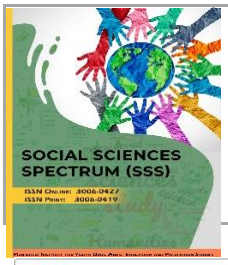

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Investigating the relationship of AI Attitudes with Attention and Proactive Behavior among Employees in Karachi

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Abstract

This study investigates the relationship between Artificial Intelligence (AI) attitudes, attention control and proactive behavior among employees in Karachi, Pakistan. With the increasing integration of AI technologies in organizational settings understanding employees' psychological and behavioral responses has become essential. A quantitative correlational research design was employed using a cross-sectional survey method. Data were collected from 300 employees (150 males and 150 females) working in various industries in Karachi through standardized instruments: Artificial Intelligence Attitude Scale (AIAS-4), Attention Control Scale (ATTC) and Proactive Behavior Scale. Descriptive statistics and Pearson correlation analysis were applied to examine the relationship among variables. The results revealed a weak and non-significant relationship between AI attitudes and attention control ($r = .105$, $p > .05$). However, a statistically significant moderate positive relationship was found between AI attitudes and proactive behavior ($r = .302$, $p < .05$). Reliability analysis indicated acceptable to excellent internal consistency across scales (α ranging from .705 to .948). The findings suggest that while employees' attitudes toward AI may not directly influence their attention levels but greater attention control is associated with enhanced proactive behavior. The study provides practical implications for organizations seeking to improve AI adoption through training, awareness and employee engagement strategies.

Keywords: Artificial Intelligence, Attention, Employees, Organizations, Proactive Behavior, Karachi.

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Introduction

The rapid expansion of Artificial Intelligence (AI) in organizational settings has generated mixed reactions among employees ranging from enthusiasm to apprehension regarding job security and technological displacement. About 40% of the participants in the study conducted by Luhana, Memon and Khan (2023) were skeptical of AI application. While job security is a valid concern that there is more to add on AI being used at workplaces than it appears on the surface.

Use of AI is gaining popularity not just among employers, but also in fields like academia, medicine, entertainment and many others all around the world. It is imperative that its use is legitimized majorly because it has become almost unavoidable. Based on the scenario-based approach conducted by Kochling, Wehner and Ruhle (2024), they concluded that AI applications can be used as efficient decision support tools while advocating for human intervention and supervision in the final decision-making process. Coupled with human influence benefits from AI tools can be maximized - relying solely on AI is discouraged in research, hence, the fear of employees losing jobs can be avoided.

The aim of this study then is to dig deeper into the prejudice that employees hold against the use of AI when if used responsibly and under the relevant context AI can help make work more efficient (Kochling, Wehner and Ruhle, 2024). We plan to look at the demographic factors such as: age, gender, qualification of an employee, the type of industry they belong to, their usage of AI tools and the frequency of this usage that affect AI attitudes, attention and proactive behavior among employees particularly those located in Karachi. Our research will further build on the relationship of 'use of AI' and identified (dependent) variables, namely employee AI attitudes, their attention and proactive behavior at work. We will also be exploring the interplay of relationships between AI attitudes, employee attention and proactive behavior to understand how one might affect another.

Despite its prevalent use companies struggle to implement the use of AI on an organizational level owing to the negative perceptions that employees hold (Lichtenthaler, 2020). Some employees on the other hand, are not entirely against the use of AI since it makes tasks quicker and easier. Lichtenthaler (2020) explores this dual nature of employee attitude towards AI which varies depending on the circumstances in which AI is being used. This study is an attempt to gain insight into this paradoxical nature of employee attitudes towards AI and with that we also aim to understand how their attention and behaviors are altered by the use of AI at work and if one is related to other.

