, Antalya, Diyarbakır, Elazığ, Gaziantep, İstanbul, Kilis, Kocaeli, Malatya ve Samsun) faaliyet gösteren çağrı merkezlerinde çalışan 398 kişiden çevrimiçi anket yoluyla veri toplanmıştır. Değişkenler arasındaki ilişkileri incelemek için Yapısal Eşitlik Modellemesi kullanılmıştır.

Bulgular: Korelasyon analizi sonuçları, 'İçsel Pazarlama' ile 'Örgütsel Bağlılık' ve 'İçsel Pazarlama' ile 'Yapay Zekâ Kaygısı' ölçekleri arasında anlamlı bir ilişkinin bulunmadığını göstermektedir. Ancak, çoklu doğrusal regresyon analizi sonuçlarına göre, 'İçsel Pazarlama'nın 'Örgütsel Bağlılık' üzerinde önemli bir rol oynadığı ve 'Yapay Zekâ Kaygısı'nın 'Örgütsel Bağlılık' üzerinde anlamlı ve pozitif bir etkisinin olduğu belirlenmiştir. Bununla birlikte, 'İçsel Pazarlama' ve 'Yapay Zekâ Kaygısı'nın birleşik etkisinin 'Örgütsel Bağlılık' üzerinde anlamlı bir düzenleyici etkisi bulunmamaktadır.

Sonuçlar: Bu çalışmanın bulguları, içsel pazarlamanın örgütsel bağlılığı artırmada önemli bir rol oynadığını ancak yapay zekâ kaygısı ile örgütsel bağlılık arasındaki ilişkiye düzenleyici bir etkisinin olmadığını ortaya koymaktadır. Ayrıca, yapay zekâ kaygısının örgütsel bağlılık üzerinde anlamlı ve pozitif bir etkisi olduğu tespit edilmiştir. Bu sonuçlar, içsel pazarlamanın çalışanların örgütsel bağlılığına katkı sağladığını ancak yapay zekâ kaygısının etkisini değiştirmedikini göstermektedir. Çalışma, çağrı merkezlerinde yapay zekâ ile ilgili kaygılar ve içsel pazarlama stratejileri arasındaki dinamiklere dair değerli içgörüler sunmaktadır.

Anahtar Kelimeler

Örgütsel Bağlılık, İçsel Pazarlama, Yapay Zekâ Kaygısı, Çağrı Merkezi Çalışanları, Pazarlama

Introduction

Today's business world is undergoing a process of continuous change and technological transformation. At the forefront of these changes are artificial intelligence (AI) technologies used to optimize business processes, improve customer service and increase operational efficiency. The call center industry has been significantly affected by this technological transformation and its employees may face the necessity to adapt to new dynamics in their daily work life.

Call center employees may show various emotional reactions to artificial intelligence applications that replace traditional business processes and automate many tasks. In this context, it is important to understand the psychological effects of artificial intelligence on employees, especially to examine the possible consequences of these effects on organizational commitment both academically and practically. The main purpose of this study is to examine call center employees' anxiety about artificial intelligence and the potential effects of this anxiety on their organizational commitment levels. Furthermore, another main objective of this study is to understand how intrinsic marketing activities can play a moderating role in the relationship between employees' AI anxiety and their organizational commitment. A review of the literature reveals that many studies have been conducted on call centers (Gans et al., 2003; Dean, 2004; Brown et al., 2005) and call center technologies (Aksin et al., 2007). However, there is no study on the role of perceived intrinsic marketing activities between call center employees' artificial intelligence anxiety and their organizational commitment.

The main problem of the research is to understand the artificial intelligence anxiety of call center employees, the possible effects of this anxiety on organizational commitment, and how intrinsic marketing activities can play a moderating role in the relationship between this anxiety and organizational commitment. This main problem is detailed under the following subheadings:

- How do call center employees perceive this technology when they encounter the integration of artificial intelligence applications into their work processes? Does artificial intelligence cause a certain anxiety in employees? What are the effects of these concerns on employees' daily work life and organizational commitment?

