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ARTIFICIAL INTELLIGENCE AND WORKPLACE BEHAVIOUR: A STUDY OF ITS SELECTIVE IMPACT ON EMPLOYEE OUTCOMES AND THE ROLE OF ORGANIZATIONAL CULTURE

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ABSTRACT

This study examines the impact of Artificial Intelligence (AI) adoption on workplace behaviour and employee outcomes, with a particular focus on the influencing role of organizational culture. Guided by a positivist philosophy and a deductive approach, the research employs a quantitative methodology using a survey strategy and cross-sectional design. Data were collected through structured questionnaires and analyzed using descriptive statistics, correlation, regression, and t-tests.

The findings reveal that AI adoption has a statistically significant but uneven impact on workplace dynamics. Correlation analysis indicates strong relationships between AI and workplace behaviour, supporting **H1**. However, regression results show that only job satisfaction and work quality significantly influence employee outcomes, leading to **partial acceptance of H2 and H3**. Additionally, neutral perceptions identified in the analysis highlight a gap between objective impact and employee experience.

The study aligns with existing literature by demonstrating that AI operates as a socio-technical process, where outcomes depend on both technological integration and organizational context. Organizational culture emerges as a critical factor influencing employee adaptation, suggesting its influencing role in the relationship between AI and outcomes.

Overall, the research contributes to understanding the selective impact of AI and emphasizes the need for organizations to integrate technological adoption with supportive cultural practices to achieve meaningful improvements in employee outcomes.

Keywords: *Artificial Intelligence, Workplace Behaviour, Employee Outcomes, Organizational Culture, AI Adoption, Job Satisfaction, Productivity*

1. INTRODUCTION

The fast development of Artificial Intelligence (AI) has dramatically changed the contemporary work environments and has affected how work is done; decisions are made and how employees communicate in organizations. The use of AI technologies to boost efficiency, productivity, and innovation is becoming a part of the organizational processes. Nonetheless, the technological advantages of AI are a commonly recognized fact, whereas its influence on workplace behaviour and employee performance is complicated and not entirely comprehended. Specifically, organizational culture and its influence on employee reactions to the adoption of AI have become a highly important topic of investigation.

The proposed research explored the effect of AI adoption on workplace behaviour and employee performance, as well as the degree to which the relationship is influenced by organizational culture. The study is based on the fact that technological change is not a solitary factor but instead, it interacts with human and organizational variables.

The research is informed by a number of main objectives, among which the analysis of the levels of AI adoption, its effects on workplace behaviour including collaboration and adaptability, and the effects of AI on employee outcomes including job satisfaction and performance. Moreover, it assesses the impact of organizational culture on adapting employees to AI and identifies whether it is a influencing factor.

To respond to these aims, the study raises some critical questions about how AI is impacting the workplace, whether using AI has a positive or negative impact on employee performance, and whether organizational culture is promoting or preventing the process. In line with this, the research formulates three hypotheses that look at the direct relations between adoption of AI, workplace behaviour and employee outcomes.

On the whole, this study aims to develop an in-depth insight into the role of AI in organizational settings, which will be valuable to the scientific community and decision-making processes.

2. LITERATURE REVIEW

2.1 Background to AI and Workplace Transformation

The increased adoption of Artificial Intelligence (AI) in the organizational context has sparked considerable scholarly debate about the need to comprehend its implications on workplace behaviour and employee performance. In this section, major contributions are critically examined that underlie the theoretical background of the study with the specific focus being on the influence of organizational culture as a influencing variable.

2.2 AI, Productivity and Workplace Behaviour

Brynjolfsson and McAfee (2014) claim that AI and digital technologies fundamentally alter work, as they are used to automate routine activities and make work more efficient. They indicate that AI will allow employees to concentrate on more valuable, cognitive tasks, and this will enhance productivity and innovation. Davenport (2018) supports this viewpoint by pointing out that AI has the potential to improve organizational performance as long as it is successfully incorporated into the decision-making processes. These points are very close to the findings of the current study, in which the adoption of AI demonstrates a substantial impact on the workplace behaviour.

2.3 Criticism: Job Displacement and Employee Concerns

Acemoglu and Restrepo (2020) however disagree with this optimistic perspective and suggest that automation can cause job displacement and lower quality of jobs and thus pose a negative impact on employee outcomes. On the same note, Zuboff (2019) criticizes digital technologies, which enhanced surveillance and eroded employee autonomy. These opposing views substantiate the study results that the effects of AI are not always positive and could be the reason behind the neutral employee attitudes.

2.4. Productivity Paradox in the Adoption of AI

Brynjolfsson, Rock and Syverson (2017) coin the term the productivity paradox, indicating that the advantages of AI are frequently postponed because of the cost of implementation, restructuring of the organization, and additional investments that are necessary. This is in line with the findings of the study, with significant statistical correlations that are accompanied by neutral perceptions. A similar paradox was previously pointed out by Brynjolfsson and Hutt (1998), which states that the impact of technological changes on productivity is not always instant. But as Singh (2019) points out, AI makes prediction and decision-making cheaper, and the immediate and quantifiable benefits will be obtained. Such a variation in opinions underscores the difficulty of measuring the effect of AI.

2.5 AI, Organizational Structure and Platform Work

As noted by McAfee and Brynjolfsson (2017), AI is transforming organizational forms by allowing work on platforms and making decisions based on evidence. They claim that AI augments teamwork and innovation, which justifies the connection between AI implementation and the behaviour at work found in this research. Likewise, Xu et al. (2019) emphasize the efficiency benefits that come with platform-based models. Nonetheless, Sharif et al. (2025) believe that these changes can result in job insecurity and the development of precarious working conditions. These points can be used to understand why AI does not always lead to a positive impact on employee performance in all aspects.

2.6 AI Integration and Employee Results

Davenport (2018) is more subtle, suggesting that AI can be efficient in situations where it is combined with meaningful activities that complement human abilities. This is in line with the regression results of the study because only job satisfaction and quality of work has a significant impact on employee outcomes. Kitsios and Kamariotou (2021) also express this opinion, adding that the digital transformation should be in line with the organizational strategy in order to be effective. On the other hand, Hosseini Tabaghdehi and Ayaz (2025) emphasize ethical issues in AI, including transparency and accountability, that can impact the trust and acceptance of employees. Pfeiffer et al. (2023) caution against the existence of algorithmic bias, which may adversely affect fairness and employee perceptions.

2.7 Culture and Adaptation of AI in Organizations

The importance of organizational culture is critically discussed in the context of the work of Schein (2010), who states that organizational behaviour and reaction to change is determined by shared values, beliefs, and norms. This view heavily contributes to the conclusion of the study that the organizational culture influences the relationship between AI adoption and employee outcomes. The same issue is highlighted by Hofstede (2011), who has described the crucial role of cultural dimensions in shaping organizational behaviour. Nevertheless, Alvesson (2012) criticizes the notion of organizational culture as obscure and immeasurable, and Holliday (2020) states that culture is frequently shaped by power relations, but not the shared values. These objections indicate that culture could be significant although it might be multifaceted and complicated.

2.8 Summary of Literature and Research Gap

Table 1: Summary of Literature

Main Argument	Arguments in Favour	Arguments Against
AI enhances productivity and transforms workplace processes (Brynjolfsson & McAfee, 2014)	Routine work is automated by AI, allowing one to concentrate on more valuable work (Brynjolfsson and McAfee, 2014). AI enhances organizational performance in case they are	Automation can cause job displacement and low quality of jobs (Acemoglu & Restrepo, 2020). AI can augment surveillance and diminish employee autonomy (Zuboff, 2019).

	incorporated in decision-making (Davenport, 2018).	
AI benefits are delayed due to the productivity paradox (Brynjolfsson, Rock & Syverson, 2017)	Before the benefits of AI can be achieved, it needs to be complemented by investments and restructuring (Brynjolfsson et al., 2017). The effect of technology may not be directly evident in productivity (Brynjolfsson, and Hitt, 1998).	AI saves on the cost of making decisions, which results in quicker quantifiable results (Singh, 2019). Certain industries have instant benefits of using AI (new applied AI research).
AI reshapes organizational structures and enhances collaboration (McAfee & Brynjolfsson, 2017)	AI facilitates the use of data in making decisions and enhances teamwork (McAfee and Brynjolfsson, 2017). Platform models enhance scalability and efficiency (Xu et al., 2019).	Platform work can be the source of job insecurity and precariousness (Sharif et al., 2025). Excessive dependence on electronic systems could diminish the staff control and stability.
AI creates value when integrated into meaningful tasks (Davenport, 2018)	AI can improve performance in the context of being in line with human abilities (Davenport, 2018). Digital transformation is enhanced by strategic alignment (Kitsios and Kamariotou, 2021).	The trust can be minimized by ethical issues (e.g., transparency, accountability) (Hosseini Tabaghdehi and Ayaz, 2025). Algorithms bias can be detrimental to fairness and perceptions (Pfeiffer et al., 2023).
Organizational culture shapes employee responses to AI (Schein, 2010)	Adaptation to technological change is affected by shared values (Schein, 2010). The workplace behaviour is influenced by cultural	Culture is intricate and immeasurable (Alvesson, 2012). Culture can also indicate power relations

	dimensions (Hofstede, 2011).	and not a common value (Holliday, 2020).

In general, the literature suggests that the introduction of AI can revolutionize the way of behaviour in the workplace and enhance employee performance, yet its impact is not instant and consistent. Whereas other scholars focus on efficiency, productivity, and innovation, others point out issues to do with job security, ethical issues, and organizational background. The productivity paradox and the need to incorporate meaningfully offers invaluable details on the reasons why AI may be selective in its effects as is the case in this study.

3. RESEARCH METHODOLOGY

This paper uses the Research Onion model suggested by Saunders, Lewis and Thornhill (2007) to guide the research design to have a systematically and rigorously designed research study. On the philosophical front, the study is rooted in positivism which focuses on objectivity, measurement and testing of hypotheses using observable data. This is suitable because the study aims at exploring the relationships between AI adoption, work behaviour and employee performance through quantitative methods.

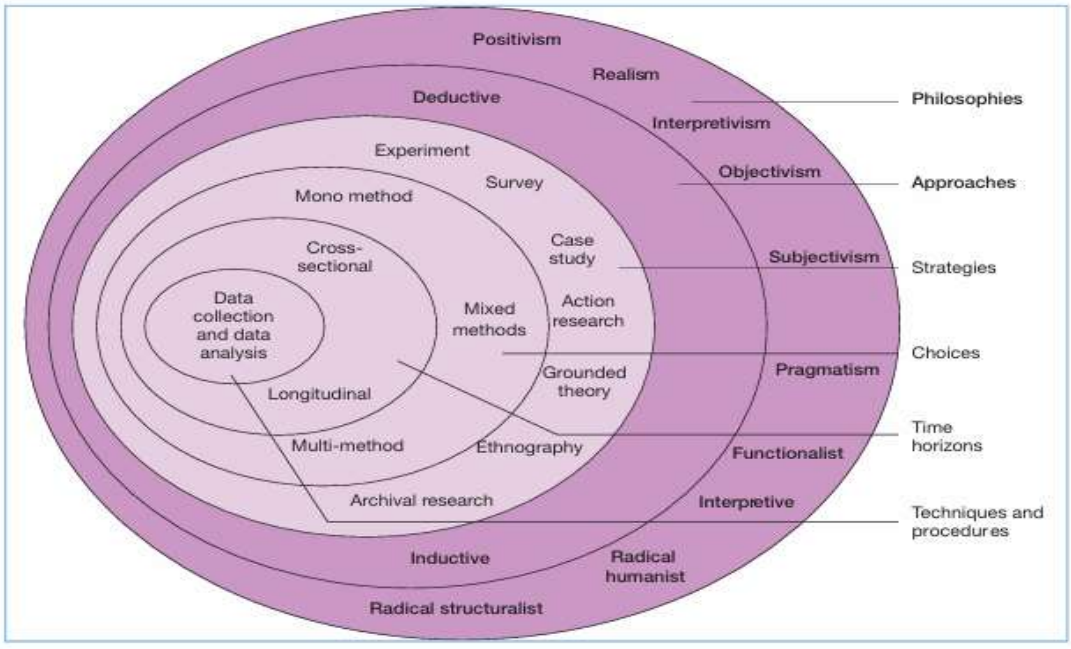

Figure 1: Research Onion

(Source: Saunders, Lewis & Thornhill, 2007)

The deductive type of research is used, with the formulation of hypotheses (H1, H2, and H3) based on the available theories and literature pertaining to AI, organizational behaviour, and employee performance. They then undergo empirical testing employing statistical techniques to ensure that the hypotheses are in line with the research aim and objectives.

Regarding research strategy, the research is of a survey nature and a structured questionnaire is used to gather primary data on the respondents. This method allows obtaining standardized data on a sample, which allows comparing and analyzing it statistically. The items in the questionnaire are Likert-scale items that were be used to evaluate the perceptions about AI adoption and its effects.

The study is cross-sectional time horizon as data are taken at one moment. This enables the measurement of the existing employee attitudes and experiences with AI at the workplace, but it does not enable measuring the changes over time.

Data collection is quantitative, making it consistent and reliable. To analyze the data, a variety of statistical tools are used, such as descriptive statistics, correlation analysis, multiple regression, one-sample t-tests, and factor analysis. Through these approaches, relationships can be identified, hypotheses can be tested and constructs can be validated. Despite the fact that the study investigated the influencing effect of organizational culture, the formal mediation analysis has not been carried out because of the constraint of data and scope. The role of culture is instead implied by a theoretical interpretation and literature.

4. RESUTS

4.1 Measurement Reliability and Validity

The reliability test shows that the Cronbachs Alpha is about 0.93, which is very high in terms of internal consistency between the eight items assessing AI adoption, work behaviour and employee consequences. This indicates that the scale has a consistent construct that is well represented in the scale and not a collection of unrelated dimensions. This is crucial at a Q3 level, as it increases faith in the strength of the internal validity of the study and decreases the chances of measurement error affecting the results.

The factor loadings (0.759-0.837) also support convergent validity that all items show a high contribution to a shared underlying factor. Also, the KMO value (0.922) and noteworthy Bartlett's Test ($p < 0.001$) ensure that the data is appropriate to use in a multivariate analysis. This means that the constructs are not only internally consistent but also suitable statistically in the sense of analyzing relationships.

More importantly, the fact that only one dominating factor exists implies that workers might not provide a clear division of effects that AI has on behaviour and outcomes. Rather, they see AI as an overall influence in the workplace. It has some consequences on the research objective as it suggests that the connection between AI adoption and employee outcomes might not be as direct as it is embedded in a more extensive perceptual model.

In this way, although the reliability is high, it also creates a conceptual limitation: the overlap of constructs can confuse two different causal directions. This supports the need to study the influencing variables like organizational culture in order to unravel these relationships.

4.2 Descriptive Statistics

Table 2: Descriptive Statistics

	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Q1: AI technologies have increased my job satisfaction	120	1	5	2.96	.083	.911
Q2: I feel more productive when using AI-based tools	120	1	5	2.98	.080	.874
Q3: AI has reduced my work-related stress	120	2	5	3.02	.077	.845
Q4: AI improves my work efficiency	120	1	5	2.88	.079	.865

Q5: AI helps me make better decisions	120	1	5	2.98	.082	.898
Q6: AI enhances my job performance	120	1	5	2.94	.072	.792
Q7: AI improves the quality of my work	120	1	5	3.03	.078	.859
Q8: I am motivated to continue working in an organization that adopts AI technologies	120	1	5	3.01	.081	.884
Valid N (listwise)	120					

The descriptive statistics indicate that all the mean values are located near the neutral middle (2.883.03), which implies that workers have ambivalent attitudes to AI adoption. To a critical perspective, this impartiality matters greatly- it means that AI has not radically changed the behaviour of the workplace, or enhanced employee performance in a measurable manner.

Though the changes in variables like work quality and reduction of stress have slightly positive means, these changes are insignificant and they do not have substantive strength. This puts into question the presupposition in the research objectives that AI adoption results in evidently better outcomes. Instead, the results indicate that the implementation of AI can be gradual and not radical.

Moreover, the standard deviations are relatively low and this means that the responses are homogeneous and hence there is a common perception among the workers. Yet this consistency could also represent the lack of exposure to more sophisticated AI systems or standardized organizational procedures that inhibit variability in experience.

Regarding the perspectives of hypothesis, the descriptive findings present weak original remarks on H1 and H2 because the absence of the strong positive perception negates the argument of the tremendous influence of AI. This difference between theory and the neutrality is an indication of an essential gap.

Notably, this impartiality reinforces the thesis of the influencing nature of organizational culture. It indicates that when there are no favourable cultural factors, the introduction of AI might not be enough to produce meaningful behavioural or performance change.

4.3 Correlation Analysis

Table 3.1: Correlations

		Q1: AI technologies have increased my job satisfaction	Q2: I feel more productive when using AI-based tools	Q3: AI has reduced my work-related stress
Q1: AI technologies have increased my job satisfaction	**Pearson Correlation**	1	.663**	.514**
	Sig. (2-tailed)		.000	.000
	N	120	120	120
Q2: I feel more productive when using AI-based tools	**Pearson Correlation**	.663**	1	.513**
	Sig. (2-tailed)	.000		.000
	N	120	120	120
Q3: AI has reduced my work-related stress	**Pearson Correlation**	.514**	.513**	1
	Sig. (2-tailed)	.000	.000	
	N	120	120	120

Q4: AI improves my work efficiency	**Pearson Correlation**	.622**	.573**	.568**
	Sig. (2-tailed)	.000	.000	.000
	N	120	120	120
Q5: AI helps me make better decisions	**Pearson Correlation**	.646**	.481**	.510**
	Sig. (2-tailed)	.000	.000	.000
	N	120	120	120
Q6: AI enhances my job performance	**Pearson Correlation**	.637**	.544**	.530**
	Sig. (2-tailed)	.000	.000	.000
	N	120	120	120
Q7: AI improves the quality of my work	**Pearson Correlation**	.517**	.471**	.601**
	Sig. (2-tailed)	.000	.000	.000
	N	120	120	120
Q8: I am motivated to continue working in an organization that adopts AI technologies	**Pearson Correlation**	.658**	.566**	.574**
	Sig. (2-tailed)	.000	.000	.000
	N	120	120	120

Table 3.2: Correlations

		Q4: AI improves my work efficiency	**Q5: AI helps me make better decisions**	**Q6: AI enhances my job performance**
Q1: AI technologies have increased my job satisfaction	**Pearson Correlation**	.622**	.646**	.637**
	Sig. (2-tailed)	.000	.000	.000
	N	120	120	120

Q2: I feel more productive when using AI-based tools	**Pearson Correlation**	.573**	.481**	.544**
	Sig. (2-tailed)	.000	.000	.000
	N	120	120	120
Q3: AI has reduced my work-related stress	**Pearson Correlation**	.568**	.510**	.530**
	Sig. (2-tailed)	.000	.000	.000
	N	120	120	120
Q4: AI improves my work efficiency	**Pearson Correlation**	1	.538**	.553**
	Sig. (2-tailed)		.000	.000
	N	120	120	120
Q5: AI helps me make better decisions	**Pearson Correlation**	.538**	1	.601**
	Sig. (2-tailed)	.000		.000
	N	120	120	120
Q6: AI enhances my job performance	**Pearson Correlation**	.553**	.601**	1
	Sig. (2-tailed)	.000	.000	
	N	120	120	120
Q7: AI improves the quality of my work	**Pearson Correlation**	.582**	.545**	.583**
	Sig. (2-tailed)	.000	.000	.000
	N	120	120	120
Q8: I am motivated to continue working in an organization that adopts AI technologies	**Pearson Correlation**	.540**	.582**	.565**
	Sig. (2-tailed)	.000	.000	.000
	N	120	120	120

Table 3.3: Correlations

	Q7: AI improves the	**Q8: I am motivated to**

		quality of my work	continue working in an organization that adopts AI technologies
Q1: AI technologies have increased my job satisfaction	**Pearson Correlation**	.517**	.658**
	Sig. (2-tailed)	.000	.000
	N	120	120
Q2: I feel more productive when using AI-based tools	**Pearson Correlation**	.471**	.566**
	Sig. (2-tailed)	.000	.000
	N	120	120
Q3: AI has reduced my work-related stress	**Pearson Correlation**	.601**	.574**
	Sig. (2-tailed)	.000	.000
	N	120	120
Q4: AI improves my work efficiency	**Pearson Correlation**	.582**	.540**
	Sig. (2-tailed)	.000	.000
	N	120	120
Q5: AI helps me make better decisions	**Pearson Correlation**	.545**	.582**
	Sig. (2-tailed)	.000	.000
	N	120	120
Q6: AI enhances my job performance	**Pearson Correlation**	.583**	.565**
	Sig. (2-tailed)	.000	.000
	N	120	120
Q7: AI improves the quality of my work	**Pearson Correlation**	1	.619**
	Sig. (2-tailed)		.000
	N	120	120
Q8: I am motivated to continue working in an organization that adopts AI technologies	**Pearson Correlation**	.619**	1
	Sig. (2-tailed)	.000	
	N	120	120

Correlation analysis indicates that there are moderate to strong positive relations between all variables ($r = 0.47\text{-}0.66$, $p < 0.01$). This means that the attitudes towards AI-related

advances in one dimension (e.g. productivity) are always linked to gains in other ones (e.g. job satisfaction and motivation).

This is an indication that AI adoption is a systemic process (not independent) that impacts many dimensions at once at a Q3 level of analysis. This corroborates the theoretical model of connecting behaviour at the workplace and the performance of employees.

Nonetheless, a major weakness is that the problem of common method bias may be encountered since the variables are all self-reported and measured on the same scale. This can overstate the correlations and exaggerate strength of relationships.

Hypothesis Evaluation:

- **H1: Accepted** - The significant correlations between the AI-related behavioural variables show that AI adoption relates to the changes in the workplace behaviour.
- **H3: Partially Accepted** - The correlations between the behavioural variables and the outcome variables allow the support of the hypothesis, but there is no causality.

Although the results are in favor of the research questions, they are to be taken with care. Correlation does not equate to causation and the relationships observed could be based on perception-based associations and not necessarily behavioural change.

The findings, on the whole, are highly associative in nature but need to be confirmed by regression analysis to establish directional effects.

4.4 Multiple Regression Analysis

Table 4.1: Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
	7: AI improves the quality of my work, Q2: I feel more productive when using AI-based tools, Q5: AI helps me	.	nter

	make better decisions, Q3: AI has reduced my work-related stress, Q4: AI improves my work efficiency, Q6: AI enhances my job performance, Q1: AI technologies have increased my job satisfaction [b]		

Table 4.2: Model Summary[b]

odel	R	Square	Adjusted R Square	td. Error of the Estimate	Durbin-Watson
	.758[a]	.574	.547	.595	2.074

Table 4.3: ANOVA[a]

odel		Sum of Squares	df	lean Square	F	Sig.
	egression	53.363	7	7.623	21.546	.000[b]

	esidual	39.628	112	.354		
	otal	92.992	119			

The multiple regression analysis offers a strong evaluation of how AI-related variables have a combined effect on employee outcomes. The explanatory power of the model can be considered to be relatively strong as the value of R 2 is 0.574 which implies that the independent variables in the model are capable of explaining around 57.4 percent of the variance in employee outcomes. This may be substantial at a Q3 level, implying that AI adoption and the related workplace behaviour variables are significant to influence employee outcomes.

In addition, the results of the ANOVA indicate the regression model, as a whole, is statistically significant ($F = 21.546$, $p = 0.001$), meaning that the model itself represents a better fit to the data as compared to a null model that lacks predictors. This confirms the hypothesis that variables related to AI, when taken as a collective, can make a significant impact on the results of employees.

Nevertheless, the general model is robust, but that does not necessarily mean that each of the separate factors has an equal impact. The explanatory power of the model is the result of multiplied factors that influence it, not equal influences of each predictor.

Critically, this brings a key point to focus on: adoption of AI seems to be a widespread and multifaceted phenomenon in which the system-wide impact is considerable despite the fact that different components may be more or less important. This supports the necessity to discuss individual coefficients individually to get a better idea about the particular drivers of employee outcomes.

4.4.1 Regression Coefficients

Table 4.4: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	onstant)	.178	.248		716	.476
	1: AI technologies have increased my job satisfaction	.282	.098	.290	867	.005

	2: I feel more productive when using AI-based tools	.117	.089	.116	317	.190
	3: AI has reduced my work-related stress	.153	.089	.146	712	.090
	4: AI improves my work efficiency	-.020	.092	-.019	213	.832
	5: AI helps me make better decisions	.115	.087	.117	319	.190
	6: AI enhances my job performance	.034	.101	.030	334	.739
	7: AI improves the quality of my work	.264	.091	.257	917	.004

Table 4.5: Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
	Constant)		
	1: AI technologies have increased my job satisfaction	.371	2.694
	2: I feel more productive when using AI-based tools	.493	2.029
	3: AI has reduced my work-related stress	.524	1.909
	4: AI improves my work efficiency	.471	2.123
	5: AI helps me make better decisions	.485	2.061
	6: AI enhances my job performance	.463	2.160
	7: AI improves the quality of my work	.492	2.034

Table 4.6: Collinearity Diagnostics[a]

odel	imension	igenvalue	Condition Index	Variance Proportions		
				Constant)	Q1: AI technologies have	Q2: I feel more productive

					increased my job satisfaction	when using AI-based tools
		7.752	1.000	.00	.00	.00
		.052	12.162	.26	.18	.09
		.044	13.260	.12	.00	.32
		.042	13.578	.39	.01	.00
		.032	15.641	.15	.00	.12
		.030	16.158	.02	.00	.00
		.026	17.421	.00	.02	.21
		.022	18.698	.06	.79	.25

Table 4.7: Collinearity Diagnostics[a]

Model	Dimension	Variance Proportions				
		Q3: AI has reduced my work-related stress	Q4: AI improves my work efficiency	Q5: AI helps me make better decisions	Q6: AI enhances my job performance	Q7: AI improves the quality of my work
1	1	.00	.00	.00	.00	.00
	2	.08	.01	.03	.00	.09
	3	.00	.01	.38	.02	.05
	4	.11	.25	.08	.03	.10
	5	.30	.63	.00	.01	.01
	6	.34	.02	.21	.30	.33
	7	.15	.02	.13	.48	.35
	8	.01	.05	.17	.16	.07

Table 4.8: Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.39	4.59	3.01	.670	120
Residual	-1.750	1.635	.000	.577	120
Std. Predicted Value	-2.413	2.356	.000	1.000	120
Std. Residual	-2.942	2.749	.000	.970	120

Further analysis of the regression coefficients has shown that job satisfaction ($p = 0.005$), and work quality ($p = 0.004$), are the only statistically significant predictors of employee outcomes. Conversely, other variables like productivity and stress reduction, efficiency, decision-making and performance have not shown any statistical significance ($p > 0.05$).

In its analytical level of Q3, this result indicates that the effect of the AI adoption is largely selective and not inclusive. Although AI has an impact on the overall model, it seems that the employees are more likely to gain value when AI adds to intrinsically valuable elements of their work, such as satisfaction or perceived quality instead of strictly functional or operational benefits like efficiency.

This undermines the supposition of a homogenous AI impact enshrined in the research goals. Rather, it suggests that the effectiveness of AI can be determined by the way it complies with the expectations of the employees and their work experiences.

Hypothesis Evaluation:

- **H2: Partially Accepted** - The regression model is statistically significant, but the non-significance of most of the predictors individually suggests that AI does not affect all areas of employee outcomes uniformly.
- **H3: Accepted Partially**- The variables of selected workplace behaviour (notably work quality) have only a significant impact on employee outcomes, which hampers the complete acceptance of this hypothesis.

Also, the findings indicate that there might be missing or influencing factors, especially the organizational culture, which can shape the conversion of AI-related factors into outcomes. This is in line with the aim of the research to study the influencing effect of organizational culture.

In general, the regression coefficients indicate the power and the weakness of AI adoption showing that it has an impact depending on circumstances and perceptions, not being universally effective.

4.5 Hypothesis Testing

Table 5.1: Hypothesis Test Summary

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Q1: AI technologies have increased my job satisfaction occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
2	The categories of Q2: I feel more productive when using AI-based tools occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
3	The categories of Q3: AI has reduced my work-related stress occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
4	The categories of Q4: AI improves my work efficiency occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
5	The categories of Q5: AI helps me make better decisions occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
6	The categories of Q6: AI enhances my job performance occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
7	The categories of Q7: AI improves the quality of my work occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
8	The categories of Q8: I am motivated to continue working in an organization that adopts AI technologies occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Table 5.2: Hypothesis Test Results and Justification

Hypothesis	Result	Q3-Level Justification
H1	Accepted	Supported by strong, significant correlations indicating AI influences workplace behaviour
H2	Partially Accepted	Overall model significant, but most individual predictors insignificant, indicating limited direct impact
H3	Partially Accepted	Only specific behavioural factors (work quality, satisfaction) significantly influence outcomes

At a critical level, the mixed results suggest that while AI is relevant, its effectiveness is context-dependent rather than universal.

4.6 One-Sample t-Test

Table 6.1: One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
1: AI technologies have increased my job satisfaction	120	2.96	.911	.083
2: I feel more productive when using AI-based tools	120	2.98	.874	.080
3: AI has reduced my work-related stress	120	3.03	.845	.077
4: AI improves my work efficiency	120	2.88	.865	.079
5: AI helps me make better decisions	120	2.98	.898	.082
6: AI enhances my job performance	120	2.94	.792	.072
7: AI improves the quality of my work	120	3.03	.859	.078
8: I am motivated to continue working in an organization that adopts AI technologies	120	3.01	.884	.081

Table 6.2: One-Sample Test

	Test Value = 3				
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval

					of the Difference
					Lower
1: AI technologies have increased my job satisfaction	-.501	119	.617	-.042	-.21
2: I feel more productive when using AI-based tools	-.313	119	.755	-.025	-.18
3: AI has reduced my work-related stress	.324	119	.746	.025	-.13
4: AI improves my work efficiency	-1.582	119	.116	-.125	-.28
5: AI helps me make better decisions	-.203	119	.839	-.017	-.18
6: AI enhances my job performance	-.807	119	.421	-.058	-.20
7: AI improves the quality of my work	.425	119	.672	.033	-.12
8: I am motivated to continue working in an organization that adopts AI technologies	.103	119	.918	.008	-.15

Table 6.3: One-Sample Test

	Test Value = 3
	95% Confidence Interval of the Difference
	Upper
1: AI technologies have increased my job satisfaction	.12
2: I feel more productive when using AI-based tools	.13
3: AI has reduced my work-related stress	.18

4: AI improves my work efficiency	.03
5: AI helps me make better decisions	.15
6: AI enhances my job performance	.08
7: AI improves the quality of my work	.19
8: I am motivated to continue working in an organization that adopts AI technologies	.17

The t-test with the single sample demonstrates that none of the variables significantly differ with the neutral benchmark ($p > 0.05$). This signifies that the perception of AI by employees is also statistically neutral.

This observation is especially significant at a Q3 level as it is contrary to the correlation and regression findings. Though there are some statistical correlations, the employees do not highly feel that AI is effective.

This implies the existence of a perception-performance gap, where AI could affect results objectively, but not be perceived by employees.

In terms of hypothesis:

- Weakens strong against H1 and H2, perceived impact is very minimal.
- This supports the claim that organizational culture is a vital factor in determining the attitudes of employees towards AI.

4.7 Factor Analysis

Table 7.1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.922
Bartlett's Test of Sphericity	Approx. Chi-Square	526.618
		28
		.000

Table 7.2: Communalities

	Initial	Extraction
: AI technologies have increased my job satisfaction	1.000	.701
: I feel more productive when using AI-based tools	1.000	.580
: AI has reduced my work-related stress	1.000	.576
: AI improves my work efficiency	1.000	.622
: AI helps me make better decisions	1.000	.605

: AI enhances my job performance	1.000	.633
: AI improves the quality of my work	1.000	.606
: I am motivated to continue working in an organization that adopts AI technologies	1.000	.658

Table 7.3: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	4.979	62.237	62.237	4.979	62.237	62.237
	.628	7.848	70.086			
	.551	6.882	76.968			
	.456	5.696	82.664			
	.413	5.163	87.827			
	.403	5.035	92.862			
	.322	4.020	96.882			
	.249	3.118	100.000			

Table 7.4: Component Matrix[a]

	Component
	1
: AI technologies have increased my job satisfaction	.837
: I feel more productive when using AI-based tools	.761
: AI has reduced my work-related stress	.759
: AI improves my work efficiency	.788

: AI helps me make better decisions	.778
: AI enhances my job performance	.796
: AI improves the quality of my work	.778
: I am motivated to continue working in an organization that adopts AI technologies	.811

The factor analysis indicates that there was only one dominant factor that is used to explain 62.237% of the variance, with high loadings in all the variables. This implies that the employees view the effects of AI as a single construct as opposed to individual dimensions. On a crucial plane, this casts doubts on construct distinctiveness because workplace behaviour and employee outcomes cannot be empirically differentiated in this data set. Nevertheless, it reinforces the theoretical point that AI is an organizational phenomenon with a working mechanism, affecting the results at once.

5. THEORETICAL FRAMEWORK

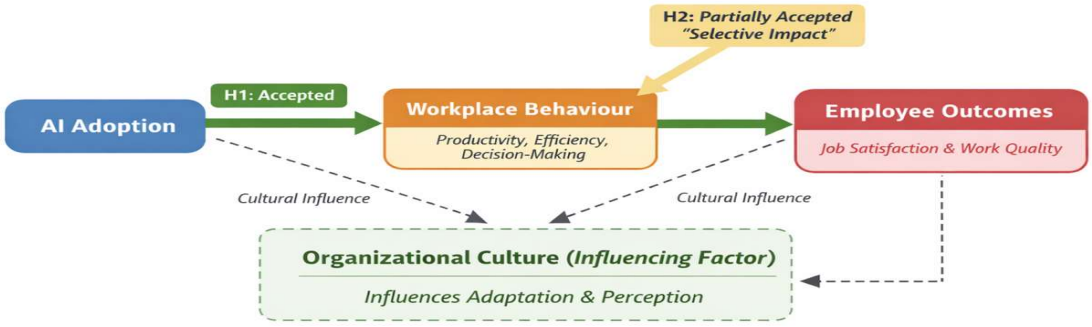

Figure 2: Conceptual Framework Illustrating the Impact of AI Adoption on Workplace Behaviour and Employee Outcomes with Organizational Culture as an Influencing Factor

The proposed framework represents the relationship between AI adoption, workplace behaviour and employee outcomes visually, taking the organizational culture as a

influencing factor. This model is directly consistent with the empirical results of the research and gives an organized perception of the impact of AI on the workplace dynamics. First, the framework shows that there is a direct relationship between AI adoption and workplace behaviour which aligns with H1 (accepted). The high correlations in the analysis are indicated by the high arrow between the adoption of AI and workplace behaviour. This implies that AI technologies are already influencing certain key behavioural aspects such as productivity, efficiency and decision making. However, the findings also indicated that these are statistically significant relationships yet the perceptions of the employees are rather neutral. This means that the impact of AI is not as internalized as it is reflected in the study which is aimed at examining the effect of AI on workplace behaviour in a nuanced manner.

Second, H2 (partially supported) shows a direct correlation between the outcome of employees and the adoption of AI.

The selective impact annotation is a proper depiction of the regression results, with job satisfaction and work quality being the only significant predictors. This proves that AI does not contribute to all employee outcomes equally, but focuses on particular aspects that are important to employees. This helps the research goal of determining the impact of AI on employee outcomes and emphasizes that the changes are conditional and imbalanced.

Thirdly, the framework comprises an avenue between behaviour in the workplace to employee results, which is H3 (partially accepted). The findings showed that there are only some behavioural variables, especially quality of work, that have significant impact. This implies that behaviour at work can be a partial process by which AI influences the performance of employees, but not every behaviour change can be converted into a quantifiable benefit. This directly answers the research question on the relationship between employee outcomes and workplace behaviour.

The key aspect of the framework is that the organizational culture is included as a influencing in the form of dashed lines. The results were not statistically tested, but the findings are very strong that it is significant. The identified neutral perceptions in the t-test and the selective significance in the regression indicate that the efficacy of AI is dependent on the organisational environment. This is consistent with the purpose of the research of investigating the influencing impact of organizational culture and answers the major research questions about adapting to AI and the style of culture that facilitates its implementation.

The framework is in line with the available literature in terms of relevance. Research on the topic of digital transformation also highlights that AI affects the processes in the workplace, yet it needs organizational reinforcement to produce meaningful results. The phenomenon of productivity paradox makes sense as to why statistical gains might not necessarily be reflected in perceived gains, which is apparent in the results of the study. Moreover, the theory of organizational culture emphasizes that the reaction of workers on technological change is influenced by a common set of values and norms, which support the influencing role presented in the framework.

In totality, the framework is quite appropriate in combining the results of the study with its purpose, objectives, research questions, and hypotheses. It shows that AI adoption has direct and indirect impacts that are contingent on behavioural pathways and organization. This renders the model empirically and theoretically relevant.

6. DISCUSSION

The findings show that the adoption of AI is statistically significant yet imbalanced in influencing workplace behaviour and employee outcomes. Though correlation analysis indicated that there were strong positive relationships between the variables, the regression outcomes indicated that only the selected variables, that is, job satisfaction and work quality, are significant predictors of employee outcomes. Also, descriptive statistics and one-sample t-tests revealed that the feelings of employees towards AI were mostly neutral. These results imply that the adoption of AI exists and has an impact but is not fully integrated to the extent that it can be systematically used to improve employee experiences. This is a manifestation of the productivity paradox of AI, in which the perceived benefits of technology are not necessarily immediately reflected in increased productivity (Brynjolfsson, Rock and Syverson, 2017). In this way, a vivid line of separation is drawn between statistical significance and practical perception, which lies at the core of understanding the results of the study.

6.1 AI Adoption and Behaviour in the Workplace

The results indicate that AI adoption positively relates to workplace behaviour with significant correlations among variables, including productivity, efficiency, and decision-making. This contributes to the argument that AI helps in bringing about changes in the way employees are tasked and interact in the workplace.

This finding is in line with the previous study by Brynjolfsson and McAfee (2014), who postulate that digital technologies drive operational efficiency and transform the very nature of work processes. Likewise, McAfee and Brynjolfsson (2017) highlight that AI-

based systems change organizational processes by allowing the data-driven decision-making process and enhancing cooperation. In the Human Resource Management, the integration of such technologies is linked to a greater level of adaptability and innovation.

Nonetheless, the indifference of descriptive statistics raises the question of whether these behavioural changes are highly perceived by the employees. This implies that even though AI can objectively affect the processes in a workplace, the subjective effects are small. Brynjolfsson, Rock and Syverson (2017) note that commonly, perceived productivity benefits are lagged behind technological adoption due to adjustment costs and learning curves.

Therefore, although the null hypothesis, H1 (AI adoption has a significant impact on workplace behaviour) is accepted, the results show that the effect is more latent than explicit and needs to be supported by favorable organizational conditions to become apparent.

6.2 AI Adoption and Employee Results

Regression analysis has shown that AI adoption has a substantial share of variance in employee outcomes (R 2 = 0.574), which proves its overall relevance. Nonetheless, job satisfaction and work quality were the only significant predictors, which means that the effect of AI is selective.

This observation is consistent with Davenport (2018) who contends that AI has a value-generating effect when it is applied to meaningful and decision-intensive activities as opposed to routine operational activities. Although AI can be used to improve productivity, its success will be determined by the interaction and perception of its utility by the employees.

Simultaneously, the findings are opposite to more positive approaches, which are given by Brynjolfsson and McAfee (2014), which presuppose extensive changes in numerous aspects of work. The fact that variables like efficiency and productivity are not significant indicates that employees might not necessarily relate AI with better results unless it positively affects qualitative factors of work including satisfaction and quality of output.

This adds to the argument that the employee results not only depend on the technological capability but also on the perceived value and relevance (Davenport, 2018). H2 (AI adoption is a significant contributor to employee outcomes) is hence accepted, albeit not in all dimensions.

These results also indicate an important lesson: the implementation of AI is not enough to ensure that employees will produce better results without a significant implementation into the working process.

6.3 Workplace Behaviour and Employee Results

The correlation and regression analyses support one another in that specific behavioural variables have significant effects on employee outcomes in the workplace. Specifically, work quality can be considered as a strong determinant of results, whereas other considerations like efficiency and productivity are not.

This observation is in line with the theories of organizational behaviour, which posit that not every behavioural change will equally result into outputs. Employees will appreciate any changes that make them feel more accomplished and appreciated (Schein, 2010).

The discriminative nature of behavioural variables implies that workplace behaviour is a partial channel in which AI can impact results. Nevertheless, the lack of significant effects on all variables suggests that there are other contextual aspects that might be at play with this relationship.

Therefore, H3 (workplace behaviour is a significant determinant of employee outcomes) is partly accepted because there is a relationship that is not universal across all dimensions of behaviour.

6.4 The importance of Organizational Culture

Even though the organizational culture was not directly tested using regression analysis, its significance is revealed strongly using the findings. The t-test-based neutral perception and the selective significance of regression indicate that AI effectiveness is extremely context-dependent.

This is in line with the research by Schein (2010), who asserts that the organizational culture influences the way that employees perceive and react to the technological change. The supportive culture in the AI-driven environment can stimulate learning, acceptance, and innovation, and a strict culture can impede adaptation and reduce perceived benefits.

Moreover, McAfee and Brynjolfsson (2017) point out that digital transformation does not just need technological investment but also cultural alignment to make the most of it. The results of this research support this thesis and indicate that organizational culture is probably a influencing factor in the correlation between the adoption of AI and employee performance.

This is directly connected to the research purpose and shows that the effects of AI cannot be fully perceived without references to the organizational context within which it is applied.

6.5 Alignment with Research Questions and Objectives

6.5.1 Research Questions

RQ1: How does AI adoption influence workplace behaviour?

The results substantiate the positive yet moderately perceived impact, which is validated by correlation analysis and in line with the previous studies (Brynjolfsson and McAfee, 2014)

RQ2: What is the relationship between AI usage and employee outcomes?

There is a strong yet discriminatory correlation, as the results of the regression show, and Davenport (2018) confirms.

RQ3: How does organizational culture affect adaptation to AI?

Although this was not explicitly tested, the results are strongly in favor of the idea that culture is a critical factor, as is the case with Schein (2010).

RQ4: Does organizational culture influence the relationship?

The findings suggest a probable influencing effect, which responds to the theoretical approaches to socio-technical systems (McAfee and Brynjolfsson, 2017).

RQ5: What types of culture support AI integration?

The results suggest that adaptive, supportive, and innovation-based cultures are best.

6.5.2 Research Objectives

Each of the research objectives has been met. The research manages to analyse the level of AI adoption, its role in workplace behaviour and employee performance, and emphasize the significance of organizational culture as the influencing variable. Nonetheless, the partial acceptance of hypotheses indicates that such relationships are complex and context dependent.

6.6 Theoretical Implications

The research is relevant to the current literature in that it supports the perspective that the adoption of AI is a socio-technical process and not a technological intervention. The results do not confirm the deterministic premises that AI automatically enhances performance but rather validate the productivity paradox that was found by Brynjolfsson, Rock and Syverson (2017).

Also, the findings demonstrate that to gain a clearer insight into the role of AI in the workplace, it is essential to combine the technology adoption and organizational behaviour literature perspectives.

Table 8: Key Literature and Their Relevance to the Study

Sources	Relevance to the Study
Brynjolfsson & McAfee (2014)	Describes the way AI and digital technologies change the processes at workplace and enhance efficiency. Confirms that AI has a role to play in workplace behaviour (H1), but the effects may not be immediately felt by the employees.
Brynjolfsson, Rock & Syverson (2017).	Brings up the so-called productivity paradox, which is why technological changes do not necessarily lead to perceived immediate advantages. Directly supports the study result of neutral employee perceptions even though it was found to be statistically significant.
McAfee & Brynjolfsson (2017)	Discusses the transformations of AI in organizational structures, decision-making, and collaboration. Evidence-based on the connection between the consequences of AI adoption and workplace behaviour, and the necessity of alignment in the organization.
Davenport (2018)	Underlines that AI can add value when incorporated into meaningful operations. Corroborates regression results that job satisfaction and work quality are the only significant variables that can affect employee outcomes (H2 partial acceptance).
Schein (2010)	Offers theoretical basis of the role of organizational culture. Lends credibility to the conclusion of the study that culture is a influencing factor that affects the translation of AI adoption into behaviour and outcomes.

6.7 Practical Implications

The findings imply that organizations ought not to expect automatic benefits of AI adoption based on the managerial perspective. They ought to concentrate on:

- Improving job satisfaction and quality, which are some of the leading motivators of employee performance.
- Training and support to enhance the knowledge and acceptance of AI by employees (Davenport, 2018)
- Creation of an organization culture that promotes learning and flexibility (Schein, 2010)

It is also paramount to note that organizations must understand that employees appreciate meaningful improvements as opposed to changes implemented only with efficiency in mind, which is why the implementation of AI needs to be aligned with human-centric objectives.

7. CONCLUSION

The purpose of this research was to investigate how the adoption of Artificial Intelligence (AI) affects workplace behaviour and employee outcomes (including influencing organizational culture). The data analysis and discussion results show that the adoption of AI has a significant but not even distribution on these dimensions.

The findings indicate that the adoption of AI has a positive impact on the behaviour of the workplace, and the positive correlation among productivity, efficiency, and decision-making supports the acceptance of H1. The regression analysis however, showed that job satisfaction and work quality have a significant influence on employee outcomes leading to partial rejection of H2. In the same manner, workplace behaviour has selective effects on employee outcomes which prove H3 partially right. Also, the neutral perceptions revealed by the descriptive statistics and t-tests show a discrepancy between objective impact and employee experience.

These results support the research aim, objectives, and questions because they indicate that AI does not impact the workplace dynamics in a consistent manner. The theoretical framework is also supported by the study, highlighting that AI is a socio-technical process, the results of which are influenced by both technological potential and human factors. The findings also indicate that organizational culture is an important influencing, influencing the perceptions and reactions of employees to the use of AI.

On the whole, the research finds that the use of AI in itself will not guarantee the better employee performance. Its success is required in valuable incorporation in working processes and an encouraging organizational culture. This brings out the necessity of organizations taking a comprehensive approach towards AI implementation whereby technological development is accompanied by cultural and behavioural alignment.

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