Research by Ansari and Ahmed (2024) suggests that it is the behavioral environment of AI tools that has the greatest impact on employee work efficiency. It "demonstrates that it is the dynamic elements at the workplace environment, interaction and distraction that are perceived as having the greatest positive and negative influences on individual work productivity" (Ansari and Ahmed, 2024) as opposed to the common misconception that AI can negatively influence productivity of the employees. Contrary to popular reductive understanding of AI usage at work Xu, Xue and Zhao (2023) concluded that using AI in daily tasks at work can in fact help employees avoid both redundant and complex tasks, making them feel more confident and relaxed in their job roles. They further confirmed that there is a positive association between being open to use AI at work, (or 'opportunity perception' towards AI) and career satisfaction (Xu, Xue and Zhao, 2023). Similarly, Kasim et al. (2024) suggested that integration of AI tools in the workplace can not only improve employee efficiency but training to better equip these employees and make them aware about AI can help them use it effectively in their respective roles.

Problem Statement

The aim of this research is to explore the relationship between employees and their attitudes regarding artificial intelligence, attention levels when using AI and proactive behavior at work place. As AI is one of the most renowned technologies in contemporary organizations there is a scarcity of research exploring the link between these factors and how these factors are influencing employee performance and overall engagement. So this work tries to find and understand the research gap by investigating the interaction between AI attitudes, attention and proactive behavior among different organizations. The main purpose of this study is to provide insights for organizations on how to effectively use AI in their work and also strengthen productive and positive work environments. The analysis will explore the relationship between employees' attitudes with respect to AI, attention levels when using AI and their proactive behavior in the organization. The study will focus on only Pakistani employees from different organizations. Meanwhile the findings will not be universally applicable; it will provide valuable insights for workplaces and similar places that want to use AI productively and help in creating a positive work environment.

Research Objectives

1. To investigate the relationship between employees' attitudes toward AI and the level of attention.
2. To examine the relationship between employees' attention towards AI related tasks and their proactive behavior

Research Questions

1. What is the relationship between employees' attitudes toward AI and the level of attention?
2. What is the relationship between employees' attention towards AI related tasks and their proactive behavior?

Hypothesis

H1a: Employees' attitudes toward AI have a significant relationship with the level of attention.

H1b: Employees' attention towards AI related tasks have a significant relationship with their proactive behavior.

Significance of the study

The rapid development of Artificial Intelligence has modified organizational effectiveness and employee productivity in the workplaces. As the organizations in Karachi are increasingly using AI-tools, it is important to understand that how employees' attitudes towards AI affect their attention to a particular task and their proactive behavior.

Many organizations face difficulty in introducing AI due to refusal of employees'. Therefore, the goal is to investigate the relationship between AI attitudes, attention and proactive behavior among employees and to provide an insight about how positive attitudes toward AI will strengthen employees' focus and innovation.

The research can be beneficial for employees' as they will understand that how attitudes toward AI will enhance their job performance. The finding of this research can benefit HR managers to design AI related trainings and their implementation in a better way. In addition, policymakers can also use this research to encourage incorporation of AI.

This research will fill a gap in the literature by providing unique understanding that may differ from more developing countries by identifying the attitudes toward AI for its better incorporation. To understand the factors that influences levels of attention and proactive behavior. Furthermore, to enhance employees' engagement to ensure different organizations success.

Literature Review

Literature shows that Artificial Intelligence (AI) has transformed numerous organizations and industries changed the way businesses works and completely revolutionized the way pupils study as it drastically has a large impact on how students' studies and fulfil their curiosity requirements. Over the course of times as AI integration becomes demanding and somewhat more prevalent in which understanding employees' attitudes and behaviors towards AI is very vital and along with that how much influence AI has on employees' productivity levels and attention spans. Over the years numerous researches has religiously explored AI adoption in working environments and its impact on employees' productivity however studies focusing on developing countries like Pakistan are still lacking in this and comes under scarcity in research. This literature review's objective is to bridge this gap by examining and researching AI attitudes, attention spans in employees work times and proactive behavior among Karachi employees. AI has impacted differently on all three aspects which has defined below:

Different studies depict that employees' AI attitudes significantly influence adoption and usage. Adoption because of work quality and usage because of lack of time and quick and instant gratification. (Kurzweil, 2005; Li et al., 2019). AI attitudes comprise cognitive, affective and conative components (Wilson et al., 2017). Cognitive attitudes help employees to put less pressure on brain and make any decisions making about the subject very simple and useable (Davis, 1989). Affective attitudes involve around emotional responses, such as anxiety or excitement of getting quicker answers (Hassan et al., 2022). Conative attitudes include employees' behavior, intentions and actions which derives to use AI and choose it as first priority (Ajzen, 1991).