- What is the relationship between employees' AI anxiety and their organizational commitment? How can AI anxiety make a difference on employees' affective commitment, normative commitment and continuance commitment?

- Internal marketing activities have a critical role in explaining the changes in the organization to employees, preparing them for these changes and increasing their commitment to the organization. Can internal marketing activities play a mediating role between AI anxiety and organizational commitment? How might these activities affect employees' AI anxiety and shape their level of organizational commitment?

- The research should provide recommendations to reduce the negative effects or increase the positive effects. In particular, how can employees' AI anxiety be managed and how can this anxiety be transformed into positive organizational commitment through intrinsic marketing activities?

Looking at the studies examining the factors that may affect the career of the individual in business life in the context of artificial intelligence, it is seen that artificial intelligence anxiety is a prominent issue (Gherheş, 2018; Wang & Wang, 2022; Rilho, 2019; Terzi, 2020; Akkaya et al., 2021). Employee engagement is critical for the sustainable success of organizations. In this context, this study, which focuses on the effects of call center employees' AI concerns on organizational commitment, is expected to make a significant contribution to marketing, business psychology and organizational behavior literature.

Conceptual Framework

Concept of Artificial Intelligence

The term was coined by John McCarthy at a conference in Dortmund in 1956 and has since been widely accepted in the world of technology and science. Artificial intelligence includes abilities such as making logical inferences, learning and adaptation, solving complex problems, adapting to various environments and learning from human experiences. In the words of Pirim (2006), artificial intelligence can be summarized as the science of computers that can imitate human thought. Lillehaug and Lajoie (1998) define artificial intelligence as a branch of science that aims to develop computer systems in areas associated with human intelligence such as visual perception, speech, recognition, decision making and language translation. The main reason for the wide range of definitions of artificial intelligence is that the term is used in a wide range of fields, from engineering to psychology and from sociology to medicine. The current level of technological progress, especially when the advances in artificial intelligence technologies are taken into account, shows how artificial intelligence affects human life and the business world, and this situation allows us to call the period we live in the 'artificial intelligence era' (Özçelik, 2022).

Artificial intelligence systems can be defined as machine learning tools that can quickly process data, identify trends and make these predictions using various algorithms. These systems can detect speech, analyze visuals and assess individual attributes, such as mood and accuracy. While they lack the intuitive abilities of humans, these tools can process data very quickly and can analyze large data sets in seconds to identify important patterns. They can also use the information from these analyses to make predictions and maintain a continuous learning process (Ahmed, 2018).

As Jarrahi (2018) points out, no matter how advanced artificial intelligence systems are, they may be limited in areas that require human qualities such as intuitive thinking, creativity and imagination. The fact that AI lacks human qualities such as emotional intelligence invalidates the idea that it poses a threat to humanity; the real concern should be the malicious use of this technology (Tugay & Tugay, 2019). AI's characteristics such as creativity, intuition and imagination are critical factors that affect people's trust in this technology. To address these trust issues, efforts are underway to integrate human-like common sense and intuition capabilities into AI. However, while some researchers believe that this integration is possible, others believe that it cannot be realized (İşgüzar, 2021).

One of the areas most affected by artificial intelligence is job positions. A study published in 2017 by the McKinsey Global Institute analyzed the job positions that will emerge and disappear due to automation by 2030. According to the study, the professional fields of between 75 million and 375 million people will be transformed and new skills will be needed.

Similarly, it is estimated that between 400 million and 800 million individuals will need to seek new job opportunities as a result of automation (Manyika et al., 2017). In light of these predictions, it is clear how critical the need for people to find jobs is. In order to adapt to these changes in the world of work, it has become inevitable to acquire new skills and revise career goals (Wang & Wang, 2022).

