



Perceived organizational support as mediator between digital social media influence on technological innovation

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Abstract

Aim: In this research, we examine the role that knowledge workers' perceptions of organizational support play as a moderator between the impact of their social media use and their companies' willingness to invest in new forms of technology.

Methodology: The data was analyzed using survey responses from 415 knowledge workers in Indian IT companies.

Findings: These results show that digital learning benefits employees' perceptions of their organizations' support for their professional development. The study's results also established a link between social media, e-learning, and technological advancement.

Implications/Novel Contribution: The findings of this study have far-reaching implications for knowledge workers and management in India, who may increase the perceived organizational support as a mediator between the influence of digital social media on the technological innovation of knowledge workers working in IT companies in India.

Keywords: Perceived Organizational Support, Digital Social Media, Technological Innovation, IT Companies, Digital Learning.

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INTRODUCTION

The IT industry in India has taken a leading role in promoting the country's economic standing internationally. Demand for both required and voluntary reporting of positive action efforts is on the rise, which is evidence of the growing desire for corporations to be transparent and accountable in today's world (Raju & Rao, 2020). The country's IT industry actively seeks this result for the Indian economy. Aside from being a significant factor in India's booming economy, this separation has far-reaching effects on the country's households. Coaching, job exports, and IT services are part of India's booming IT industry (Shetty, Pakkala, & Mallikarjunappa, 2012). Eight percent of India's GDP in 2020 came from the information technology industry. It is anticipated that by the end of the fiscal year 2022, the IT industry will have earned \$227 billion. The IT industry is expected to bring in \$49 billion in revenue and contribute \$178 billion to the economy in the next fiscal year, 2022. Nearly half a million people worked in the information technology industry in the Financial Year 2022 (Raju & Rao, 2020; Shetty et al., 2012).

Technological innovation is developing and implementing novel technical solutions to existing problems (Borah & Akhtar, 2022; Roh, Park, & Xiao, 2022). Direct marketing introduces consumers to novel products, services, or manufacturing processes. Using technology, modernization, computer vision, and intelligent systems threaten traditional methods. Both Yu, Qian, and Chen (2022); Zahoor, Donbesuur, Christofi, and Miri (2022) agree that technological innovation in the form of new products, applications, and techniques can give businesses an edge in today's fast-paced markets. Many different outcomes, such as organizational effectiveness (Roh et al., 2022), future product success (Le & Lei, 2019), and global performance (Borah & Akhtar, 2022; Zahoor et al., 2022), may be affected by technological innovation.

Because of shifts in business practices and technological developments, IT companies have increased their use of digital learning tools (Zahoor et al., 2022). Some examples include digital earning benefits, employee engagement platforms, social networking platforms, and content production tools (Poultsakis, Papadakis, Kalogianakis, & Psycharis, 2021). The online world provides numerous opportunities for youth to develop their potential

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for action, talents, understanding, and perspective to overcome depression through study (Izhar, Baharuddin, Mohamad, & Wan Hasnol, 2016). The term "digital learning" refers to a wide range of educational pursuits that use computer-based teaching and learning methods. It also discusses the role of ICTs in facilitating distance learning and open educational resources (Börnert-Ringleb, Casale, & Hillenbrand, 2021; Chen & Eyoun, 2021).

Increased foreign language education is needed because of the increasing use of digital technologies, especially in underdeveloped areas that lack access to adequate infrastructure. Digital technologies have matured into potent tools for the instruction and acquisition of languages, claims Pangrazio and Sefton-Green (2021). Electronic methods of learning other languages have emerged as the most engaging to meet the needs of today's digital natives. In this context, "digital literacy" refers to familiarity with and competence in using digital technologies and resources (Alakrash & Abdul Razak, 2021). Like the ideas of what it means to be "digital," which are theoretical and applied, our understanding of what it means to be "literate" is incomplete.

It is widely accepted that companies' use of social media is now indispensable (Salvador, Moreira, & Pitacho, 2022). Because of the ease with which Taobao can facilitate interaction between numerous individuals, it is seeing growing use as an advertising medium in India (Delafrooz, Farokhbakht Foomani, & Khosravi, 2017). Social media is one of many thriving industries that could benefit from more innovation and progress. Communication between customers and companies via social media is now the norm. Half of all customers who use social media sites like Facebook, LinkedIn, and Twitter have "friended" businesses they are interested in and/or have chosen to receive emails from (Borah & Akhtar, 2022; Chernyak-Hai, 2018). Customers' willingness to engage with brands on social media is reasonably consistent. Therefore, social media provides businesses with a convenient and discreet channel for communicating with their customers. Because of this, 98% of Fortune 500 companies use social media (Smith & Smith, 2021). 95% of Inc. 500 companies use social media as a marketing strategy (Chamberlain, Rudolph, & Smith, 2018; Zahoor et al., 2022).

"the implementation of an idea for a new product or a new service or the introduction of new elements in an organization's production process or service operation" is what this study contributes to the use of mediators as perceived organizational support (Bernarto, Bachtiar, Sudibjo, Suryawan, & Masduki, 2020). Perceived organizational support is the degree to which employees believe their employer cares about them as individuals and values the work they do (Le & Lei, 2019; Oubibi, Fute, Xiao, Sun, & Zhou, 2022). When employees see that their employer practices what they preach and looks out for their best interests, they are more likely to trust the company's assistance.

Knowledge workers in Indian IT companies are the focus of the current study, which examines the impact of digital social media on technological innovation and the role that perceived organizational support plays as a mediator between these two factors. In this research, we developed our social exchange theories and resource-based perspective. One definition of social exchange theory is "a concept based on the notion that a relationship between two people is created through a cost-benefit analysis" (Chernyak-Hai, 2018). It suggests that resources that are valuable, rare, difficult to imitate, and non-substitutable best position a firm for long-term success, (Dubey, Gunasekaran, Childe, Blome, & Papadopoulos, 2019) in a big paper on resource-based view theory. These tools can be the basis for learning valuable techniques that will lead to outstanding results in the long run (Dubey et al., 2019). These theories underpin the proposed conceptual framework that is the subject of the present study's empirical investigation. This research aims to identify and complete the following research objectives.

1. Digital learning significantly influences Perceived organizational support.
2. Digital literacy significantly influences Perceived organizational support.
3. Social media usage significantly influences Perceived organizational support.
4. Perceived organizational support significantly influences technological innovation.
5. Perceived organizational support mediates the relationship between digital learning, digital literacy, social media usage, and technological innovation.

LITERATURE REVIEW

This study examines the role of perceived organizational support as a mediator between the impact of digital social media on the technological innovation of knowledge workers in Indian IT firms. The present research developed its unique theoretical framework for understanding social interactions grounded in a resource-based

perspective. Social exchange theory assumes that all interpersonal interactions can be reduced to a series of cost-benefit calculations (Chernyak-Hai, 2018). According to social exchange theory, the pros and cons of a relationship determine whether or not we continue being friends with someone (Chernyak-Hai, 2018). Resources that are valuable, rare, difficult to duplicate, and non-substitutable are the ones that set a company up for long-term success, according to the resource-based view theory (Dubey et al., 2019). These qualities can be the basis for expanding a company's capabilities, which may lead to better results. It takes expertise to pool, coordinate, and deploy resources in a way that benefits customers and sets you apart from competitors who are smaller in scale (Dubey et al., 2019).

Digital Learning and Perceived Organizational Support

According to Scully, Lehane, and Scully (2021) and (Dubey et al., 2019) proposed digital learning first. Web-based training, internet mentoring, online courses, networked learning, and virtual classrooms are just a few terms that have emerged due to the proliferation of digital tools for education. Digital learning, as defined by Börnert-Ringleb et al. (2021), is the process of imparting knowledge through the dissemination of digital media (such as text or images) via the Internet. In addition to facilitating students' comprehension of the material, the instructional materials and methods were designed to improve teachers' effectiveness or further students' skills, and knowledge (Sailer, Murböck, & Fischer, 2021). The introduction of processors and telecommunication network sources into learning environments effectively overcame the limitations of time, place, and routine and accomplished instructor-led, individualized learning. With the proliferation of information and knowledge in the modern world, digital learning, professionals, and businesses are adopting (Alakrash & Abdul Razak, 2021) across various sectors. Individuals' motivation to construct novel knowledge arrangements, whether working alone or in groups, significantly impacts their experience of digital learning (Lin & Chen, 2017). Motive is the internal force that compels people to act ethically and put in the time and effort necessary to become experts in their field (Poultsakis et al., 2021). Furthermore, inspiration motivates workers to combine disparate pieces of information in novel ways, allowing them to convert workplace tension into innovation (Sailer et al., 2021; Scully et al., 2021; Zahoor et al., 2022).

Perceived organizational support is the extent to which employees believe their employer respects their work, prioritizes their well-being, and advocates for their political and social needs (Bernarto et al., 2020). Perceived organizational support uses the Social Exchange Theory, which studies employee behavior by analyzing their interpersonal interactions with one another (Chen & Eyoun, 2021; Jeong & Kim, 2022). The theory uses a cost estimation that considers the impact of perceived organizational support, growth, and sustainability to determine the potential downsides and upsides. Which assumes that workers give their time and energy in exchange for tangible (i.e., pay and perks) and intangible (i.e., social and economic benefits), explains organizational support perceptions in great detail (Alamanda, Ramdhani, Susilawati, & Hadi, 2019).

Digital Literacy and Perceived Organizational Support

The ability to use digital resources effectively is often referred to as "digital literacy" (Tohara, 2021). Like theoretical and literal conceptions of the "digital," understandings of what constitutes "literacy" are murky. However, the criteria for what constitutes digital literacy have become increasingly nuanced over time (Liu et al., 2022; Mardiani, Anis, & Hermawan, 2020). The ability to "ingest the information, analyze it, and recombine it" is at the heart of what Pangrazio and Sefton-Green (2021) calls "digital literacy," or the assembly of knowledge. However, as time goes on and digital spaces, texts, and technologies advance, so too do the standards for what it means to be "literate" in such a space (Pangrazio & Sefton-Green, 2021). This may be why we tend to use overly general definitions. There needs to be a focus on increasing digital literacy in various settings to take the necessary ethical, and technological actions (Li & Yu, 2022). As a set of skills and habits that can have long-lasting effects on one's sense of self, digital literacy deserves more attention in the classroom (Alakrash & Abdul Razak, 2021). Literacy can describe the process by which people learn to interact on/in networks that data and the pedagogical authority given to programs to enshrine users' methods of knowing, experiencing, and acting.

Stress in IT firms and a decline in employee productivity and happiness have been linked to the increasing rate of technological innovation (Bernarto et al., 2020). This is due to the complex and knowledge-based nature

of the creative process. Employees' confidence in receiving organizational backing can boost their capacity for technological innovation. Organizational support, as defined by [Chen and Eyoun \(2021\)](#), suggests a connection between employee perceptions of how much their employer appreciates them and the factors contributing to their sense of belonging at work ([Le & Lei, 2019](#); [Oubibi et al., 2022](#)). If employees have the impression that their company is following fair and ethical practices, they are more likely to trust the advice they receive from management ([To & Huang, 2022](#)). Therefore, it plays a pivotal role through technological innovation in Indian IT organizations in enhancing the connection between perceived organizational support and digital literacy.

Social Media Usage and Perceived Organizational Support

Connections between individuals can be strengthened through the use of social media. Because humans are social beings, they seek opportunities to connect with others ([Borah & Akhtar, 2022](#); [Chamberlain et al., 2018](#)). This desire extends to the employees of the companies with which they do business, especially those in the IT sector. With the help of social media tools, companies can now monitor and assess how their target audiences perceive their brands ([Salvador et al., 2022](#)). A business perspective on social media is how it can be used for advertising and promotion. Customers are more likely to talk about a company's products or services if they actively engage with the brand on popular social media sites like Facebook, Twitter, and other messaging apps. Promoting brand awareness and interest through social media is a cutting-edge advertising method ([Smith & Smith, 2021](#)).

Furthermore, this research focuses on how companies can use social media to inform their stakeholders about their operations' environmental impacts. Provide valuable, helpful content to your audience on social media. The knowledge that helps inform or clarify is precious when dealing with insurance-related topics. Using social media to quickly disseminate information to one's clientele or the general public is a valuable skill ([Delafruz et al., 2017](#); [Merzougui, 2018](#)). Spreading company news gives the impression that your company is approachable and trustworthy ([Zahoor et al., 2022](#)). People are also interested in learning about a company's community and environmental outreach efforts as part of its corporate social responsibility (CSR) initiatives.

According to [Chen and Eyoun \(2021\)](#), a company widely believed to have its employees' backs is more likely to provide its workers with challenging tasks, thorough training, and ample opportunities for advancement. This treatment satisfies the worker's perceived need for social and emotional acceptance, consideration, and respect ([Salvador et al., 2022](#)). Employees who perceive their employer's value and care about them are less likely to experience work-life conflicts, anxiety, and role ambiguity. They also report better financial performance ([Qi, Liu, Wei, & Hu, 2019](#); [Salvador et al., 2022](#)). As a result, employees who feel strongly supported by their employers are more likely to participate in issue campaigns promoting technological innovation ([Bernarto et al., 2020](#)).

Perceived Organizational Support and Technological Innovation

Perceived organizational support is "the collective belief of participants that the organization recognizes my contribution and regards my well-being" [Bernarto et al. \(2020\)](#). Prior research on perceived organizational support has found that people will behave well within an organization if it values its workers and is concerned about its technological innovation ([To & Huang, 2022](#); [Wen, Huang, & Hou, 2019](#)). By emphasizing the importance of fairness, social exchange theory [Chernyak-Hai \(2018\)](#) encourages relational parties to become more closely bound together and take more personal responsibility for the quality of their interactions. It's a central principle in the study of human behavior. Humans are hardwired with a desire to return good deeds. This desire exists ([Chen & Eyoun, 2021](#); [Chernyak-Hai, 2018](#)), much like the need for interaction with other people. The members of an organization will start to appreciate the organization and make an effort to not only have positive behavior and attitude. It also starts producing positive results for the organization when they realize that the organization values their ability to contribute and genuinely cares about them ([Borah & Akhtar, 2022](#); [Börnert-Ringleb et al., 2021](#)). This is because members treated well by the organization will come to respect and trust it and will feel compelled to repay it with their labor and royalties ([Dubey et al., 2019](#); [Jeong & Kim, 2022](#)). Individuals' positive thoughts, deeds, and outcomes concerning the organization must be fostered for its success. One of the most influential factors in members' mindsets and actions is their belief in the organization's backing.

Technological innovation is how new products, applications, and procedures are developed and introduced into the market ([Yu et al., 2022](#); [Zahoor et al., 2022](#)). The emphasis is on direct consumer presentation of new

products, services, or production methods (Roh et al., 2022). Organizations in the information technology sector view technological innovation as highly desirable because it helps them gain an advantage in the market (Karmaker, Hosan, Chapman, & Saha, 2021). Most works on technological innovation can be summarised as follows by (Liu et al., 2022; Ulucak, 2021; Wang, Umar, Akram, & Caglar, 2021). By identifying and capitalizing on market openings, businesses in the IT sector can boost their productivity and profitability. Even though this field of study has focused on a wide variety of important metrics, such as economic growth, foreign market success, and sustainable growth (Roh et al., 2022; Ulucak, 2021; Wang et al., 2021), it is notable that little attention has been paid to worker performance, which is one of the important sources of advantage. Employee organizational support can be significantly increased with even modest levels of technological innovation. More than that, though, technological innovation necessitates trying out novel ideas and unorthodox methods of operation (Yu et al., 2022; Zahoor et al., 2022).

Mediating Role of Perceived Organizational Support

Furthermore, the standards of reciprocity within an organization often contribute to how much support an employee feels they receive from their superiors (Bernarto et al., 2020; Chen & Eyoun, 2021). IT workers who feel more appreciated at work are more likely to volunteer and perform better than their counterparts at companies where these sentiments are not shared (Jeong & Kim, 2022). Consequently, this can spur additional innovation within the IT sector. In particular, workers who experience high levels of organizational support are more likely to see the positive effects of technological innovation on their ability to do their jobs, the success of the projects they work on, and their ability to make sound decisions (To & Huang, 2022; Wen et al., 2019). Workers' happiness is increased, and the positive effects of technological progress are magnified. "global beliefs generated by employees concerning the extent to which the organization values their contributions and cares for their wellbeing," as defined by Oubibi et al. (2022). In other words, an organization's willingness to acknowledge employee effort and meet their need for affirmation and appreciation can be gauged by how much support they receive from within the organization. Support from management is predicted to boost employees' faith in the company's ability to compensate them for contributing to the achievement of organizational goals (Jeong & Kim, 2022; Le & Lei, 2019). Positive emotions generated by organizational support can be valuable adaptive assets in the face of social inequity and stresses (Aban, Perez, Ricarte, & Chiu, 2019; Bernarto et al., 2020; Chen & Eyoun, 2021). As a result, the target may reevaluate their views on racism, sexism, ageism, and other prejudices (Wen et al., 2019).

As workers have the propensity to behave better to repay the beneficial effects of the business, perceived organizational support is seen as the company's input to a beneficial exchange with them. Workers who have faith in their company's ideals and put up their best effort to ensure its success will believe in those values, according to Salvador et al. (2022). According to Zahoor et al. (2022), perceived organizational support is the impression employees form about how much their company values their contributions and cares about technological innovation. It was discovered that perceived organizational support increases employees' commitment and motivates them to give back by helping the firm achieve its goals (Bernarto et al., 2020; Le & Lei, 2019; Salvador et al., 2022).

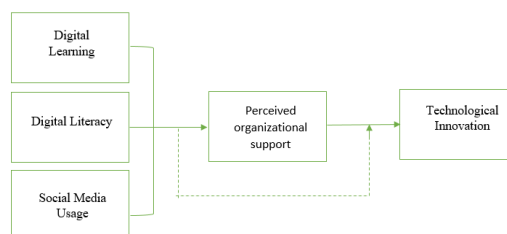


Figure 1. Conceptual framework

METHODOLOGY

Resource-based view theory and Social exchange theory provided support for the establishment of the conceptual framework for the study as well as its hypotheses. Determine the perceived organisational support in the current study as a mediator between knowledge workers working in Indian IT organizations and the influence

of digital social media on technical innovation. These organizations were sent an email with a link to the online survey, a short summary of the study's objectives, and an invitation to participate. This study used non-probability sampling based on a practical sample method, which was appropriate given the size and nature of the investigation. Businesses in the industry will have considerable staff loss and fierce hiring rivalry in 2022. 5 million individuals are employed across the entire IT business as of May 2022. According to Strategic Assessment, the IT sector can develop at a rate of 11–14% and reach the lofty goal of US\$ 350 billion by financial year (Raju & Rao, 2020). Data will be collected from 415 knowledge workers working in IT companies in India.

Participants

This research focuses on workers in the information technology industry in India. After acquiring the contact information for 650 knowledge workers in Indian IT organizations from the appropriate department, a cover letter and survey questionnaire were sent to each contact to solicit their voluntary participation in this study. Since the survey was conducted in English, it was requested that respondents indicate their proficiency in the language in the cover letter. Moreover, the participants' identities and responses were never revealed; only the aggregate results were shared. 150 Indian IT professionals who work in the knowledge sector initially declined to participate due to language barriers and scheduling conflicts. The authors report that 500 willing participants who understood the survey's language provided their informed consent without prompting. We gave these 500 IT experts in India three weeks to fill out our survey and send it back to us. Once two weeks had passed and no response, the authors began calling those who had yet to reply. Complete data collection was conducted between August 25 and September 25 of 2022. After receiving 415 finished surveys, the authors decided to stop their data collection. Ultimately, 415 out of 650 knowledge workers in Indian IT organizations responded to the surveys, with a response rate of 64%. The sample for this study was chosen using a method that is both realistic and systematic. The term "sample collection method" describes this practice: "collecting samples that are conveniently available close to a location or Internet service" (Hair et al., 2021). The PLS-SEM Smart PLS 3 method analyzes the data and tests the study's hypotheses.

Measurement Scale

A 25-item questionnaire was devised to determine the perceived organizational support as a mediator between digital social media influence on technological innovation of knowledge workers working in IT companies in India and social exchange theory and resource-based view theory.

1. A 3-item scale of digital learning was adopted by [Ridwan, Baedhowi, and Noviani \(2020\)](#). Items include "I often use digital technologies to enhance my understanding of school course materials in informal learning contexts". The responses were collected by a "7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree".

2. A 5-item scale of digital literacy was adopted by [Reddy, Chaudhary, Sharma, and Hussein \(2022\)](#). Items include "Using Google to search for topics". The responses were collected by a "7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree".

3. An 8-item scale of social media usage was adopted by [Fornell and Larcker \(1981\)](#). Items include "Our firm uses social media for branding". The responses were collected by a "7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree".

4. A 5-item scale of perceived organizational support was adopted by [Zahoor et al. \(2022\)](#). Items include "Management strongly considers my goals and values". The responses were collected by a "7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree".

5. A 4-item scale of technological innovation was adopted by [Zahoor et al. \(2022\)](#). Items include "The organization continues to adopt the latest technology in products or processes". The responses were collected by a "7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree".

ANALYSIS

A preliminary analysis of the collected data from the 415 participants is presented in Table 1, which details the demographics and descriptive statistics of the sample for the current study. The measurement and structural models were analyzed using SmartPLS3. This study used social exchange theory and resource-based view theory to examine the impact of digital social media on technological innovation among knowledge workers in Indian IT firms. An evaluation of the resulting model revealed that workers' gender, age, number of years in the workforce, and most recent level of education all played significant roles in this relationship.

Table 1: Demographic profile

Demography	Description	No. of Responses	%
Gender	Male	230	55
	Female	185	45
Age	20-30	90	21
	30-40	190	46
	Above 40	135	33
Working Years	2 year	110	27
	v 3 year	180	43
	More than 3 years	125	30
Last Qualification	BS/BBA	290	70
	MS/M.Phil	125	30

In the table above, the gender of the working male was 55%, and the female was 45%. Knowledge workers aged 20-30 was 21%, age 30-40 was 46% and above 40 was 33%. Working years in an organization of workers two years was 27%. 3 years was 43%, while more than 3 years was 30%. BS/BBA qualified 70% of respondents, while 30% were MS/M. Phil qualified knowledge workers from IT companies in India.

Measurement Model

The data from 310 managers were first analyzed with PLS-SEM to determine its factor loadings, validity, and reliability. The factor loadings, validity, and reliability of the items used in the PLS measurement model are shown in Table 2. Cronbach's alpha, a standard method for assessing an item's internal consistency, should be at least 0.70 (Fornell & Larcker, 1981). Cronbach's alpha and criterion reliability had values greater than 0.70 for the factors we looked at. When the Average Variance Extracted (AVE) values for discriminant validity were more significant than 0.50, it demonstrated convergence validity, and high reliability (Fornell & Larcker, 1981). The CR values exceeded the minimum requirement of 0.70, ranging from 0.836 to 0.918.

Table 2: Composite reliability, Cronbach's Alpha and AVE values

Constructs/Items	CA	Rho-A	CR	AVE
Digital Learning	0.728	0.926	0.836	0.655
Digital Literacy	0.844	0.859	0.889	0.617
Perceived organizational support	0.882	0.883	0.918	0.738
Social Media Usage	0.869	0.888	0.897	0.523
Technological innovation	0.796	0.810	0.867	0.622

Note: CR = Composite Reliability; AVE = Average Variance Extracted; CA = Cronbach's Alpha"

Additionally, the discriminant validity of any study design must be demonstrated. Fornell and Larcker (1981) defined discriminant validity as "the extent to which a given latent variable differs from other latent variables". We undertook additional research for structural analysis based after determining that all of the requirements for the reliability and validity of the variables had been met. The HTMT scores below one further support the discriminant validity.

Table 3: Discriminant validity

	AC	C	IP	PC	RFC
Digital Learning	0.810				
Digital Literacy	0.613	0.785			
Perceived organizational support	0.615	0.771	0.859		
Social Media Usage	0.556	0.775	0.752	0.724	
Technological innovation	0.717	0.751	0.687	0.720	0.788

R^2 's value falls between 0 and 1. According to Fornell and Larcker (1981), R^2 values of 0.13 should be viewed as weak, 0.33 as moderate, and 0.67 as strong. The table displays the endogenous constructs' coefficient of determination. The table below shows that there is a strong relationship between perceived organizational support (R square value: 0.675) and technological innovation (R square value: 0.472).

Table 4: Assessment of R square

	R^2
Perceived organizational support	0.675
Technological innovation	0.472

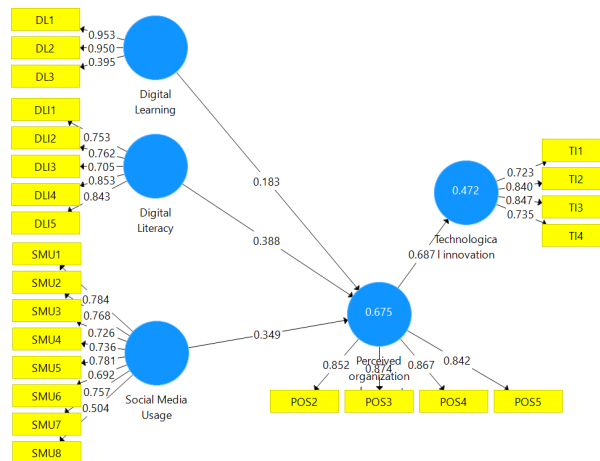


Figure 2. Assessment of algorithm

SEM

The hypothesized correlations were reflected in statistical determinations of the structural model route coefficients using the PLS-SEM bootstrapping method. The PLS-SEM analysis for the perceived organizational support as a mediator between digital social media influence on technological innovation of knowledge workers working in IT companies in India displays the connections between the paths and the testing options for hypotheses. There is a strong correlation between digital learning and the belief that the organization supports it ($\beta = 0.183$, $t = 3.554$, $p = 0.000$). Hence H1 is accepted. The results show that the relationship between digital literacy and perceived organizational support is significant ($\beta = 0.338$, $t = 4.660$, $p = 0.000$). Hence H2 is accepted. The results show that the relationship between social media usage and perceived organizational support is significant ($\beta = 0.349$, $t = 5.366$, $p = 0.000$). Hence H3 is accepted. The results show that the relationship between perceived organizational support and technological innovation is significant ($\beta = 0.687$, $t = 16.909$, $p = 0.000$). Hence H4 is accepted.

Table 5: Direct relation

	Original Sample	t Statistics	p Values	Decision
Digital Learning -> Perceived organizational support	0.183	3.554	0.000	Supported
Digital Literacy -> Perceived organizational support	0.388	4.660	0.000	Supported
Social Media Usage -> Perceived organizational support	0.349	5.366	0.000	Supported
Perceived organizational support -> Technological innovation	0.687	16.909	0.000	Supported

The relationship between digital learning and technological innovation remained significant after adding perceived organizational support as a mediating variable ($\beta = 0.126$, $t = 3.329$, $p < 0.001$), respectively. The relationship between digital literacy and technological innovation remained significant after adding perceived organizational support as a mediating variable ($\beta = 0.267$, $t = 4.333$, $p < 0.000$), respectively. The relationship between social media usage and technological innovation remained significant after adding perceived organizational support ($\beta = 0.240$, $t = 5.337$, $p < 0.000$), respectively. Mediation refers to “the parties meet with a mutually selected impartial and neutral person who assists them in negotiating their differences” (Hair et al., 2021).

Table 6: Mediating effect

	Original Sample (O)	t Statistics	p Values
Digital Learning -> Perceived organizational support -> Technological innovation	0.126	3.329	0.001
Digital Literacy -> Perceived organizational support -> Technological innovation	0.267	4.333	0.000
Social Media Usage -> Perceived organizational support -> Technological innovation	0.240	5.337	0.000

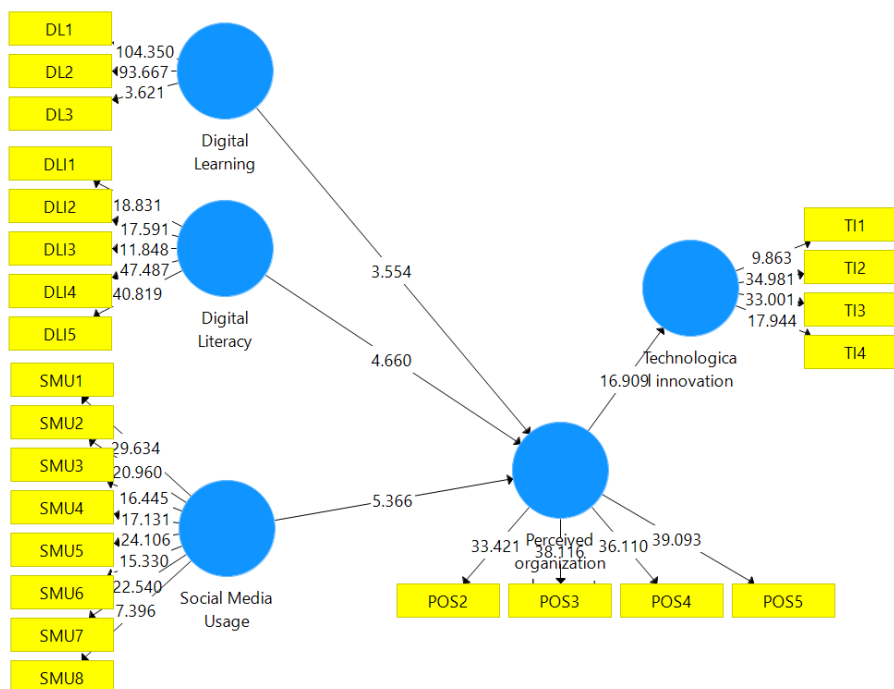


Figure 3. Assessment of bootstrapping

DISCUSSION

The role of perceived organizational support as a mediator between the influence of digital social media on technological innovation among knowledge workers at IT companies in India and the resource-based theory and the social exchange theory that underpins it. The evidence agreed with each of the hypotheses.

The results show that the relationship between digital learning and perceived organizational support is significant ($\beta = 0.183, t = 3.554, p = 0.000$). The participants lay a strong focus on how using digital learning tools at work encourages them to evaluate more on their activities, both during the planning stage and following a practice. Digital learning tools so serve as tools to enhance their practice to technological innovation and have a beneficial impact on how supportive a company is regarded to be (Sailer et al., 2021). The results show that the relationship between digital literacy and perceived organizational support is significant ($\beta = 0.338, t = 4.660, p = 0.000$). Any social media site can share business data, announce updates, or respond to customer inquiries (Delafrooz et al., 2017). The results show that the relationship between social media usage and perceived organizational support is significant ($\beta = 0.349, t = 5.366, p = 0.000$). This enhances the company's reputation by being friendly and approachable. By asking customers to contribute photos and tales of times when the insurance provider has supported them (Alakrash & Abdul Razak, 2021). The results show that the relationship between perceived organizational support and technological innovation is significant ($\beta = 0.687, t = 16.909, p = 0.000$). Perceived organizational support had the highest overall impact after accounting for all direct and indirect impacts. In other words, perceived organizational support reveals if an organization is prepared to recognize employee effort and satiate their demand for recognition and affirmation (Oubibi et al., 2022).

These results can be explained by the social exchange theory developed by Chernyak-Hai (2018), which holds that an employee takes on the characteristics of the organization in which he works, including the perception of support from management. After controlling for perceived organizational support, the correlation between digital literacy and technological innovation remained statistically significant ($\beta = 0.267, t = 4.333, p < 0.000$). The relationship between social media usage and technological innovation remained significant after adding perceived organizational support ($\beta = 0.240, t = 5.337, p < 0.000$), respectively. The procedure by which people learn how to act on/in networks and grant the programs instructional competence to enshrine their methods of learning, thinking, and responding can also be explained in terms of literacy (Pangrazio & Sefton-Green, 2021). It is one of the key tenets used to explain how people behave. Humans have a natural drive to repay favors. Similar to the desire for social exchange, this desire exists (Chen & Eyoun, 2021; Chernyak-Hai, 2018).

CONCLUSION

It was pointed out that the research accomplished nearly all of its aims and that the results benefit academics and businesses that work with IT. New components of essential digital literacy, such as building an understanding, need to be taught in instruction if people are aware of the threats to their distribution rights and are willing and able to assert them. A company can gain a lot of positive publicity by using social media to draw attention to its support for charitable causes and social service programs, like those that provide financial assistance to workers. This finding adds to our understanding of the positive effect of technological innovation beyond the basic evaluation by showing that higher levels of technical innovation produce decreasing employee benefits. Using social media to interact with brands, find direction, and gather knowledge is a pleasurable experience for users. In the realm of information technology, this easily accessible platform can be put to good use. Future studies may use different codes or categories to measure the number of IT experts employed by each company as a proxy for technological progress. To incorporate cutting-edge IT enterprise technologies such as the Internet of Things, cloud computing, and big data, which will require further study in the future.

Practical Implications

Policymakers, administrators, and decision-makers can learn much from this study. Unknown contributing effects can be reduced by exploring alternative determinants. Knowledge workers in Indian IT firms can use this research to understand better the importance of organizational support in facilitating digital learning, digital literacy, social media, and technological innovation. However, good perceived organizational support is the most important factor in enhancing differentiated handling within an organization. And when a business thrives, it spurs new forms

of technology. We recommend that business managers learn by doing on social media to make up for their lack of direct experience. Businesses today operate globally, making it more important than ever for executives to learn new skills by crossing cultural boundaries. In this way, the inventor's professional background can be an excellent resource for making connections in the business world. Moreover, managers should be aware of the significant mediating role of perceived organizational support in technological innovation in IT firms in India.

Theoretical Implications

The results of this study have far-reaching implications, both for knowledge workers in India and for administration, which may decide to increase the perceived organizational support as a mediator between the influence of digital social media on the technological innovation of knowledge workers in IT companies in India. It is also important that the study uses resource-based theory and social exchange theory. Gathering critical technological information, identifying new technological prospects, adapting to new technologies, and implementing cutting-edge innovations are all necessary for companies to expand technological innovation. Finally, businesses need to plan for the effects of industrial automation in light of the rapid changes in the digital workplace, such as novel production methods and corresponding data. Researchers expressly incorporate technological innovation principles to contribute to the ongoing discussion of how the perceived importance of organizational efforts may influence employees' perceived organizational support.

Limitations and Future Research

However, the study had significant limitations, and recommendations for moving forward were offered. How Indian IT companies' knowledge workers' attitudes toward organizational backing and technological innovation are impacted by their employees' use of social media, digital learning, and digital literacy. Using a quantitative, closed-ended questionnaire was also a limitation. Cause and effect cannot easily be determined due to the cross-sectional nature of the poll's methodology. Qualitative research and interactions with students are necessary to find out how students successfully apply concepts and what efficient procedures have been established. Future research in this area should use longitudinal or field testing to demonstrate causation between the investigated constructs. The data also has the limitation that it was gathered from knowledge workers at Indian IT companies. Future researchers may employ populations from other countries to enhance their findings. A significant drawback is that researchers can pick realistic sampling strategies. In the future, other researchers may use purposeful sampling to learn more. Despite our best efforts, we could only use a small sample in this study. Future research with a larger sample size could help verify the study's main findings.

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