Attention spans play a vital role in using AI in workspaces affecting information processing, doing day to day tasks, at times make decision-making easy for employees and help them getting things done quicker than human beings and the time they spend in processing their thoughts (Moran, 2013). Employees' attention can be influenced by numerous factors including AI pattern, employees' knowledge and how they use it, their experience regarding it and organizational growth in bird's eye view (Kim et al., 2019).

Proactive behavior is always crucial for effective AI usage and flexibility of adopting in their daily routines. Employees who are usually into taking initiatives to improve their performance and adapt to quick technological changes are more likely to utilize AI technologies successfully (Bateman & Crant, 1993). Research also demonstrates that AI attitudes and proactive behavior are interconnected and share directly relationship with each other with healthy usage of AI attitudes leading to increased proactive behavior in employees and assist them to do more in less times (Lee et al., 2020).

Apart from AI individually, any organizations cultural values, such as team work and care, growth inclusion and diversity may influence AI attitudes in Pakistan (Rehman et al., 2020). In addition to that other organizational factors like leadership style, social and moral support provided by leaders, training programs and transparent communication also impact AI adoption (Alam et al., 2020).

This literature review emphasizes the importance of understanding AI attitudes in numerous organizations of Karachi, attention spans of employees who are used to use AI in their professional lives and proactive behavior and how it provides enrichment and enhancement amongst Karachi employees. Future research should investigate these factors in the Pakistani context, addressing cultural and organizational differences.

Despite the sudden spark in research about AI attitudes and behavior there is still a requirement for quantitative studies focusing on the complexities of AI adoption in developing countries like Pakistan. Furthermore, the literature sheds the light on the importance of understanding employees' pre perceptions and experiences in using AI. A study by Khan et al. (2020) discovered that employees' who are into using AI as daily helping tool and ease and come out of their comfort zones to adapt AI requirements in their professional development and work productivity. Similar research by Hassan et al. (2022) demonstrates that employees' emotional responses to AI such as instant gratification and over excitement impacted their willingness to use AI which as a result increased their performance as compared to years before AI. The intersection of AI attitudes, attention and proactive behavior is connected to each other and yet complex. This study aims to contribute to the existing literature by exploring how these factors plays a vital role and influence AI adoption among Karachi employees.

Theoretical Framework

Technology Acceptance Model (Davis, 1989)

The Technology Acceptance Model (Davis, 1989) posits that perceived usefulness and perceived ease of use determine technology adoption. Employees who perceive AI as beneficial and easy to use are more likely to develop positive attitudes which may influence their cognitive engagement (attention) and proactive workplace behavior.

Research Methodology

Research Design

In this research correlational research design was used to analyze the data. A survey strategy was used to collect the data through structured scales from employees in Karachi. The research adopted a cross-sectional time horizon collecting the data at a single time from the employees of different industries in Karachi.

Population and Sampling

The data was collected from 300 employees (i.e., 150 males, 150 females) from different industries in Karachi using AI technologies. We used stratified sampling technique to ensure that the employees' age ranges from 22 to 42 years belong from any industry and uses AI technologies.

Data Collection

The data collection consists of 3 parts (i.e., Informed Consent, Demographic Information and Scales).

Demographic Information

In this section of the research six variables i.e., age, gender, qualification, industry type, frequency of AI and usage of AI-tools were asked.

Artificial Intelligence Attitude Scale (AIAS-4)

The 4-items scale shows a mean score of 30.75 (SD = 5.891) and a Cronbach's alpha of 0.753 indicating good internal consistency. A 10-point Likert scale (1 = Not at all, 10 = Completely Agree) was chosen for the high test–retest reliability and easy to use.

Attention Control Scale (ATTC)

The Attention Control Scale (ATTC) is a 20-items scale showed a mean score of 50.30 (SD = 7.200) and a Cronbach's alpha of 0.705 is a self-report psychometric instrument developed to assess perceived capacity for voluntary attention control across two key domains: attentional focusing and attentional shifting. The ATTC requires respondents to rate the typical frequency of experiences relating to concentrating, ignoring distractions and flexibly directing focus using a 4-point Likert scale format (1 = almost never; 4 = always).

Proactive Behavior Scale (18 items)

The proactive behavior scale consists of 18 items scale shows a mean score of 68.58 (SD = 13.385) and a Cronbach's alpha of 0.948 with 3 dimensions and 6 items in total under each dimension. A Likert-type metric with five intervals has been used to answer the questions in the survey. The answers were as follows: "1- strongly disagree, 2- disagree, 3- agree or not agree, 4- agree, 5- strongly agree".

Procedure

In this research we administered three scales (i.e., Artificial Intelligence Attitude Scale, Attention Control Scale, Proactive Behavior Scale). Participants were requested to thoroughly read the informed consent and then sign it, fill the demographic information carefully. After the data collection processes, the data was analyzed for research findings.

Statistical Analysis

The data of the research was analyzed through descriptive statistics. To analyze relationship between the variables inferential statistics was applied (i.e., Correlation)

Ethical Considerations

The study was conducted in accordance with established ethical guidelines for research involving human participants. Informed consent was obtained from all participants prior to data collection. Participation was voluntary and respondents were informed of their right to withdraw at any time without penalty. Anonymity and confidentiality were ensured and no identifying information was collected. The data were used solely for academic purposes and securely stored to protect participants' privacy. The study posed minimal risk as it involved only self-report survey measures.

Results

Table 1: *Descriptive Statistics*

	AIAS	ATTC	PB
Mean	30.75	50.30	68.58
Standard Deviation	5.891	7.200	13.385
Skewness	-.624	-.462	-1.325
Kurtosis	.210	.747	2.290
Cronbach Alpha	.753	.705	.948

Note: Artificial Intelligence Attitude Scale (AIAS) – 4 items, Attention Control Scale (ATTC) – 20 items, Proactive Behavior (PB) – 18 items.

In *table 1*, the mean of AIAS is 30.75, ATTC is 50.30 and PB is 68.58. The standard deviation of AIAS is 5.891, ATTC is 7.200 and PB is 13.385. AIAS and ATTC have negative skewness, meaning their distributions are slightly skewed to the left. PB has a stronger negative skewness, indicating a more leftward skew. AIAS and ATTC have kurtosis slightly flatter (platykurtic). PB has a higher kurtosis of 2.290, indicating a more peaked (leptokurtic) distribution. A Cronbach's Alpha of AIAS is .753, which means a good internal consistency, Cronbach's Alpha of ATTC is .705, which means moderate internal consistency and Cronbach's Alpha of PB is .948, which means an excellent internal consistency.

Table 2: *Pearson Correlation between AIAS, ATTC and PB*

	ATTC	**PB**
AIAS	.105	.302
Sig. (2-tailed)	.427	.019

In *table 2*, the Pearson correlation of AIAS and ATTC is .105 indicates a weak positive relationship. Whereas, p= .427 indicates that the relationship is not statistically significant. The Pearson correlation of AIAS and PB is .302 indicates a moderate positive relationship. This means that as use of AIAS increases so PB tends to increase too.

Discussion

The research aimed to investigate the relationships between Artificial Intelligence attitudes, attention and proactive behavior among various employees in Karachi. Total sample size of our study was concluded at 300 responses out of which the male to female ratio was 1:1. Hence, participation from both genders were equal. This section aims to offer insights into the normality and variability in AI attitudes (AIAS), attention control (ATTC) and proactive behavior (PB). The mean scores for AIAS (30.75), ATTC (50.30), and PB (68.58) indicate moderate to high levels across these constructs. Standard deviations were relatively low for AIAS (5.89) and ATTC (7.20) suggesting consistent attitudes and attention control among respondents whereas PB showed greater variability (13.38). Next for variability in data skewness and kurtosis values highlight the nature of the distributions. AIAS and ATTC exhibit slight leftward skewness with platykurtic distributions while PB had a stronger left skew and a leptokurtic distribution indicating a more peaked behavior. Cronbach's alpha values for AIAS (0.753) and PB (0.948) indicate good to excellent internal consistency whereas ATTC (0.705) suggest moderate reliability. These reliability scores assert the robustness of the measurement scales used. The research hypotheses were analyzed using the descriptive statistics Pearson correlation.

The correlation between (AIAS) and (ATTC) shown in *Table 2* shows a weak positive relationship (r=.105, p>.05), indicating that the relationship is not statistically significant. Hence, H1a is rejected aligning with previous research that suggests employees' attention can be influenced by numerous factors including AI pattern, employees' knowledge and how they use it, their experience regarding it and organizational growth in bird's eye view (Kim et al., 2019). Whereas, the correlation between (AIAS) and (PB) shown in *Table 2* shows a moderate positive relationship (r=.302, p=.019). Hence, H1b is supported highlighting that greater attention toward AI-related tasks is associated with higher proactive behavior. Research also demonstrates that AI attitudes and proactive behavior are interconnected and share directly relationship with each other with

healthy usage of AI attitudes leading to increased proactive behavior in employees and assist them to do more in less times (Lee et al., 2020).

Conclusion

In conclusion this research provides important findings about AI attitudes, attention control and proactive behavior in the workplace environment. The study involves 300 employees with an equal representation of male and female responses considering how demographic characteristics and artificial intelligence, cognitive factors and artificial intelligence-related attitudes can define work-related behaviors of employees.

Our hypothesis one where the relationship was checked between AI Attitude and attention we got weak positive relationship. However, according to statistical value p it's not significant. Due to which our hypothesis is rejected and the root causes are that only AI attitude alone may not significantly influence attention control there are numerous factors involved in it as well such as employees' knowledge. Hypothesis two shows that AI attitude has a moderate positive relationship towards proactive behavior which is directly proportional to each other. Higher AI attitudes are associated with increased proactive behavior.

Organizationally based on these outcomes there are a number of suggestions that can be implemented. Firstly, positive AI attitudinal promotion through the training program, workshops and awareness can improve the subject's engagement and preventive behavior. Secondly, effective attention regulation perhaps as a result of practicing mindfulness, cognitive or time management training may also help employees in their course of utilizing AI in their operations. Thirdly, there is a need for organizations to build AI implementation culture through the adoption of principles that reduce resistance such as improving the young and the old workers' receptiveness to new technologies.

Therefore, this research highlights the AI patterns and self-regulatory dimensions that explore employees' work behavior. Through the one-time management of these factors one is able to develop a portfolio of strategies that will produce a competent, technologically adequate, yet robust labor force that is capable of adapting new methodologies in order to produce the expected outcomes. With AI set to redefine the workplace in the coming years, preparing the employees, the organizations and operations for a constantly evolving paradigm of learning, cognitive evolution and positive interaction with AI will remain significant in sustaining competitive and innovative organizations.

Implications

The findings of the research provide valuable insights for HR professionals, organizational leaders and policy makers to enhance employees' engagement and productivity in a AI-driven workplace. The organizations should implement the policy to promote awareness and education related to AI tools, emphasizing on their benefits and practical applications which can reduce employees stress and overload.

Limitations and Future Research Suggestion

The study was conducted only in Karachi, Pakistan. Therefore, the findings cannot be generalized to other cities or countries with different cultural and organizational contexts. The research used a cross-sectional design collecting data at a single point in time. This limits the ability to establish causal relationships among AI attitudes, attention and proactive behavior. The sample was limited to employees aged 22–42 years. Older employees' perceptions were not included which may affect

representativeness. Although participants were from different industries but industry-wise comparative analysis was not conducted.

Future studies should use longitudinal designs to examine how AI attitudes and proactive behavior evolve over time. Future research can examine variables such as AI self-efficacy, Organizational support and AI training exposure. Similar studies should be conducted in other cities of Pakistan and internationally to improve generalizability. Comparative analysis between sectors (e.g., banking, IT, healthcare, education) could provide deeper insights.

Conflict of Interest

The authors showed no conflict of interest.

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References

Agarwal, R., & Karahanna, E. (2000). Time Flies When You're Having Fun: Cognitive Absorption and Beliefs about Information Technology Usage. *MIS Quarterly, 24*(4), 665–694.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211.

Alam, S., et al. (2020). Leadership support for AI adoption in Pakistani organizations. *Journal of Business Research*, 123, 288-296.

Ansari, A., & Ahmed, A. (2024). Impact of AI involvement affect the work efficiency of the staff in the organization. *International Journal of Business, Analytics, and Technology, 2*(2), 22–35.

Bagozzi, R. P. (1981). Attitudes, intentions, and behavior: A test of some key hypotheses. *Journal of Personality and Social Psychology, 41*(4), 607–627.

Derryberry, D. & Reed, M. (2002). Anxiety-Related Attentional Biases and Their Regulation by Attentional Control. Journal of Abnormal Psychology, 111, 225-236.

Grassini, Simone. (2023). Development and validation of the AI attitude scale (AIAS-4): a brief measure of general attitude toward artificial intelligence. Frontiers in Psychology. 14. 1191628. 10.3389/fpsyg.2023.1191628.

Hassan, S., et al. (2022). Emotional responses to AI: An exploratory study. *Journal of Applied Psychology, 107*(5), 591-603.

Hussain, S., et al. (2020). AI acceptance among Pakistani employees. *Journal of Information Technology*, 20(2), 1-12.

Kanten, P. Proactive Behavior Scale: A Study of Validity and Reliability.

Kazim, S.I.H., Afzal, M.F., Gondal, S., Ashraf, M.U., & Umair, M. (2024). Evaluating the Impact of Artificial Intelligence on Employee Engagement and Performance in Pakistan. *Journal of Excellence in Social Sciences, 3*(1), 30-42.

Khan, M., et al. (2020). Understanding AI adoption in Pakistani organizations. *Journal of Business* Research, 123, 297-305.

Köchling, A., Wehner, M.C. & Ruhle, S.A. This (AI)n't fair? Employee reactions to artificial intelligence (AI) in career development systems. *Rev Manag Sci* (2024).

Lara Lobschat; Benjamin Mueller; Felix Eggers; Laura Brandimarte; Sarah Diefenbach; Mirja Kroschke and Jochen Wirtz. (2021), Corporate digital responsibility, *Journal of Business Research*, 122, (C), 875-888.

Lichtenthaler, U. (2020), "Extremes of acceptance: employee attitudes toward artificial intelligence", *Journal of Business Strategy*, Vol. 41 No. 5, pp. 39-45.

Luhana, K. K., Memon, A. B., & Khan, I. (2023). The Rise of Artificial Intelligence and Its Influence on Employee Performance and Work. *Global Social Sciences Review, VIII*(II), 463- 479.

Nambisan, S., Lyytinen, K., Majchrzak, A., & Song, M. (2017). Digital Innovation Management: Reinventing Innovation Management Research in a Digital World. *MIS Quarterly, 41*(1), 223–238.

Rehman, M., et al. (2020). Cultural influences on AI adoption in Pakistan. *Journal of International Business Studies, 51*(5), 757-771.

Xu, G., Xue, M., & Zhao, J. (2023). The Relationship of Artificial Intelligence Opportunity Perception and Employee Workplace Well-Being: A Moderated Mediation Model. *International journal of environmental research and public health*, *20*(3), 1974.