Artificial intelligence technologies are equipped with computational speed and storage capacity, providing computational capability for cognitive intelligence and sensory intelligence such as vision, hearing and touch, making significant contributions to perceptual intelligence. It also makes an effective contribution to decision-making processes by discovering valuable patterns based on objective criteria using data analysis capabilities (Liu, Chang, Forrest, & Yang, 2020, pp. 2-3). The possibility that artificial intelligence technologies will surpass human intelligence in the future, that it will develop itself to be more capable and advanced than its previous version with each new update, and that with this evolution, it may dominate many areas of society, which may lead to irreparable harmful effects, increases the reservations of many professionals against artificial intelligence (Saporsky, 2007 p. 125; Civelek, 2009, p. 105).

The rapid advancement of artificial intelligence applications in many sectors such as health, education, law, astronomy and engineering has become indispensable in daily life. As Çelebi and İnal (2019) state, going beyond

the debate on “whether the machine can think”, issues such as the responsibility of artificial intelligence and the possibility of direct intervention in human life and the ethical problems that these interventions may cause have started to come to the agenda. The ever-evolving nature of artificial intelligence raises concerns in people, which suggests that the issue of artificial intelligence anxiety should be examined.

1.2. Artificial Intelligence Anxiety

Today, many companies use artificial intelligence technologies or carry out various studies in this field. In general terms, artificial intelligence is considered as a lifeless and emotionless imitation, which is the biggest difference from human intelligence. From another point of view, most of the studies in the field of artificial intelligence aim to surpass human intelligence and progress in this direction (Firat, 2018, p. 26). AI anxiety refers to feelings of fear or anxiety about the uncontrollability of artificial intelligence technologies. This concept can be defined as a state of intense fear that arises as a result of the changes and problems caused by artificial intelligence applications in individual and social life (Wang & Wang, 2022, p. 622). This technology, which was born from the idea of the existence of an artificial intelligence similar to human thinking ability, affects the activities of many businesses and organizations today. While artificial intelligence offers various advantages in areas such as data analysis, learning algorithms and automated decision-making processes, it also brings important issues such as ethics and privacy. In this context, it is important to establish carefully regulated policies and standards for the effective and sustainable use of AI technologies. It is necessary to evaluate this new technology with both its positive aspects and potential risks and to guide it in the most beneficial way for society.

Beyond supporting organizational functions, artificial intelligence plays an influential role in activities performed by supporting humans. This technology has the advantage of displacing humans and even performing these tasks more effectively than human intelligence. However, since there are human-specific situations within natural intelligence, it is not thought that artificial intelligence will completely replace human intelligence at this stage (Dülger, 2018, p. 7). In this context, the rapid development of artificial intelligence technology has the potential to optimize business processes, increase efficiency and improve decision-making processes. This situation shows that a potential anxiety may arise in the workforce against artificial intelligence technologies. It is stated that this anxiety, which is effective in people’s approach to these technologies, can create positive effects that can open the door to a positive interaction with AI technologies, or it can result in negative effects such as perceiving AI as a threat and avoiding these technologies (Ha, Page, & Thorsteinsson, 2011, p. 18). In dealing with the complex emotions of the workforce towards AI technologies, it is stated that developing a positive perspective and interacting with these technologies can contribute to a more balanced and safe adaptation of society to these technologies. It is emphasized that it is important to transform the social perspective on artificial intelligence into a positive one (Akkaya, Özkan, & Özkan, 2021, pp. 1129-1130). In addition to the benefits offered by artificial intelligence technology, it is also claimed that there may be potential threats to humanity. Basically, it is stated that it is a logical idea that new risks arise with the emergence of new technologies, but what is essential is to manage these threats effectively and prevent them from causing negative consequences greater than the advantages they provide.

Artificial intelligence is a technological reality not only of the future but also of today. This technology, which aims to displace people in repetitive jobs by using their expertise and to influence decision-making processes, especially in areas such as marketing and management, is creating a major change in the business world. In this context, one of the most important effects of artificial intelligence technology in the future is that people have the potential to differentiate (Arikuşu, 2017, p. 67).

1.3. Organizational Commitment

Merely having the necessary knowledge and skills may not be sufficient for the success of the organization. The real success of organizations is directly related to the effective integration of employees’ knowledge and skills into business processes. At the same time, the development of a positive attitude and strong commitment of employees towards their organizations stands out as a critical element for success. In this context, organizational commitment is an indispensable concept for organizations (Bolat and Bolat, 2008).

Various perspectives have come to the fore in the classification of the concept of organizational commitment, as well as in its definition. In the literature, there are two basic approaches to the classification of organizational commitment: “attitudinal” and “behavioral” approaches. The attitudinal approach focuses on employees’ behavioral intentions, such as the desire to stay at work, the desire to exert more effort for the good of the job, or identification with the goals of the job. The first studies on the behavioral approach were conducted by Becker (1960). Becker tried to explain the reason why an individual exhibits consistent behaviors and these consistent behaviors through fringe benefits. According to this theory, an individual invests in the organization and receives fringe benefits such as salary

plans and severance pay during his/her time in the organization. If an individual thinks that the monetary, social and/or psychological losses of leaving the organization are too high and that he/she cannot afford these losses, he/she feels obliged to remain loyal to the organization (Seymen, 2008).

One of the most widely accepted and used organizational commitment models is the model of Meyer and Allen (1991) (Cohen et al., 2000). According to this model, organizational commitment consists of three basic dimensions: affective commitment, continuance commitment, and normative commitment. Affective commitment includes employees feeling emotional closeness to the organization, embracing the values of the organization, and striving to achieve its goals. At the same time, it refers to the employee's desire to remain a part of the organization voluntarily. Continuance commitment means that employees prefer to remain in the organization out of necessity, considering the high cost of leaving the organization. Normative commitment refers to employees feeling attached to the organization because they believe that they should not leave the organization out of a sense of moral duty and responsibility (Allen and Meyer, 1990).

1.4. Internal Marketing Activities

The concept of internal marketing is considered as an approach that aims to motivate employees, primarily called internal customers, and to play an active role in achieving organizational goals in order to ensure external customer satisfaction in sectors where employees constantly interact with customers, such as in the service sector (Çoban, 2017). In other words, internal marketing is defined as the positive development of relations between employees within the organization, strengthening cooperation and division of labor, and ensuring organizational integrity as a result of these processes (Fettahlioğlu et al., 2016). In the context of these definitions, it is understood that the internal marketing approach covers processes that are centered on employees and include external marketing-like activities aimed at them (Arık, 2021).

Whereas in the past marketing strategies were directed only at external customers, today these strategies have expanded to include employees (Rafiq and Ahmed, 2000). Employees in the business are no longer seen only as labor resources but also as customers and constitute the internal market of the business (Gummesson, 1987).

Internal marketing refers to the process of applying marketing strategies and techniques applied to external customers to internal customers (i.e. employees) (Lings, 2004). According to the intrinsic marketing perspective, employee satisfaction is a prerequisite for external customer satisfaction and loyalty (George, 1990). In sum, internal marketing is the key to external marketing success and contributes to the effective development of external marketing. When internal marketing is ignored, external marketing can result in failure.

The concept of internal marketing includes several important elements in meeting the expectations and needs of employees and ensuring customer orientation. In this context, effective communication, motivation, employee training and development, and strategies to attract and retain qualified employees play a key role. Human resource management functions have also traditionally been at the center of internal marketing. In this context, the three-dimensional intrinsic marketing elements proposed by Foreman and Money (1995) stand out. Vision involves sharing the desired future image of the organization with employees, while rewarding aims to evaluate performance and reward successful employees. Development refers to the training of employees to adapt to the internal and external environment. All these elements support the successful implementation of internal marketing and contribute to the sustainable success of organizations. It is emphasized that businesses that prioritize their internal customers are more successful in gaining customers in the market in the long term and are in a more advantageous position in terms of ensuring external customer satisfaction (Kutluk Bozkurt & Tokatlı, 2017).

Methods

Analytical Method

The purpose of this study is to investigate the moderating role of perceived intrinsic marketing activities on call center employees' AI anxiety and organizational commitment. Structural Equation Modeling (SEM) was used to examine the relationship between the variables. The hypothesis model is shown in Figure 1.

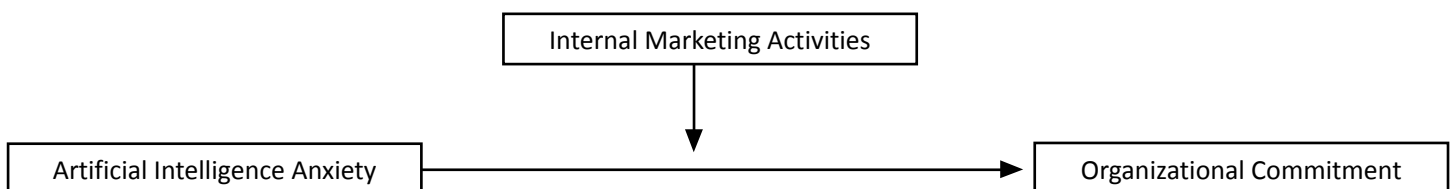


Figure 1. Research model

Hypotheses:

H₁: Artificial intelligence anxiety has an effect on organizational commitment.

H₂: Intrinsic marketing activities have a moderating role in the effect of AI anxiety on organizational commitment.

H₃: Internal marketing has an effect on organizational commitment is determined as.

Ethics Committee Approval

Ethics Committee Permission was obtained with the Decision No. 3 dated 26.06.2024 of Malatya Turgut Özal University, Social and Human Sciences Research Ethics Committee.

Data Collection Tools and Sampling

The sample of this study consists of employees working in call centers located in 12 provinces of Turkey (Adana, Adiyaman, Ankara, Antalya, Diyarbakır, Elazığ, Gaziantep, İstanbul, Kilis, Kocaeli, Malatya, Malatya and Samsun). Call center employees participated voluntarily and 398 data were obtained online.

The data were collected with a questionnaire form. This form consists of four construct categories: demographic characteristics, artificial intelligence anxiety, organizational commitment and intrinsic marketing activities. Demographic characteristics consist of 5 questions. Artificial Intelligence Anxiety Scale was developed by Wang and Wang (2019) and translated into Turkish by Akkaya et al. (2021). Artificial Intelligence Anxiety Scale consists of 16 items and 4 dimensions (learning, job change, sociotechnical blindness and artificial intelligence configuration). Organizational Commitment Scale was developed by Penley and Gould (1988) and adapted into Turkish by Ergün and Çelik (2019). The scale consists of 15 items and 3 dimensions (forced commitment, moral commitment and self-interested commitment). The last scale is the Internal Marketing Activities Scale developed by Foreman and Money (1995). This scale consists of 15 items and 3 dimensions (vision, development and reward). In the questionnaire, responses were taken with a 5-point Likert scale (1=strongly disagree, 5=strongly agree).

Data Analysis and Findings

To evaluate the construct validity of the scales, an exploratory factor analysis (EFA) was performed. The findings, summarized in Table 1, present the factor loadings and the proportion of the total variance accounted for by each factor, providing evidence of the scales' structural robustness.

Table 1. Validity results of the scales

Scales	Kaiser-Meyer-Olkin (KMO)	Bartlett's Test of Sphericity			Variance %
		x ²	sd	p	
Internal Marketing	0,947	5977,86	105	0,000	78,59
Organizational Commitment	0,784	2793,12	105	0,000	62,66
Artificial Intelligence Anxiety	0,931	6448,55	120	0,000	81,79

The adequacy of the sample for factor analysis was assessed using the Kaiser-Meyer-Olkin (KMO) measure. Results indicated that the intrinsic marketing scale had a KMO value of 0.947, the organisational commitment scale scored 0.784, and the artificial intelligence anxiety scale showed a KMO of 0.931. The analyses were conducted with the SPSS 22.0 software package. Considering that KMO values should be above 0.50 to be deemed acceptable (Field, 2000), it is clear that the sample size meets this requirement. The factor analysis revealed that 78.59% of the total variance in intrinsic marketing, 81.79% in artificial intelligence anxiety, and 62.66% in organisational commitment were accounted for.

In order to determine the reliability of the scales, Cronbach's Alpha coefficients should be examined. Table 2 shows how many items the scales consist of, Cronbach's alpha coefficients, mean responses to the scales and standard deviations.

Table 2. Cronbach's Alpha coefficients

	Number of Items	Cronbach Alpha	Average	Standard Deviation	Min.-Max.
Internal Marketing	15	0,966	3,37	1,01	1 – 5
Organizational Commitment	15	0,766	3,44	0,56	1 – 5
Artificial Intelligence Anxiety	16	0,959	3,04	0,91	1 – 5

As can be seen in Table 2, the statistical analyses performed in this study include the evaluation of the 'Intrinsic Marketing', 'Organisational Commitment' and 'Artificial Intelligence Anxiety' scales in terms of reliability. The Intrinsic Marketing scale was structured with 15 items and the Cronbach's Alpha reliability coefficient was calculated as 0.966. This high value indicates that the scale has a high degree of internal consistency. The mean score was 3.37 and the standard deviation was 1.01. The Organisational Commitment scale was evaluated on the average of 15 items and Cronbach's alpha was calculated as 0.766, which indicates that the scale has an acceptable level of reliability. The mean score of this scale is 3.44 and the standard deviation is 0.56. Finally, the Artificial Intelligence Anxiety scale consists of 16 items and the Cronbach's Alpha value is 0.959, which indicates a high level of reliability. The mean score of this scale is 3.04 and the standard deviation is 0.91.

As the next step in the analysis, it was essential to assess whether the dataset satisfied the assumption of normality. Therefore, a normality test was conducted on the collected data to verify its distribution. As the results are shown in Table 3 below, skewness and kurtosis values were analysed since the p values were less than 0.05 in the Kolmogorov-Smirnov and Shapiro-Wilk normality tests.

Table 3. Normality test

	Kolmogorov-Smirnov			Shapiro-Wilk			Skewness	Kurtosis
	Statistics	df	Sig.	Statistics	df	Sig.	Statistics	Statistics
Internal Marketing	0,094	398	0,000	0,961	398	0,000	-0,420	-0,393
Organizational Commitment	0,072	398	0,000	0,956	398	0,000	0,213	2,106
Artificial Intelligence Anxiety	0,076	398	0,000	0,983	398	0,000	-0,121	-0,190

In deciding whether to use parametric or nonparametric tests for the analysis, for sample sizes larger than 300, the absolute values of skewness and kurtosis are considered without considering z values (Özkan & Salepçioğlu, 2022). According to Lorcu (2015), Skewness and Kurtosis values should be between +1 and -1.

A review of Table 3 reveals that the absolute skewness values being below 1 suggest a normal distribution for the intrinsic marketing and artificial intelligence anxiety variables, while the organizational commitment variable deviates from normality. It is understood that parametric tests can be applied for intrinsic marketing and artificial intelligence anxiety scale and nonparametric tests can be applied for the other scale.

Relationships Between Variables

Within the scope of the research model, correlation analysis was applied to determine the relationships between the variables. The results of the correlation analysis applied to show the relationships between variables are presented in Table 4.

Table 4. Examination of relationships between variables

Variables	N	r	p
Internal Marketing	398	0,017	0,735
Organizational Comm.			
Internal Marketing	398	-0,027	0,585
AI Anxiety			
Organizational Comm.	398	0,312**	0
AI Anxiety			

**: $p < 0,01$ r: Spearman Correlation Coefficient

r	Relationship level	Relationship direction
0	No relationship	r= - negative relationship
0,01 – 0,29	Lower	r= + positive relationship
0,30 – 0,69	Middle	
0,70 – 0,99	High	
1	Perfect relationship	

Spearman’s correlation coefficient is used especially when non-parametric data analysis is required. This analysis method is preferred when the data do not follow a normal distribution and/or are ordinal. A common situation in research is the presence of ordinal data, such as scaled survey responses. Spearman’s correlation is ideal for measuring monotonic relationships in such data, i.e. if the value of one variable increases while the value of another variable increases or decreases regularly, Spearman can detect this relationship. On the other hand, Pearson’s correlation coefficient measures linear relationships and is a more appropriate option for data that follow a normal distribution. In this study, Spearman correlation coefficient was used to assess the relationships between variables. This choice is based on factors such as the fact that the data set does not reflect the characteristics of a normal distribution and that the scales are ordinal in nature. The results of Spearman correlation analysis provide important information about the nature and strength of the relationship between variables, which plays an important role in interpreting the overall findings of the study.

When Table 4 is examined, ‘N’ indicates the sample size; ‘r’ indicates the Spearman Correlation Coefficient; and ‘p’ indicates the p-value. A statistically significant and moderate correlation was found between “Organizational Commitment” and “AI Anxiety” variables ($r = 0.312, p < 0.01$). However, no significant correlation was found between “Internal Marketing” and “Organizational Commitment” and between “Internal Marketing” and “AI Anxiety” variables.

Moderating Role Analysis

A moderating variable is characterized as a factor that influences the strength and direction of the relationship between the independent and dependent variables (Gürbüz & Şahin, 2018). In this study, intrinsic marketing was determined as the moderating variable. Multiple linear regression analysis was used to determine whether intrinsic marketing has a moderating role in the effect of AI anxiety on organizational commitment. In addition, the interaction term between “Intrinsic Marketing” and “Artificial Intelligence Anxiety” was included in the model and the moderating role was analyzed. The results of this analysis are valuable for understanding the effects of the variables on “Organizational Commitment” and the relationships between them. The model for exploring the moderating role is shown in Figure 2.



Figure 2. Moderating role analysis

The regression coefficients obtained according to the analysis conducted with this model are shown in Table 5.

Table 5. Regression coefficients

			Standardized coefficients	Standard error	P
Organizational Commitment	←	Internal Marketing	0,129	0,047	0,006
Organizational Commitment	←	AI Anxiety	0,354	0,046	***
Organizational Commitment	←	Interaction	0,077	0,037	0,097

According to the multiple linear regression analysis results shown in Table 5, the scale of Internal Marketing has a direct significant effect on “Organizational Commitment” ($p = 0.006$). This indicates that “Internal Marketing” plays an important role on “Organizational Commitment” in this context. On the other hand, the “Artificial Intelligence Anxiety” scale has a significant and positive effect on “Organizational Commitment” ($p = 0.001$). This finding indicates

that employees' AI anxiety is an important factor on their organizational commitment. The interaction term, i.e. the combined effect of "Intrinsic Marketing" and "AI Anxiety", does not have a significant effect on "Organizational Commitment" ($p = 0.097$). This result indicates that the combined effect of the two independent variables does not have a significant moderating effect on "Organizational Commitment".

This analysis highlights the importance of the separate effects of "AI Anxiety" and "Intrinsic Marketing" on "Organizational Commitment", but reveals that the interaction does not have a significant and moderator role. These findings can contribute to the broader research on organizational commitment and provide a basis for more detailed research in related areas.

Conclusions and Recommendations

In this study, the effects of call center employees' artificial intelligence anxiety on organizational commitment and the moderator role of intrinsic marketing activities in this relationship were investigated. The analyses and findings are as follows:

Artificial intelligence anxiety has a significant effect on organizational commitment ($p=0.001$). In this context, hypothesis H1 is accepted. This shows that call center employees' concerns about artificial intelligence technologies can affect their organizational commitment. The fact that high AI anxiety can increase or decrease organizational commitment indicates that organizations should develop strategies to manage these anxieties.

It was found that intrinsic marketing activities have a significant direct effect on organizational commitment ($p=0.006$). In this context, hypothesis H3 is accepted. This suggests that internal marketing practices play a critical role in strengthening employees' organizational commitment. Intrinsic marketing strategies can increase employee motivation, satisfaction and commitment, which in turn can positively affect organizational performance.

The combined effect of intrinsic marketing and AI anxiety does not have a significant moderating role on organizational commitment ($p=0.097$). In this context, H2 hypothesis is rejected. This finding indicates that intrinsic marketing does not significantly regulate the effect of AI anxiety on organizational commitment. It is understood that intrinsic marketing does not directly change the effects of AI anxiety on organizational commitment.

Businesses should develop comprehensive training programs and support mechanisms to reduce the effects of AI technologies on employees. These trainings can provide information on how AI is integrated into business processes, how employees' roles will change, and how to manage AI-related concerns. Transparency about AI technologies can reduce employee anxiety about them. Informative seminars and workshops can be organized to explain how AI systems work and how employees will interact with them.

Within the scope of internal marketing strategies, performance evaluation systems and reward mechanisms should be effectively implemented to increase employee motivation. Rewarding successful employees can increase organizational commitment. Internal marketing activities should be organized to ensure that employees have a vision that is aligned with organizational goals. In this way, employees' commitment and motivation to organizational goals can increase.

Future research could benefit from examining the moderating role of *intrinsic marketing* on the relationship between *AI anxiety* and *organizational commitment* by employing larger sample sizes and including participants from various sectors. Moreover, further studies may investigate the interplay between *Intrinsic Marketing* and *AI anxiety* in relation to other potential moderating variables, such as *leadership style*, *job satisfaction*, and *job security*, in order to provide a more comprehensive understanding of the factors influencing organizational commitment.

Declarations

Ethics Committee Approval: Ethics Committee Permission was obtained with the Decision No. 3 dated 26.06.2024 of Malatya Turgut Özal University, Social and Human Sciences Research Ethics Committee.

Author Contributions

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Summary

This study aims to examine the moderating role of perceived internal marketing activities in the relationship between call center employees' artificial intelligence (AI) anxiety and organizational commitment. It is well known that technological advancements, especially in service-intensive businesses such as call centers, have led to significant transformations. The integration of AI technologies has a decisive impact on employees' job security, job descriptions, and psychological well-being.

For the research method, data were collected through surveys from 398 participants working in call centers located in 12 different provinces of Turkey (Adana, Adiyaman, Ankara, Antalya, Diyarbakır, Elazığ, Gaziantep, İstanbul, Kilis, Kocaeli, Malatya, and Samsun). The data were analyzed using Structural Equation Modeling. The analyses revealed that AI anxiety does not have a significant effect on organizational commitment. This finding suggests that call center employees' concerns about AI technologies may influence their organizational commitment. The fact that high AI anxiety can either increase or decrease organizational commitment indicates that businesses should develop strategies to manage these concerns.

It was found that internal marketing activities have a significant and direct effect on organizational commitment. This finding demonstrates that internal marketing practices play a critical role in strengthening employees' organizational commitment. Internal marketing strategies can enhance employee motivation, satisfaction, and commitment, thereby positively impacting organizational performance.

The combined effect of internal marketing and AI anxiety does not have a significant moderating role in organizational commitment. This finding indicates that internal marketing does not significantly regulate the effect of AI anxiety on organizational commitment. It is understood that internal marketing does not directly alter the impact of AI anxiety on organizational commitment.

This study makes a significant contribution to the literature by enhancing our understanding of how call center employees respond to technological changes introduced by artificial intelligence. The results underscore the importance of internal marketing strategies in mitigating employees' AI-related concerns and fostering greater organizational commitment

Businesses should develop comprehensive training programs and support mechanisms to mitigate the effects of AI technologies on employees. These training programs can provide information on how AI is integrated into business processes, how employee roles will change, and how to manage AI-related concerns. Ensuring transparency about AI technologies can help reduce employees' anxiety about them. Informative seminars and workshops can be organized to explain how AI systems work and how employees will interact with them.

Within the scope of internal marketing strategies, performance evaluation systems and reward mechanisms should be effectively implemented to increase employee motivation. Rewarding successful employees can enhance organizational commitment. Internal marketing activities should be designed to ensure that employees have a vision aligned with organizational goals. In this way, employees' commitment and motivation toward organizational goals can be increased.

Future research can examine the moderating role of internal marketing in the effect of AI anxiety on organizational commitment with larger sample groups and across different sectors. Additionally, future studies can explore the relationships between internal marketing and AI anxiety with other potential moderating variables such as leadership style, job satisfaction, and job security.