

PRIMARY RESEARCH

Competencies and stakeholder engagement: Moderating the relationship between enterprise social media and organizational outcomes

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Keywords

Enterprise social media
Organizational effectiveness
Organizational learning capability
Stakeholder engagement
Employee competencies

Received: 26 September 2024**Accepted:** 23 December 2024**Published:** 11 February 2025**Abstract**

With social media being increasingly integrated into everyday life, researchers have argued that Enterprise Social Media (ESM) should be studied in the context of workplace outcomes. This study investigates the relationship between enterprise social media's influence on organizational effectiveness and organizational learning capability, including the moderating role of stakeholder engagement and employee competencies. This study employs structural equation modeling to test the model and uses a two-wave, self-reported survey design with a final sample of 320 knowledge workers, including software developers, project managers, and HR executives from various IT businesses in Africa. The findings show that every hypothesis has empirical support. More specifically, this study finds that the highest organizational returns on ESM occur only when employees have the necessary digital competencies, and when the technology is used strategically to facilitate active co-creation and dialogue with internal and external stakeholders. Theoretically, this research extends the information systems literature, by identifying these two-level moderation mechanisms in a unique and rapidly changing context through the lens of stakeholder theory. Practically, it provides organizational leaders in the African IT sector with a way to strategically align technology implementation with human capital investment and relational capability to optimize business outcomes.

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INTRODUCTION

Work increasingly moves away from prescriptive tasks to more interdependent tasks and higher order thinking; organizations have become more networked, and employees are not being physically co-located (van Zoonen et al., 2024). With the addition of the millennial workforce, also known as Gen Y or a digitally connected generation with a strong affinity for technology, the workforce demographic has changed (Alshukri et al., 2024). With this new tech-savvy workforce, a digital workplace, networked organizations, and the rapid pace of the development of information and communication technologies, organizations are required to engage and implement social media technologies at work and keep pace with the tech savvy workforce (Yin et al., 2023). Social media can take many forms including social

networking sites, blogs, microblogs, and wikis, including public and private sites. At work, social media is sometimes referred to as enterprise social media and is defined as an Internet- or intranet-based system in which users participate in sharing content (text, images, and video) to one another (Wijayanti & Sari, 2023). Therefore, understanding the effectiveness and learning capacity of ESM application in influencing organizational outcomes has become increasingly important (Sharma et al., 2023).

The widespread impact of digital communication technologies has changed the internal mechanisms of modern firms (Wang et al., 2022). Enterprise Social Media (ESM), which refers to private web-based platforms that provide employees the opportunity to connect, cooperate, and share knowledge across

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organizational boundaries, represents an important frontier in this transformation (van Zoonen et al., 2024). The adoption of ESM in emerging economies, particularly in Africa's growing information technology sector, is particularly interesting given the propensity of African firms to use technology to "leapfrog" gaps in traditional infrastructure and compete on a global basis (Alshukri et al., 2024). ESM is theoretically capable of enabling the unencumbered flow of tacit and explicit knowledge in an organization, thereby enabling faster and less siloed decision-making, and potentially create virtual communities of practice. Successful implementation of ESM may act as a catalyst for organizational learning capability and, subsequently, organizational effectiveness (Sharma et al., 2023). Despite the promise of ESM, the impact of investment in such technology varies drastically from firm to firm, indicating that the benefits are not built into the ESM technology itself, but rather conditioned by the context in which the organizations and the ESM platform are embedded (Wijayanti & Sari, 2023; Yin et al., 2023).

An organization's capacity for learning and innovation becomes a key component of its effectiveness due to constantly changing environments (Meher et al., 2024). According to Mollah et al. (2023), the absence of learning processes is largely to blame for the notable performance disparity between organizations. The managerial and organizational traits that support learning inside an organization are known as organizational learning capability, or OLC. According to Sharma et al. (2023), OLC predicts job satisfaction, new service development (Alshukri et al., 2024), and business performance. Scholars must investigate the managerial and organizational traits that support learning in organizations since they are crucial to organizational competitiveness (Gomes et al., 2022). According to Alshukri et al. (2024), social media can be used as a workplace technology by organizations to address these issues. Although existing research contends that both social and individual variables contribute to OLC, little is known about how social media can encourage OLC. In the current digital economy, a number of studies have emphasized the necessity of investigating factors that can foster OLC, particularly when utilizing technology within the particular context of networked organizations (Gomes et al., 2022; Mollah et al., 2023; Sharma et al., 2023).

Meher et al. (2024) describes organizational effectiveness as "agility in decision-making, innovativeness, ability to adapt to the changing environment, competition with rivals, maximally efficient use of resources, and retention of employee talent". Therefore, the primary goal of the workplace is to create an effective organization. However organizational effectiveness evolves over time (Bandura, 2023; Mollah et al., 2023; Oladeinde et al., 2023). Furthermore, given that many

organizations face cultural barriers, organizational success is important for companies in the global economy (Sharma et al., 2023). Employee competencies pertain to the internal readiness (Kowal et al., 2022). Staff must have more than just access to ESM; they need actual digital literacy, a collaborative mindset, and know-how about knowledge transfer to be able to use ESM effectively for complex tasks and in turn maximize the positive impact for organizational learning and efficiency (Rajest, Regin, et al., 2022). Likewise, Stakeholder engagement refers to external relational capital, where stakeholder participation, including customers, suppliers, and other partners, provides a more relevant and outcomes-led approach to ESM knowledge flow (Oladeinde et al., 2023).

The growing reliance on digital infrastructure has made IT companies a vital component of modern organizations (Kim & Jung, 2022). IT audits, which were once primarily concerned with financial matters, have grown to include a thorough assessment of technological systems, data governance, and compliance adherence (Blanka et al., 2022). Finding weaknesses and possible hazards as well as guaranteeing the effectiveness, security, and integrity of an organization's IT environment are what make the IT sector important. The complexity of IT infrastructures increases with technological advancements, making sound auditing procedures even more crucial (Mollah et al., 2023). Successful IT audits help firms understand how well their information systems are working, which helps them match technology to business goals and legal needs (Blanka et al., 2022).

The existing body of literature has consistently established a positive direct correlation between ESM usage and forms of organizational effectiveness (Alshukri et al., 2024; Meher et al., 2024; Sharma et al., 2023). This study focuses on employee capabilities, defined as the skills, knowledge, and attitudes associated with effectively using ESM for work collaborative efforts and stakeholder engagement, which refers to the active involvement of key external stakeholders, such as clients and partners, within the firm's digital environment, as the relevant moderators. Applying this model to IT firms in Africa a context characterized by different challenges surrounding digital infrastructure and a high reliance on rapid systems change provides much-needed geographical and functional specificity that is generally lacking in existing literature, which is heavily Western-focused. The urgency and importance of the current investigation were emphasized in the introduction. The next section presents the study's theoretical development and literature review, followed by the research methodology, results, and discussion. The paper concludes with implications, limitations, and recommendations for future research.

THEORETICAL REVIEW

Stakeholder Theory

Stakeholder theory is a strategic management approach that combines ethical leverage with a fundamental rejection of shareholder primacy (Mahajan et al., 2023). It contends that long-term success and eventual prosperity depend on generating value for all groups that can influence or are influenced by the firm's business proposition. Its most important point is that a firm exists as a site of relationships, and the job of managers is to identify the interests of different parties and integrate them, rather than focusing on maximizing return for owners. The stakeholders include employees, managers, and owners; customers; suppliers; the local community; and the local regulatory authorities (Parmar et al., 2010). This entire concept reflects an understanding of the interconnected web that ties together these various entities to the company and emphasizes that companies have a broader responsibility to society and the environment, apart from maximizing shareholder value. At a time when some stakeholders prioritize sustainability and ethical business behavior, a more comprehensive take on social sector engagement becomes more important. Therefore, stakeholder engagement serves as a useful tool to orchestrate the relationship between overall learning capacity of the firm, and use of enterprise social media (Freeman, 2023). In the digital transformation space, ESM acts as an important infrastructure for managing these types of relationships. By enabling direct, transparent, and continuous communication, the platform allows the organization to better understand, meet, and express the interests of its stakeholders (Alshukri et al., 2024). Most importantly, the theory argues that value does not emerge on its own but through a network of relationships. Capabilities are defined as an organization's ability to manage its internal stakeholders, i.e., the employees (Oladeinde et al., 2023). Employees with the right digital, collaborative, and communication skills are required to create genuine organizational learning capability from ESM's technological potential (van Zoonen et al., 2024). Without the necessary capabilities, ESM remains a passive depot, rather than an active construct for learning. Simultaneously, stakeholder engagement involves the firm's management of external stakeholders (e.g., customers and partners) (Freeman, 2023). Active engagement through ESM has the unique benefit of bringing important market intelligence and co-creation opportunities directly into the firm's learning life-cycle, so OLC is reconfigured alongside external capabilities and demand to ensure that the resulting organizational effectiveness is grounded in market need and continuously sustainable (Mitchell et al., 2022). The stakeholder theory situates the success of ESM, not as a technical outcome but

as a relational outcome because it depends upon successfully developing both internal capability and external relationship (Nonet et al., 2022).

Hypothesis Development

Enterprise Social Media Use

Enterprise social media has a significant influence on organizational effectiveness as well (van Zoonen et al., 2024). It can shape an organization's beliefs and habits as well as the context in which it operates. In terms of an organization's knowledge management and learning initiative, it focuses on the enduring homological capability, knowledge, and execution of plans and tasks within time constraints by employees (Alshukri et al., 2024). Human knowledge is maximized so that it can be executed in an effective or efficient manner across an organization, resulting in organizational effectiveness. Organizational effectiveness is an expansive concept with various meanings (Sharma et al., 2023). Management provides assurance that all organizational decisions are aligned. Technology increases efficiency by enabling internal communication between employees. The complex business context contributes to OE, similarly to the organizational learning (Yin et al., 2023). Businesses should be given time to reflect on their objectives and the resources that they will need to achieve them. van Zoonen et al. (2024) establish an organizational approach to guide the organization's effectiveness to achieve its objectives. The organization must have people who are ready to commit their efforts to achieve its objectives and are willing to accept challenges (Rajest, Regim, et al., 2022). OE, which tends to be defined through the dimensions of operational efficiency, social performance, and adaptability, is enhanced mainly because ESM takes away traditional barriers, enhancing internal flows of knowledge. Wang et al. (2022), empirical research highlights that using ESM tools facilitates access to expert knowledge, allowing employees to resolve operational problems more quickly while at the same time reducing cycle time. In addition, ESM tools have been shown to indirectly improve decision-making effectiveness at times of environmental disruption, a dynamic constant in many markets, including the African IT sector. Based on the previous research, enhancing both operational and social performance requires coordinated decision-making and rapid resources mobilization, which can be supported by ESM (Alshukri et al., 2024; Blanka et al., 2022). Additional studies have contributed to understanding how ESM usage increases employees' organizational commitment, work exuberance, and thriving at work (Ma et al., 2022). By providing opportunities to use ESM effectively for work and social tasks, ESM increases employees' sense of control and belongingness, leading to higher engage-

ment and reduced intention to turnover. Some research has also used stakeholder theory to emphasize building important network ties and trust among coworkers is possible to create the relational aspect needed for high performing teams and successful implementation of cross-functional projects (Meher et al., 2024; Sharma et al., 2023; Wijayanti & Sari, 2023). Based on the previous discussion, the hypothesis can be articulated as follows:

H1: Enterprise social media use has direct and significant impact on organizational effectiveness.

OLC is viewed as a set of management and organizational characteristics that facilitate the process of learning in an organization (Meher et al., 2024). Further, OL theorists who examine OL with a technology lens say that information processing (Mollah et al., 2023), or technology or information systems are the means of learning. Thus, social media tools are likely facilitate OLC enablers such as engagement, dialogue, participation, risk-taking, and experimentation in the current digital era (Sharma et al., 2023). One of the primary challenges to developing OLC is knowing where organizational knowledge resides, and ensuring that it is effectively shared among members (Meher et al., 2024; Yin et al., 2023). