Journal of Information Systems Engineering and Management
2023, 8(3), 21742
e-ISSN: 2468-4376
https://www.jisem-journal.com/
Research Article

The Impact of Socio-economic Environment on Artificial Intelligence and Technology Adoption: Mediation Moderation of Employee Team Collaboration and Technological Innovation

Simin Tao[1*], Yifan Hao[2]

[1] Ph.D candidate, Business Administration, Seoul School of Integrated Sciences and Technologies, Seoul, Republic of Korea
[2] Ph.D, School of Marxism, Xi'an Shiyou University, Xi'an, China

*** Corresponding Author:** 1705632221@qq.com

Citation: Tao, S., & Hao, Y. (2023). The Impact of Socio-economic Environment on Artificial Intelligence and Technology Adoption: Mediation Moderation of Employee Team Collaboration and Technological Innovation. *Journal of Information Systems Engineering and Management*, 8(3), 21742. https://doi.org/10.55267/iadt.07.13610

ARTICLE INFO

Received: 23 May 2023
Accepted: 17 July 2023

ABSTRACT

The goal of this study is to determine how the socioeconomic environment affects the adoption of artificial intelligence (AI) and technology in Chinese IT organizations while taking into account the mediating effects of employee teamwork and technological innovation. There are 350 employees from different Chinese IT organizations are surveyed online as part of the research's cross-sectional methodology. The study proposes that the adoption of AI and technology is greatly influenced by the socioeconomic situation. It also suggests that the relationship between the socioeconomic environment and the adoption of AI and technology is mediated through employee team collaboration. The relationship between employee team collaboration, AI adoption, and technological innovation is also anticipated to be moderated by technological innovation. The researchers use SPSS (Statistical Package for the Social Sciences) to analyse the data. Descriptive statistics, correlation analysis, mediation analysis, and moderation analysis are some of the statistical approaches used. The findings will offer useful information about how the socioeconomic setting, employee teamwork, and technological advancement affect the adoption of AI and technology across Chinese IT organizations. By presenting actual data on the interactions between the socioeconomic environment, employee collaboration, technological innovation, and the adoption of AI and technology, this study adds to the body of existing work. Organizations will be able to better integrate AI by using the findings to better understand the factors driving technology adoption. The study can help policymakers by providing them with information on the socioeconomic aspects that encourage the use of AI and technology in the IT industry.

Keywords: Socio-economic Environment, Artificial Intelligence, Technology Adoption, Dynamic Capability Theory, Team Collaboration, Technology Innovation.

INTRODUCTION

The economic conditions, social structures, cultural norms, and governmental regulations that influence the commercial landscape are all included in the socio-economic environment (Nouraldeen, 2022). It is crucial in determining how quickly AI and other technologies will be adopted within businesses. In China, where the socioeconomic environment has changed significantly over time, it is essential to comprehend how this has affected how employees use technology and adopt AI (Rabbani et al., 2023). Chinese manufacturing and technology hub status as well as the country's robust economic growth have had a big impact on IT enterprises. Numerous chances for IT enterprises to thrive and flourish have been created by the country's enormous market, growing middle class, and rising consumer demand for digital services. To help the IT industry grow, the Chinese government has implemented a variety of policies and rules (Chatterjee et al., 2022). These encompass programs to encourage innovation, monetary R&D expenditures, the defense of intellectual property, and the development of technology parks and innovation hubs

(Lu et al., 2022).

IT organizations may optimize their operations, increase productivity, and save costs with the help of AI-powered algorithms and systems that can analyses and anticipate large amounts of data (Leesakul et al., 2022). Machine learning, natural language processing, computer vision, robotics, and expert systems are some of the subfields of AI that it encompasses. IT organizations have been able to automate monotonous jobs, expedite procedures, and boost overall operational efficiency thanks to AI technologies like machine learning, natural language processing, and computer vision (Zeng, Li, & Yousaf, 2022). The process by which people or organizations accept and incorporate new technologies into their daily lives or commercial activities is referred to as technology adoption. To promote IT businesses, it has made significant R&D investments, offered tax breaks, and created innovation parks and zones (Wijayati et al., 2022). A sizable and quickly expanding market exists in China for technology goods and services. Due to the intense competition they face, IT organizations constantly embrace new technologies to stay ahead of the curve and satisfy client requests. Teamwork and collaboration are frequently prioritized by Chinese IT organizations (Chatterjee et al., 2022). Employee collaboration is emphasized in order to solve issues, share knowledge, and advance the team and business as a whole. The country's environment for technological innovation is improved through stricter laws and enforcement. The Chinese government has been aggressively promoting technological innovation by enacting laws and programs that encourage R&D in the information technology (IT) industry. This includes monetary rewards, tax breaks, the creation of innovation parks, and incubators (Liu et al., 2020; Cheng et al., 2021).

The present study determines the impact of socio-economic environment on artificial intelligence and technology adoption: the mediating and moderating effects of employee team collaboration and technological innovation on IT company employees in China. The current study established own dynamic capabilities theory. This theory refers to “a concept in strategic management and organizational theory that focuses on a firm's ability to adapt, integrate, and reconfigure its resources and capabilities in response to changing environments and competitive pressures” (Sun et al., 2021). The following objectives for the present study are: 1. Employee team collaboration mediates the relationship between artificial intelligence and socio-economic environment. 2. Employee team collaboration mediates the relationship between technology adoption and socio-economic environment. 3. Employee team collaboration has a significant impact on socio-economic environment. 4. Technological innovation moderates the relationship between Employee team collaboration and socio-economic environment.

LITERATURE REVIEW

The current study establishes that the socioeconomic environment has an impact on the adoption of artificial intelligence and technology. It also examines the mediating and moderating impacts of employee team collaboration and technological innovation on IT business employees in China, as well as the dynamic capability theory (Lathen & Laestadius, 2021). The dynamic capabilities hypothesis states that in order to establish and maintain a competitive edge in volatile and uncertain markets, businesses must cultivate a set of dynamic capabilities. These dynamic capabilities refer to the business's capacity to recognize, seize, and adapt to changes in the external environment. Strong sensing-capable businesses are skilled at compiling and analyzing data from a variety of sources to comprehend market trends and opportunities (Hoyland et al., 2021). It entails tasks including allocating resources, making strategic decisions, and coordinating efforts among various organizational divisions (Nouraldeen, 2022). According to the dynamic capabilities theory, businesses that successfully build and use these three elements can gain and maintain a competitive edge over time. Firms can proactively respond to changes in the business environment and improve their capacity to produce value and outperform their rivals by continuously sensing, seizing, and changing (Nouraldeen, 2022).

The idea of dynamic capacities offers a framework for comprehending how firms may adapt and prosper in volatile and uncertain marketplaces by increasing their ability for strategic flexibility, innovation, and organizational learning. An organization's dynamic capabilities may be significantly improved by artificial intelligence. Artificial intelligence (AI) tools like machine learning and natural language processing can automate processes, analyses massive volumes of data, and produce insights that help businesses make choices rapidly (Luo et al., 2016). Another key component in creating dynamic capabilities is employee team collaboration. Collaboration among staff members must be productive in the context of AI and technology adoption. A crucial component of the dynamic capacities hypothesis is technology adoption. To remain competitive, organizations must be proactive in finding and implementing new technology. For instance, implementing AI technologies can help businesses streamline procedures, boost productivity, and provide individualized client experiences. However, more than just buying new tools is needed for successful technology adoption (Cha et al., 2015). A significant result of the theory of dynamic capabilities is technological innovation. Organizations can encourage innovation and create new goods, services, and procedures by integrating and reconfiguring their resources and capabilities (Sun et al., 2021). When applied to AI and technology adoption, dynamic capabilities theory highlights the value of utilizing AI technologies to improve technology adoption procedures, boost employee team cooperation, and spur technological innovation. Organizations can create and maintain a competitive advantage in today's quickly evolving business environment by successfully integrating these factors (Liu et al., 2020; Amoako et al., 2021). The positive effects of collaborative teamwork on the effective adoption and integration of AI technology inside organizations have been shown in numerous research (Liu et al., 2020; Amoako et al., 2021). Knowledge exchange, creativity, and organizational learning are all made possible by effective employee collaboration, all of which are crucial for realising the full potential of AI. Research has also shown how much the socioeconomic environment affects the adoption of AI. The decision to use AI is influenced by elements like market competitiveness, regulatory frameworks, and economic stability. The mediating function of employee team collaboration in this relationship has been acknowledged as a critical factor in determining how much the socio-economic environment affects the adoption of AI, though. Collaboration between team members serves as a channel for the socioeconomic environment's influence, allowing organizations to successfully embrace and incorporate AI technologies (Liu et al., 2020). Organizations may maximise the socioeconomic advantages of adopting AI by encouraging collaboration and providing a welcoming environment. For this reason, organizations and policymakers should give top priority to programs that encourage employee teamwork in order to fully realise AI's potential for promoting socioeconomic development (Liu et al., 2020). In order to improve cooperation and maximise the socioeconomic benefit of adopting AI, more study is required to explore the mechanisms and contextual elements that influence the mediating role of employee team collaboration. The literature as a whole emphasizes the critical role that employee team collaboration plays in mediating the interaction between AI and the socio-economic environment, emphasizing its significance for businesses and policymakers in harnessing AI for socio-economic progress (Luo et al., 2016).

Collaboration amongst employee teams is essential for an organization's successful deployment of AI technologies. Employee collaboration can be used to pinpoint the particular requirements, difficulties, and opportunities related to implementing AI in a particular socioeconomic setting (E Downes et al., 2021). Organizations can ensure that AI technologies are successfully incorporated into current workflows and that people are encouraged to contribute their ideas and knowledge through promoting collaboration. The introduction of AI frequently necessitates a considerable change in procedures, duties, and roles (Liu et al., 2020). Through improved communication and knowledge sharing, employee team collaboration can close the gap between AI systems and the socioeconomic environment. Organizations may solve socioeconomic difficulties and make sure that AI projects are in line with the requirements and expectations of the workforce and the larger society by fostering collaborative workplaces where employees can share their experiences, worries, and ideas relating to AI (Zhu, Gardner, & Chen, 2018; Seeber et al., 2020). AI systems by allowing workers to address ethical issues, cultural ramifications, and socioeconomic prejudices related to AI (Jiang, Liu, & Jia, 2019). The collaboration of employee teams brings together a range of perspectives, knowledge, and experiences. Decisions about the use of AI technology and its integration into the socioeconomic environment can be made using this collective intelligence (Kavandi & Jaana, 2020). In order to encourage innovation and ensure that AI solutions meet the requirements and values of both the workforce and the general population, organizations need to establish a collaborative culture (E Downes et al., 2021). The adoption of AI may cause employees and the larger socioeconomic environment to express worries and trepidation. Collaboration within employee teams can aid in addressing these issues by supplying a forum for open discussion, promoting openness, and developing trust. Organizations can increase the acceptance and implementation of AI technologies in the socioeconomic context by aggressively soliciting employee opinions and including them in the decision-making process. The relationship between team cooperation, AI, and firm success is examined by Liu et al. (2020). It looks at the circumstances in which team collaboration is most advantageous and how the use of AI influences the results of cooperation. Ogunfowora et al. (2021) examine the organizational capabilities needed for radical innovation without focusing especially on AI. It emphasizes how crucial teamwork and cooperation are to achieving innovative results. The impact of AI on team cooperation is explored by Jiang et al. (2019), who explicitly look at the potential advantages and difficulties of integrating AI technologies. It addresses the need for collaboration to change to accommodate new modes of human-AI interaction. In IT organizations, staff collaboration and information exchange are essential for encouraging technical innovation. Chinese IT companies place a strong emphasis on teamwork, cross-functional cooperation, and open lines of communication to encourage the sharing of knowledge. Employees may use their combined intelligence, promote creativity, and address challenging technology problems thanks to this collaborative atmosphere (Zhu, Gardner, & Chen, 2018; Liu et al., 2020).

The critical role that employee team collaboration plays in bridging the gap between the adoption of new technologies and the socioeconomic environment has recently come under increasing scrutiny. Effective employee collaboration is crucial for successful technology adoption inside organizations, according to this field of study (Urbano et al., 2019). Knowledge exchange, creativity, and problem-solving are encouraged by collaborative teamwork, all of which are essential for embracing and integrating new technology. At the same time, the socioeconomic environment has a big impact on how people decide whether to accept new technologies (Urbano et al., 2019). organizations' preparedness and capacity to adopt and utilise technology for competitive advantage and growth are influenced by factors like economic stability, governmental policies, and market conditions. However, the impact of the socioeconomic environment on technology adoption is only realised thanks to the mediating effect of employee team collaboration (Cheng et al., 2021). Effective technology adoption is supported by collaborative cooperation, which serves as a conduit for converting external socioeconomic elements into internal organizational processes. organizations can take advantage of the socioeconomic environment's ability to propel effective technology adoption by encouraging a collaborative work atmosphere and offering the appropriate resources and assistance (Zhu, Gardner, & Chen, 2018; Liu et al., 2020). In order to improve cooperation and maximise the socioeconomic effects of technology adoption, further study is required to better understand the mechanisms and contextual elements that determine the mediating function of employee team collaboration.

Organizations must take into account their operating environment's socioeconomic conditions while implementing new technology (Cheng et al., 2021). Collaboration within employee teams enables the sharing of information, concepts, and experiences, which helps businesses better comprehend the socioeconomic environment and modify their technologies accordingly. Collaborative talks can shed light on particular requirements, difficulties, and opportunities connected to the adoption of technology in a unique socioeconomic setting (Lv, Shao, & Lee, 2021). Several stakeholders, including employees, clients, suppliers, and regulatory agencies, are frequently involved in the implementation of new technology (Urbano et al., 2019). Collaboration between employee teams helps these stakeholders align and get engaged, ensuring that the adoption process takes into account the socioeconomic aspects important to each group. In order to match technology adoption with the expectations and requirements of various socio-economic stakeholders, collaborative initiatives can help identify potential hurdles, address concerns, and produce novel ideas (Khan & Hou, 2021). Knowledge exchange and capacity building are important aspects of technology adoption for staff members. Collaboration within employee teams fosters information exchange and organizational capacity growth by allowing staff members to share best practices, learn from one another, and gain expertise in the technology that has been deployed (Luo et al., 2016). This cooperative learning environment makes sure that the socioeconomic context is taken into account in the process of skill development, which results in improved technology use within the particular socioeconomic environment. The adoption of new technology frequently necessitates considerable adjustments to job functions, responsibilities, and work procedures (Urbano et al., 2019). Collaboration across employee teams can aid in efficient change management by involving workers in decision-making, addressing their concerns, and co-creating solutions. Collaboration can assist businesses overcome socioeconomic obstacles brought on by technical advancements, such as change aversion, cultural hurdles, or workforce restructure, resulting in more seamless adoption and implementation procedures (Lathen & Laestadius, 2021).

Effective employee collaboration has a huge impact on the larger socioeconomic environment, as research has repeatedly shown. Employees who work in teams efficiently promote a culture of creativity, information sharing, and group problem-solving. These cooperative actions lead to greater productivity, better judgment, and superior organizational success (Khan & Hou, 2021). Additionally, the benefits of employee team collaboration transcend outside the walls of specific organizations and into the broader socioeconomic environment (Urbano et al., 2019). Collaboration across teams fosters innovation, advances technology, and supports entrepreneurial endeavors, which in turn promotes market competitiveness, economic growth, and job creation. Collaboration within and across organizations also makes it easier to share resources, knowledge, and best practices, which promotes the growth of industry clusters and cooperative networks that support local or national socioeconomic development (Luo et al., 2016). organizations and policymakers are actively funding programs that encourage collaboration, like collaborative workplaces, cross-sector alliances, and knowledge-sharing platforms because they recognise the transformative impact of employee team collaboration. Governments support collaborative ecosystems as organizations embrace cooperation as a strategic imperative, which has a positive impact on the socio-economic environment and promotes technical developments, sustainable economic growth, and societal well-being (Zeng, Li, & Yousaf, 2022).

Collaboration across employee teams develops an organizational culture that values innovation and co-creation. Collaboration can help identify new applications for technology in the socio-economic context by bringing together a variety of viewpoints, skills, and experiences (Lu et al., 2022). Through collaborative innovation initiatives, organizations are able to design solutions that meet particular socioeconomic concerns and advance economic and social development, ensuring that technology adoption goes beyond simple implementation. Yu et al. (2017) examine the value of collaboration in digital innovation. Although it does not specifically address technology adoption and the socioeconomic environment, it demonstrates how employee collaboration fosters innovation in the setting of digital technologies. In their study of the effect of supply chain integration capabilities on business performance, Cha et al. (2015) look at this issue. Although it doesn't specifically address the socioeconomic context, it highlights the significance of collaboration in creating capacities that facilitate the adoption of technology and improve organizational outcomes. The relationship between technical innovation and collaboration through open innovation networks is examined by Nguyen and Malik (2022). It gives insights into the importance of collaboration in fostering innovation results, despite not being primarily focused on technology adoption and the socioeconomic environment. China's IT industry actively embraces and adopts new technology (Ogunfowora et al., 2021).

Employees share their knowledge, experience, and abilities when they work in teams effectively. This knowledge exchange helps the workforce grow its human capital, which boosts productivity and innovation (Zeng, Li, & Yousaf, 2022). Organizations can improve their employees' total skills and capacities by encouraging collaboration, which has a favorable effect on the socioeconomic environment by producing a workforce that is more educated and talented. Collaboration among staff members fosters an innovative and creative workplace culture (Chiu & Yang, 2019). When people with different viewpoints and backgrounds work together, they generate original ideas and insights. Organizations may encourage an environment where creative solutions are formed and new goods, services, and processes are developed by fostering cooperation (Zhang W. et al., 2017). Such innovation benefits the socioeconomic environment by fostering economic growth and competitiveness. Collaboration among team members in the workplace improves problem-solving and decision-making processes (Chen et al., 2021). When employees collaborate, they can pool their knowledge, generate ideas, and jointly analyses difficult problems. This cooperative approach to problem resolution can result in more effective and efficient solutions, addressing socioeconomic issues more thoroughly. Organizations can enhance their capacity to address socioeconomic issues and make wise decisions that benefit the larger society by encouraging collaboration (Cheng et al., 2021).

Team collaboration goes beyond internal contacts to include external stakeholders, such as clients, vendors, and the neighborhood. Strong relationships with stakeholders are cultivated via effective collaboration, encouraging involvement and trust. Increased customer happiness, stronger supplier relationships, and fruitful connections with the community can all result from this trust (Sun et al., 2021). As a result, the socioeconomic environment improves and is more favorable for the expansion and development of businesses. Collaboration between employee teams can be the driving force behind social impact and corporate social responsibility (CSR) projects. Employees can recognize societal concerns and create ways to address them by cooperating. Collaboration makes it easier to include social and environmental factors in business practices which results in operations that are ethical and sustainable (Lv, Shao, & Lee, 2021). By addressing social needs, fostering community growth, and advancing moral corporate practices, these initiatives have a positive impact on the socioeconomic environment. The notion of social capital and its consequences for organizational and economic performance are examined by (Adebayo & Kirikkaleli, 2021). It emphasizes the beneficial effects of interpersonal relationships, trust, and cooperation on socioeconomic outcomes. The effects of teamwork and collaboration on a variety of outcomes, such as innovation, performance, and organizational success, are examined by Zhang Y. et al. (2019). The collaboration's broader consequences on organizational and economic elements are revealed, even though they are not specifically related to the socioeconomic situation. The function of collaboration and knowledge sharing in innovation within a product development organization is examined by Rabbani et al. (2023). Despite not being specifically concerned with the socioeconomic context, it emphasizes the significance of collaboration in generating innovative results, which can have wider socioeconomic ramifications.

The idea of social capital is examined by Urbano et al. (2019) along with its connections to intellectual capital and organizational advantage. In order to create value and gain a competitive edge, it emphasizes the importance of connections, trust, and cooperation between individuals and groups. This emphasis can also be applied to the socioeconomic environment (Leesakul et al., 2022). These studies demonstrate how these technological enablers improve team cooperation by facilitating knowledge sharing, communication, and coordination, which in turn affects socioeconomic outcomes. The COVID-19 pandemic has made remote work and virtual cooperation necessary (Chiu & Yang, 2019). The impact of technology-mediated collaboration on output, work satisfaction, and organizational performance has been studied during this time. These studies provide insight into how technological advancements have shaped distant cooperation practices and what it means for the socioeconomic setting (Lu et al., 2022). IT businesses and a thriving tech industry have grown quickly in China. The quick speed of technical advancement in Chinese IT firms necessitates that staff members refresh their knowledge and talents on a regular basis. Companies frequently offer resources and training programs to give their staff essential training and experience in cutting-edge technologies (Nazir et al., 2023). This emphasis on upskilling helps individuals advance professionally and improves their capacity to contribute to technical innovation (Nouraldeen, 2022).

Employee team collaboration has a greater impact on the larger socioeconomic environment when it is amplified by technological innovation, which serves as a moderator. organizations are better able to develop and take advantage of evolving technology when they cultivate a culture of collaboration among their workforce (Chiu & Yang, 2019). Teams that work together are more likely to come up with original concepts, try out cutting-edge technologies, and create creative solutions to difficult problems. These innovations have a radical impact on the socioeconomic environment since they are the result of collaborative efforts. Collaboration across employee teams results in technological innovations that not only promote economic growth but also enhance society and tackle critical social concerns (Nazir et al., 2023). Technology also encourages and fosters teamwork, allowing groups to easily collaborate across distances and draw on a variety of skills. organizations can improve their collaborative abilities and boost their efficiency, production, and competitiveness by adopting technological innovation (Lu et al., 2022).

Development of Hypothesis and Framework of Study

According to previous literature, the researcher formulated a hypothesis and develop a conceptual framework (**Figure 1**).

H1: Employee team collaboration mediates the relationship between artificial intelligence and socio-economic environment.

H2: Employee team collaboration mediates the relationship between technology adoption and socio-economic environment.

H3: Employee team collaboration has a significant impact on socio-economic environment.

H4: Technological innovation moderates the relationship between Employee team collaboration and socio-economic environment.

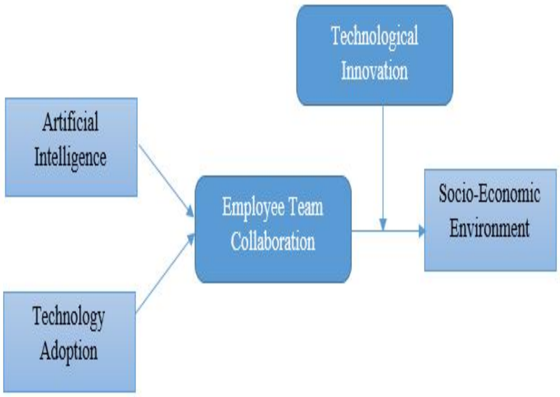

Figure 1. Framework of Study

METHODOLOGY

This research study is based on socio-economic environment with the effect of artificial intelligence and technology adoption. The mediating variable of employee team collaboration plays its part with the further moderating role of technological innovation. To test this research model, a quantitative approach was used and it was descriptive in nature. In this research by using the deductive method of research hypotheses were tested on the basis of collected data from the respondents. To collect the data from the respondents; a cross-sectional approach was used by using an adapted questionnaire. The population of the study was IT company's employees in China and primary data was collected from them by distributing the adapted questionnaire. As the population was not known which is why the non-probability sampling technique was used and under this technique method was non-convenience sampling. The total sample size of the study was 350 and 400 questionnaires were distributed among the IT company's employees in China and filled by online survey. The respondent rate was 85.5% which was quite appropriate and significant. All the ethical aspects of the research were taken into consideration while collecting the data and it was ensured and each stage that the respondents may feel comfortable while giving the responses. The purpose of the study was explained to them and only agreed respondents on continence were selected for the response. It was also ensured to them that the data will remain secret and confidential as well. To test the hypotheses SPSS software was used and the SPSS process macros method was used to perform all the statistical tests where regression analysis was conducted to measure the overall effect (Nawaz & Guribie, 2022; Sandra Marcelline et al., 2022).

Instrument

To test this hypotheses-based study method, the adapted questionnaire was used where all the all the variables were measured by using the 5-point Likert scale based scales. Against each variable items were adapted from different sources, as artificial intelligence was measured by using the 5 item scale of (Wijayati et al., 2022). To measure the effect of technology adoption, 4 items based scale of (Yu, Lin, & Liao, 2017) was adapted and it was also 5 point Likert scale. For the mediating variable employee team collaboration a scale consist of 4 items, developed by (Gevers, Rispens, & Li, 2016) was used. To test the moderating role of technological innovation, a scale of (Chen et al., 2021) was used and total 5 items were adapted. The socio-economic environment as a dependent variable was measured by adapting the 3 items of (Luo et al., 2016). After adapting all the items, the instrument as a questionnaire was used, where purpose of the research was clearly explained firstly. Secondly close ended questions regarding the respondents were asked where the demographic questions were about the gender, age, marital status, designation, education and team size. In last section of the instrument items of the variables were mentioned by giving the 5 options on Likert scale. After the adoption process of the instrument the reliability was tested and the Cronbach alpha value which was more than 0.70 against all the variables suggested that the instrument was reliable and can be used for this research.

RESULTS

Table 1 provides demographic data and emphasizes how the socioeconomic context, as applied by the current study's use of dynamic capability theory, affects the uptake of technology and artificial intelligence. The effects of technology innovation and employee team collaboration on Chinese IT industry personnel are also examined. Among Chinese IT workers, there was a distinct hierarchy of importance between gender, age, education, design, and team size. A sample demographic composition is shown in **Table 1**.

Table 1. Demographic Profile

Demography	Description	No. of Responses	%
Gender	Male	220	63
	Female	130	37
Age	20-30	90	26
	30-40	110	31
	40-50	80	23
	Above 50	70	20
Marital Status	Married	230	66
	Unmarried	120	34
Designation	Senior Managers	90	26
	Midlevel Managers	150	43
	Junior Managers	110	31

Demography	Description	No. of Responses	%
Education	FA/FSC	80	23
	BSIT/BSCS	130	37
	Diploma in IT	140	40
Team Size	3-4 persons	150	43
	4-8 persons	120	34
	More than 8 persons	80	23

Table 1 results show the gender of male IT Company employees in China were 63% and female were 37%. The age of IT Company employees in China 20-30 were 26%, 30-40 were 31%, 40-50 were 23%, while above 50 were 20%. The marital status of IT Company employees married were 66%, and unmarried were 34%. The designation of IT Company employees in China senior managers were 26%, midlevel managers were 43%, and junior managers were 31%. The education of IT Company employees in China FA/FSC were 23%, BSIT/BSCS were 37% and Diploma in IT were 40%. The team size of IT Company employees in China 3-4 person were 43%, 4-8 person were 34% and more than 8 person were 23%.

By adding up all the values in a dataset and dividing that total by the overall number of observations, the mean, also known as the average, is determined. It gives an idea of the typical value and represents the data's core trend. The mean is susceptible to outliers and can be impacted by extreme numbers. Skewness gauges a distribution's asymmetry. It shows which way around the mean the data is skewed, left or right. A distribution that is entirely symmetrical has a skewness value of zero. Kurtosis gauges how a distribution's tails are shaped. It describes how peaked or flattened the data is in comparison to a normal distribution (Abu-Bader and Jones, 2021). Leptokurtic distributions have heavier tails and a sharper peak when the kurtosis value is positive; platykurtic distributions have lighter tails and a smoother peak when the kurtosis value is negative. A normal distribution is one with zero kurtosis. **Table 2** presents the descriptive statistics for the study variables.

Table 2. Descriptive Statistics

	N	Mini	Maxi	Mean	SD	Skewness	Kurtosis
AI	350	1.00	4.20	1.4909	.61656	1.187	.631
TA	350	1.00	5.00	1.7243	.99248	1.749	2.599
ETC	350	1.00	4.25	1.8400	.66193	.805	.269
TI	350	1.00	5.00	2.1337	1.23639	1.053	-.158
SEE	350	1.00	5.00	2.5324	1.13470	.329	-.795

Note: "AI=Artificial Intelligence, TA=Technology Adoption, ETC=Employee Collaboration Team, SEE=Socio-economic Environment, TA=Technological Innovation".

A statistical tool called reliability testing, and more especially Cronbach's alpha, is used to evaluate a scale or questionnaire's internal consistency or dependability. It demonstrates how closely a scale or questionnaire's items measure the same underlying construct. By analysing the inter-item correlations between the scale's items, Cronbach's alpha is determined. Higher numbers indicate stronger internal consistency; the range is 0 to 1. Cronbach's alpha values above 0.7 are often regarded as satisfactory and signify a high level of internal consistency. This implies that the scale's items are highly connected and accurately measure the same construct. Internal consistency is lower when the value is less than 0.7. To increase the scale's dependability under such circumstances, it could be essential to modify or eliminate some of its components. The scale's item count can also have an impact on Cronbach's alpha. More items on a scale generally result in greater alpha values since they allow for a more thorough measurement of the construct. **Table 3** represents the values of Cronbach Alpha.

Table 3. Reliability Test

	N of Items	Cronbach Alpha
Artificial Intelligence	5	.822
Technology Adoption	5	.891
Employee Team Collaboration	5	.768
Technological Innovation	5	.941
Socio-economic Environment	5	.894

A technique called missing value analysis is used to look at and manage missing data in a dataset. Missing values are frequently encountered while working with real-world data; these can occur for a number of reasons, including incorrect data entry, participant non-response, or technical difficulties. To achieve accurate and trustworthy analytical results, it is crucial to manage missing data effectively (Abu-Bader and Jones, 2021). The specific dataset, the type of missing value, and the study goals all influence the technique chosen for missing data analysis. The best missing value analysis strategy for a given dataset can be chosen by consulting statistical literature or asking advice from professionals in the field. **Table 4** represents missing value analysis.

Table 4. Missing Value Analysis

		AI	TA	ETC	TI	SEE
N	Valid	350	350	350	350	350
	Missing	0	0	0	0	0
Minimum		1.00	1.00	1.00	1.00	1.00
Maximum		4.20	5.00	4.25	5.00	5.00

Note: “AI=Artificial Intelligence, TA=Technology Adoption, ETC=Employee Collaboration Team, SEE=Socio-economic Environment, TA=Technological Innovation”.

A statistical tool called correlation measures the magnitude and direction of the association between two variables. It aids in establishing the degree of dependence or similarity between two variables. The correlation coefficient, abbreviated “r”, sits between -1 and +1. When there is a positive correlation, two variables tend to rise together as one rises (Abu-Bader and Jones, 2021). **Table 5** represents the correlation between variables of study.

Table 5. Correlation (2-tailed)

		AI	TA	ETC	TI	SEE
AI	Pearson Correlation	1	.633**	.453**	.420**	.458**
	Sig. (2-tailed)		.000	.000	.000	.000
	Sum of Squares and Cross-products	132.671	135.168	64.538	111.788	111.804
	Covariance	.380	.387	.185	.320	.320
	N	350	350	350	350	350
TA	Pearson Correlation	.633**	1	.437**	.642**	.643**
	Sig. (2-tailed)	.000		.000	.000	.000
	Sum of Squares and Cross-products	135.168	343.769	100.185	274.803	252.791
	Covariance	.387	.985	.287	.787	.724
	N	350	350	350	350	350
ETC	Pearson Correlation	.453**	.437**	1	.730**	.508**
	Sig. (2-tailed)	.000	.000		.000	.000
	Sum of Squares and Cross-products	64.538	100.185	152.915	208.438	133.063
	Covariance	.185	.287	.438	.597	.381
	N	350	350	350	350	350
TI	Pearson Correlation	.420**	.642**	.730**	1	.764**
	Sig. (2-tailed)	.000	.000	.000		.000
	Sum of Squares and Cross-products	111.788	274.803	208.438	533.502	374.151
	Covariance	.320	.787	.597	1.529	1.072
	N	350	350	350	350	350
SEE	Pearson Correlation	.458**	.643**	.508**	.764**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	Sum of Squares and Cross-products	111.804	252.791	133.063	374.151	449.355
	Covariance	.320	.724	.381	1.072	1.288
	N	350	350	350	350	350

** Correlation is significant at the 0.01 level (2-tailed).

Note: “ AI=Artificial Intelligence, TA=Technology Adoption, ETC=Employee Collaboration Team, SEE=Socio-economic Environment, TA=Technological Innovation”.

In factor analysis and structural equation modelling, the Kaiser-Meyer-Olkin (KMO) test is a statistical tool used to evaluate the sampling appropriateness and analytical applicability of data. It determines whether a dataset's observed variables are appropriate for factor analysis (Abu-Bader & Jones, 2021). The KMO test calculates the percentage of variance among variables that could have underlying causes. It has a value range of 0 to 1, with higher values suggesting better factor analysis appropriateness. The KMO test ignores the impact of other factors and takes into account partial correlations as well as inter-correlations between variables. In general, good values over 0.7 or 0.8 signify that the dataset is suitable for factor analysis. A greater number shows that the variables share a lot of variance, which means that factor analysis is more likely to produce useful results. Values below 0.5 indicate that a factor analysis may not be feasible for the dataset. In these situations, it is advised to review the variables chosen, make changes to the measurement method, or collect additional data to increase the dataset's suitability. **Table 6** shows prefect and very good KMO value which is significant.

Table 6. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.717
Bartlett's Test of Sphericity	Approx. Chi-Square	1009.894
	df	10
	Sig.	.000

The curve tapers off symmetrically towards both ends and is steepest at the mean. The mean and standard deviation of the data determine the curve's shape. The statistical characteristics of normal distributions are clearly described.

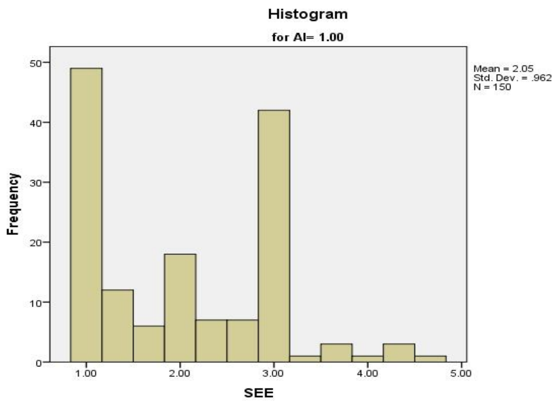

Figure 2. Data Normality Graph

In this model (**Figure 2**), original data serve as the dependent variable, and a group of randomly generated variables with normal distributions serve as the independent variable, sometimes referred to as normal scores. The normal scores are typically generated using the cumulative distribution function of the inverse of the normal distribution (Abu-Bader & Jones, 2021). After the regression model has been fitted, the differences between the actual values and the values predicted by the regression model, known as the residuals, can be investigated. If the residuals are normally distributed, it is likely that the original data is also normally distributed. **Table 7** shows there is significant relationship between employee collaboration team and socio-economic environment. So the hypothesis was accepted.

Table 7. KMO and Bartlett's Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics
		B	Std. Error	Beta			Tolerance
1	(Constant)	.931	.155		6.016	.000	
	ETC	.870	.079	.508	10.991	.000	1.000

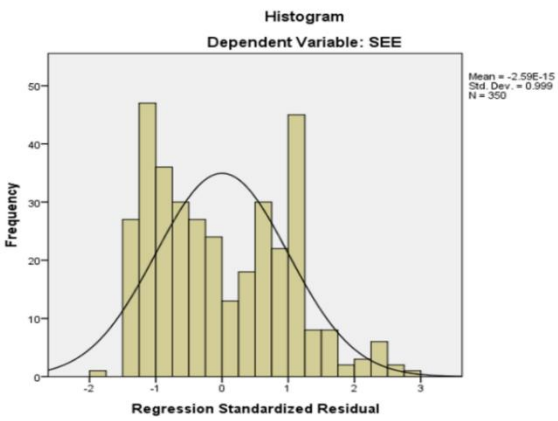

Figure 3. Direct Relationship

In this model (**Figure 3**), original data serve as the dependent variable, and a group of randomly generated variables with normal distributions serve as the independent variable, sometimes referred to as normal scores (Abu-Bader & Jones, 2021). The mediator variable in a mediation analysis provides an explanation for how and why the relationship between the independent and dependent variables exists. It determines whether the mediator variable fully or partially mediates the effect of the independent variable on the dependent variable. It offers insights into how interventions or treatments can affect outcomes through particular mediators and aids researchers in understanding the underlying processes or mechanisms by which variables are associated. **Table 8** represents that employee collaboration team has a significant role as a mediator between the relationships of artificial intelligence on socio-economic environment, the hypothesis was accepted. Also, **Table 8** represents that employee collaboration team has a significant role as a mediator between the relationships of technology adoption on socio-economic environment, the hypothesis was accepted.

Table 8. Mediating Effect

Model 4	Coefficient	T Value	P Value	ULCI	LLCI
Artificial Intelligence	0.5278	5.7879	0.0000	0.3484	0.7071
Technology Adoption	0.5954	12.0682	0.0000	0.4984	0.6925

A statistical method called moderation analysis is used to determine whether the relationship between two variables changes depending on the value of a third variable. The moderator is the name given to the third variable. The fundamental tenet of moderation is that the degree to which one variable influences another can influence the direction or strength of a relationship between two variables. Researchers can use moderation analysis to find out if the strength of the moderator variable affects how one variable affects another (Abu-Bader & Jones, 2021). The moderating effect sheds light on the circumstances or settings in which the relationship between X and Y is more or less significant. Boundary conditions are found, and theoretical justifications are improved. Researchers can use moderation analysis to comprehend the intricacy of relationships and to direct the creation of specialized interventions or strategies depending on various levels of the moderator.

Table 9. Moderating Effect

Model 1	Coefficient	T Value	P Value	ULCI	LLCI
Employee Collaboration Team* Technological Innovation-> Socio-Economic Environment	-0.0197	-3.0701	0.0023	-0.4957	-0.1086

Table 9 represents that Technological Innovation significantly moderates between the relationships of employee collaboration team on socio-economic environment, the moderation hypothesis was accepted. The moderating effect is also visible in **Figure 4**.

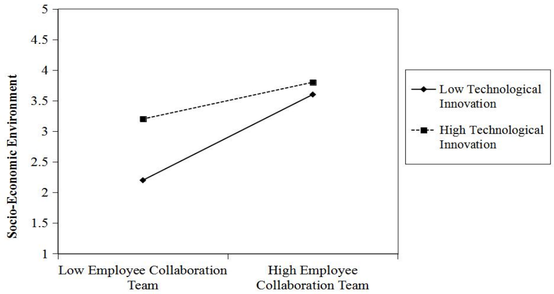

Figure 4. Moderation Effect

DISCUSSION

The socioeconomic environment has an effect on how artificial intelligence and technology are adopted, according to the current study. The dynamic capability hypothesis is also examined, along with the mediating and moderating effects of employee team collaboration and technology innovation on IT business personnel in China. Every hypothesis was accepted.

The results shows that employee team collaboration mediates the relationship between artificial intelligence and socio-economic environment. This emphasizes how crucial employee participation is in determining how AI will affect the socioeconomic environment of the nation's IT industry. With its quick breakthroughs in AI technology, China has become a prominent player in the international IT business. In this context, it is essential to comprehend how employee team collaboration affects the link between AI and the socio-economic environment in order to maximize potential benefits and minimize potential drawbacks (Seeber et al., 2020). The successful integration and application of AI in Chinese IT firms may depend on how well employees collaborate, according to the mediation impact of employee teamwork. Employees may work together to leverage the advantages of AI and promote socioeconomic progress when they collaborate and exchange knowledge, skills, and ideas. Collaboration among personnel in IT firms can have a number of advantageous effects. It first makes it possible to create creative AI applications and solutions that can raise productivity, efficiency, and competitiveness. Employees may tackle challenging challenges, explore creative uses for AI technologies, and explore new opportunities by combining their knowledge and skills through collaboration (Wijayati et al., 2022). Second, teamwork among employees helps to create an environment where AI is adopted and accepted. It promotes open communication, mutual trust, and support among staff members all of which are crucial for addressing the difficulties posed by the application of AI. IT firms in China may foster a culture where workers embrace AI as a tool for progress rather of seeing it as a threat to their jobs or future career opportunities by encouraging collaboration. Third, interdepartmental cooperation aids in bridging the gap between technological AI capabilities and socioeconomic environment needs. Collaboration among IT specialists can help them better comprehend the unique needs and difficulties of various industries and sectors, which will help them create AI solutions that are in line with China's socioeconomic objectives. This may spur social advancement, job growth, and economic development.

The results of this study indicate that employee team collaboration serves as a mediating factor in the relationship between technology adoption and the socio-economic environment. The socio-economic environment influences an organization's decision to adopt new technologies, and this relationship is further strengthened by the presence of collaborative team dynamics. When employees collaborate effectively, they contribute to a positive technology adoption environment, which is more likely to thrive in favorable socio-economic environments.

Collaboration across employee teams is essential to the success and expansion of businesses in all sectors. Understanding the effects of employee team collaboration on the socio-economic environment is crucial in the setting of China's IT sector, where businesses are developing quickly (Jiang, Liu and Jia, 2019). The purpose of this discussion is to examine the value of employee teamwork and how it affects the socioeconomic surroundings of Chinese IT firm employees.

The results shows that employee team collaboration has significant impact on socio-economic environment. This study highlights that employee team collaboration has a significant impact on the socio-economic environment. When employees work together collaboratively, they create an environment that fosters innovation, knowledge sharing, and productivity. This positive collaborative atmosphere can contribute to economic growth, market competitiveness, and overall socio-economic development. Therefore, organizations and policymakers should prioritize initiatives that promote and support employee team collaboration to enhance the socio-economic environment. By affecting variables like revenue generation, market share, and general organizational success, these technology improvements can have a direct effect on the socioeconomic environment (Zhu, Gardner, & Chen, 2018). Recognizing the value of collaboration and offering the required assistance and resources will help create a thriving socioeconomic environment for IT businesses, ensuring their long-term success in a technological environment that is always changing.

The results shows that technological innovation moderates the relationship between Employee team collaboration and socio-economic environment. The findings of this study suggest that technological innovation acts as a moderator in the relationship between employee team collaboration and the socio-economic environment. While employee team collaboration positively influences the socio-economic environment, the presence of technological innovation can further amplify this impact. When organizations embrace innovative technologies, they create a fertile ground for collaboration among employees, leading to enhanced socio-economic outcomes. Therefore, technological innovation serves as a catalyst in leveraging the positive effects of employee team collaboration on the socio-economic environment. Employee expertise and competencies are increased as a result of the quicker knowledge exchange, which promotes decision-making and problem-solving skills (Luo et al., 2016). Technological innovation fosters a culture of lifelong learning that improves the socioeconomic environment by encouraging flexibility, innovation, and competitive advantage.

CONCLUSION

The study's conclusions, which are consistent with the results, shed light on the major influence of the socioeconomic context on the adoption of technology and artificial intelligence (AI). However, it is critical to recognise the significance of taking into account an additional essential variable namely, the organizational model in future study. The relationship between the socioeconomic environment and technology adoption may be conditioned and influenced by the organizational model, which may serve as a possible mediator or moderator. The findings of this study suggest that organizations' propensity to adopt AI and other technology breakthroughs is significantly influenced by the socioeconomic environment. Technology adoption decision-making is directly influenced by elements including market competitiveness, regulatory frameworks, and economic stability. Businesses working in surroundings that are both economically thriving and supportive are more likely to adopt technological breakthroughs to obtain a competitive advantage. The importance of employee team collaboration is also highlighted in this study as a potential mediator between the socioeconomic environment and technology adoption. Effective teamwork encourages knowledge exchange, makes learning easier, and encourages the incorporation of new technology. The effect of the socioeconomic environment on technology adoption is likely to be increased in settings where people collaborate easily and have a same vision. The organizational structure also appears as a crucial variable that can help or hinder the adoption of technology. The willingness and agility to adopt AI and technical breakthroughs may vary across organizational structures and cultures. While more decentralised and flexible organizational models can promote experimentation and innovation, hierarchical and rigid models may hinder the adoption process. Therefore, more study is needed to understand how the organizational model affects the uptake of technology and interacts with the socio-economic context. Researchers and practitioners can better understand the complex dynamics at work and create specialised methods to boost technology adoption by taking the organizational model's influence into account. organizations may make informed decisions, encourage employee collaboration, and accelerate technology innovation in a way that is in line with their particular organizational environment by understanding how these elements interact.

IMPLICATIONS

The findings of the research have applications for China's IT industries, highlighting the value of taking the socioeconomic environment into account, encouraging employee collaboration, embracing technological innovation, and building adaptable skills. Theoretical ramifications include developing the dynamic capability theory, comprehending mediating and moderating effects, and placing results in a Chinese perspective. The study's conclusions emphasize the significance of taking the socioeconomic context into account when implementing artificial intelligence (AI) and technology in the IT industry. To make educated decisions on the use of technology, IT companies in China should do detailed analyses of the regional socioeconomic aspects, including market conditions, customer preferences, and regulatory landscape. IT businesses should place a high priority on fostering a collaborative work environment given the mediating influence of employee team collaboration. This can be accomplished by encouraging open communication, collaboration, and knowledge exchange among staff members. The adoption and utilization of AI and technology in IT firms can be improved by promoting cross-functional cooperation and offering platforms and tools that facilitate collaboration. The study emphasizes how the relationship between the socioeconomic environment and technology adoption can be moderated by technological innovation. Chinese IT firms should place a strong emphasis on funding technological developments and keeping abreast of new trends. To do this, it is necessary to allocate funds for research and development, promote an innovative culture, and use cutting-edge technologies to acquire a competitive advantage in the market. According to the dynamic capability concept, IT firms must be able to adjust and react to shifting socioeconomic situations. Agility, adaptability, and strategic foresight are examples of dynamic characteristics that organizations should concentrate on developing. They can thereby manage the changing environment, foresee market demands, and modify their technology adoption strategy as necessary. The study deepens our understanding of how innovation interacts with the socioeconomic environment and employee collaboration to influence technology adoption by examining the moderating effect of technical innovation. Our understanding of the boundary circumstances and variables that influence the relationship between the adoption of technology and the socioeconomic environment is improved by this. Findings in China are contextualized by the study, which adds to the literature by putting the socioeconomic elements affecting the adoption of new technologies in their proper historical and socioeconomic contexts. The study offers special insights into the Chinese IT industry. This advances knowledge of how dynamics of technology adoption are influenced by cultural, economic, and governmental aspects in a particular nation or region.

LIMITATIONS AND FUTURE RESEARCH

Researchers may expand our understanding of the intricate interactions between the socioeconomic environment, technology adoption, employee engagement, and organizational outcomes in the context of IT businesses in China by addressing research constraints and exploring future study paths. The capacity to demonstrate causation and investigate the long-term impacts of the variables under study is constrained by this approach. To explore relationships across time and gauge how changes in the socioeconomic environment affect technology adoption, future research may use longitudinal methods. The study depends on self-reported data, which could be subject to social desirability bias and common method bias. Participants may give answers that match expectations or give a good impression of their organization. To improve the validity of the results, future study can use a variety of data sources, such as objective performance indicators or supervisor ratings. The study analyses data using SPSS software, which offers a variety of statistical approaches but may have limitations when dealing with complex relationships or sophisticated statistical modelling. In order to give a more thorough study of the correlations between variables, future research could investigate different statistical methodologies, such as structural equation modelling or sophisticated machine learning algorithms. Future directions for research Although the current study uses a quantitative methodology, qualitative studies may be used in the future to supplement the quantitative results. It may be possible to gain valuable insights into the contextual variables impacting the interaction between the socioeconomic environment, technology adoption, and employee collaboration through in-depth interviews or focus groups with IT business personnel. Future study may make use of longitudinal approaches to capture the dynamic nature of the interactions. With a more complete understanding of the processes at play, this would make it possible to examine changes in the socioeconomic environment, patterns of technology uptake, and mediating and moderating impacts across time. Comparative research across several nations or regions could improve our comprehension of how the socioeconomic environment affects the adoption of technology in varied circumstances. Insights into the particular difficulties and chances faced by IT companies in various contexts could be gained by comparing developed and emerging economies.

ACKNOWLEDGEMENT

This work is funded by the Scientific Research Program funded by Shaanxi Provincial Education Department (Program No.21JK0286).

REFERENCES

Abu-Bader, S., & Jones, T. V. (2021). Statistical mediation analysis using the sobel test and hayes SPSS process macro. International Journal of Quantitative and Qualitative Research Methods, 9(1), 42-61.

https://doi.org/10.37745/ijqqrm.13

Adebayo, T. S., & Kirikkaleli, D. (2021). Impact of renewable energy consumption, globalization, and technological innovation on environmental degradation in Japan: application of wavelet tools. Environment, Development and Sustainability, 23(11), 16057-16082. https://doi.org/10.1007/s10668-021-01322-2

Amoako, G., Omari, P., Kumi, D. K., Agbemabiase, G. C., & Asamoah, G. (2021). Conceptual framework—artificial intelligence and better entrepreneurial decision-making: the influence of customer preference, industry benchmark, and employee involvement in an emerging market. Journal of Risk and Financial Management, 14(12), 604. https://doi.org/10.3390/jrfm14120604

Cha, J., Kim, Y., Lee, J. Y., & Bachrach, D. G. (2015). Transformational leadership and inter-team collaboration: Exploring the mediating role of teamwork quality and moderating role of team size. Group & Organization Management, 40(6), 715-743. https://doi.org/10.1177/1059601114568244

Chatterjee, S., Chaudhuri, R., Kamble, S., Gupta, S., & Sivarajah, U. (2022). Adoption of artificial intelligence and cutting-edge technologies for production system sustainability: A moderator-mediation analysis. Information Systems Frontiers, 1-16. https://doi.org/10.1007/s10796-022-10317-x

Chen, M., Sinha, A., Hu, K., & Shah, M. I. (2021). Impact of technological innovation on energy efficiency in industry 4.0 era: Moderation of shadow economy in sustainable development. Technological Forecasting and Social Change, 164, 120521. https://doi.org/10.1016/j.techfore.2020.120521

Cheng, Y., Awan, U., Ahmad, S., & Tan, Z. (2021). How do technological innovation and fiscal decentralization affect the environment? A story of the fourth industrial revolution and sustainable growth. Technological Forecasting and Social Change, 162, 120398. https://doi.org/10.1016/j.techfore.2020.120398

Chiu, C. N., & Yang, C. L. (2019). Competitive advantage and simultaneous mutual influences between information technology adoption and service innovation: Moderating effects of environmental factors. Structural Change and Economic Dynamics, 49, 192-205. https://doi.org/10.1016/j.strueco.2018.09.005

E Downes, P., Gonzalez-Mulé, E., Seong, J. Y., & Park, W. W. (2021). To collaborate or not? The moderating effects of team conflict on performance - prove goal orientation, collaboration, and team performance. Journal of Occupational and Organizational Psychology, 94(3), 568-590. https://doi.org/10.1111/joop.12360

Gevers, J. M. P., Rispens, S., & Li, J. (2016). Pacing style diversity and team collaboration: The moderating effects of temporal familiarity and action planning. Group Dynamics, 20(2), 78-92. https://doi.org/10.1037/gdn0000049

Hoyland, T., Psychogios, A., Epitropaki, O., Damiani, J., Mukhuty, S., & Priestnall, C. (2021). A two-nation investigation of leadership self-perceptions and motivation to lead in early adulthood: the moderating role of gender and socio-economic status. Leadership & Organization Development Journal, 42(2), 289-315. https://doi.org/10.1108/LODJ-03-2020-0112

Huda, M. (2019). Empowering application strategy in the technology adoption: Insights from professional and ethical engagement. Journal of Science and Technology Policy Management, 10(1), 172-192. https://doi.org/10.1108/JSTPM-09-2017-0044

Jiang, H., Liu, W., & Jia, L. (2019). How humble leadership influences the innovation of technology standards: A moderated mediation model. Sustainability (Switzerland), 11(19). https://doi.org/10.3390/su11195448

Kavandi, H., & Jaana, M. (2020). Factors that affect health information technology adoption by seniors: A systematic review. Health and Social Care in the Community, 28(6), 1827-1842. https://doi.org/10.1111/hsc.13011.

Khan, I., & Hou, F. (2021). The Impact of Socio-economic and Environmental Sustainability on CO2 Emissions: A Novel Framework for Thirty IEA Countries. Social Indicators Research. Springer Netherlands. https://doi.org/10.1007/s11205-021-02629-3

Lathen, L., & Laestadius, L. (2021). Reflections on Online Focus Group Research With Low Socio-Economic Status African American Adults During COVID-19. International Journal of Qualitative Methods, 20, 1-10. https://doi.org/10.1177/16094069211021713

Leesakul, N., Oostveen, A. M., Eimontaite, I., Wilson, M. L., & Hyde, R. (2022). Workplace 4.0: Exploring the implications of technology adoption in digital manufacturing on a sustainable workforce. Sustainability, 14(6), 3311. https://doi.org/10.3390/su14063311

Liu, H. Y., Wang, I. T., Hsu, D. Y., Huang, D. H., Chen, N. H., Han, C. Y., & Han, H. M. (2020). Conflict and interactions on interdisciplinary nursing student teams: The moderating effects of spontaneous communication. Nurse Education Today, 94, 104562. https://doi.org/10.1016/j.nedt.2020.104562

Lu, Z., Mahalik, M. K., Mallick, H., & Zhao, R. (2022). The moderating effects of democracy and technology adoption on the relationship between trade liberalisation and carbon emissions. Technological Forecasting and Social Change, 180, 121712. https://doi.org/10.1016/j.techfore.2022.121712

Luo, Y., Wang, Z., Zhang, H., & Chen, A. (2016). The influence of family socio-economic status on learning burnout in adolescents: Mediating and moderating effects. Journal of Child and Family Studies, 25, 2111-

2119. https://doi.org/10.1007/s10826-016-0400-2

Lv, C., Shao, C., & Lee, C. C. (2021). Green technology innovation and financial development: Do environmental regulation and innovation output matter?. Energy Economics, 98, 105237. https://doi.org/10.1016/j.eneco.2021.105237

Nawaz, A., & Guribie, F. L. (2022). Impacts of institutional isomorphism on the adoption of social procurement in the Chinese construction industry. Construction Innovation. Emerald Publishing Limited, ahead-of-p(ahead-of-print). https://doi.org/10.1108/CI-02-2022-0035

Nazir, S., Khadim, S., Asadullah, M. A., & Syed, N. (2023). Exploring the influence of artificial intelligence technology on consumer repurchase intention: The mediation and moderation approach. Technology in Society, 72, 102190. https://doi.org/10.1016/j.techsoc.2022.102190

Nguyen, T. M., & Malik, A. (2022). Impact of knowledge sharing on employees' service quality: the moderating role of artificial intelligence. International Marketing Review, 39(3), 482-508. https://doi.org/10.1108/IMR-02-2021-0078

Nouraldeen, R. M. (2022). The impact of technology readiness and use perceptions on students' adoption of artificial intelligence: the moderating role of gender. Development and Learning in Organizations, 37(3), 7-10. https://doi.org/10.1108/DLO-07-2022-0133

Ogunfowora, B., Stackhouse, M., Maerz, A., Varty, C., Hwang, C., & Choi, J. (2021). The impact of team moral disengagement composition on team performance: The roles of team cooperation, team interpersonal deviance, and collective extraversion. Journal of Business and Psychology, 36, 479-494. https://doi.org/10.1007/s10869-020-09688-2

Rabbani, M. R., Lutfi, A., Ashraf, M. A., Nawaz, N., & Ahmad Watto, W. (2023). Role of artificial intelligence in moderating the innovative financial process of the banking sector: a research based on structural equation modeling. Frontiers in Environmental Science, 10, 2083. https://doi.org/10.3389/fenvs.2022.978691

Sandra Marcelline, T. R., Chengang, Y., Ralison Ny Avotra, A. A., Hussain, Z., Zonia, J. E., & Nawaz, A. (2022). Impact of green construction procurement on achieving sustainable economic growth influencing green logistic services management and innovation practices. Frontiers in Environmental Science, 9. https://doi.org/10.3389/fenvs.2021.815928

Seeber, I., Bittner, E., Briggs, R. O., De Vreede, T., De Vreede, G. J., Elkins, A., ... & Söllner, M. (2020). Machines as teammates: A research agenda on AI in team collaboration. Information & management, 57(2), 103174. https://doi.org/10.1016/j.im.2019.103174

Sun, H., Edziah, B. K., Kporsu, A. K., Sarkodie, S. A., & Taghizadeh-Hesary, F. (2021). Energy efficiency: The role of technological innovation and knowledge spillover. Technological Forecasting and Social Change, 167, 120659. https://doi.org/10.1016/j.techfore.2021.120659

Urbano, D., Guerrero, M., Ferreira, J. J., & Fernandes, C. I. (2019). New technology entrepreneurship initiatives: Which strategic orientations and environmental conditions matter in the new socio-economic landscape?. The Journal of Technology Transfer, 44, 1577-1602. https://doi.org/10.1007/s10961-018-9675-3

Wijayati, D. T., Rahman, Z., Rahman, M. F. W., Arifah, I. D. C., & Kautsar, A. (2022). A study of artificial intelligence on employee performance and work engagement: the moderating role of change leadership. International Journal of Manpower, 43(2), 486-512. https://doi.org/10.1108/IJM-07-2021-0423

Yu, T. K., Lin, M. L., & Liao, Y. K. (2017). Understanding factors influencing information communication technology adoption behavior: The moderators of information literacy and digital skills. Computers in Human Behavior, 71, 196-208. https://doi.org/10.1016/j.chb.2017.02.005

Zeng, X., Li, S., & Yousaf, Z. (2022). Artificial Intelligence Adoption and Digital Innovation: How Does Digital Resilience Act as a Mediator and Training Protocols as a Moderator?. Sustainability (Switzerland), 14(14). https://doi.org/10.3390/su14148286

Zhang, W., Zhao, Y., Tian, L., & Liu, D. (2017). Boundary-spanning demand-side search and radical technological innovations in China: The moderation of innovation appropriability. Management Decision, 55(8), 1749-1769. https://doi.org/10.1108/MD-04-2016-0236

Zhang, Y., Khan, U., Lee, S., & Salik, M. (2019). The influence of management innovation and technological innovation on organization performance. A mediating role of sustainability. Sustainability, 11(2), 495. https://doi.org/10.3390/su11020495

Zhu, Y. Q., Gardner, D. G., & Chen, H. G. (2018). Relationships Between Work Team Climate, Individual Motivation, and Creativity. Journal of Management, 44(5), 2094-2115. https://doi.org/10.1177/0149206316638161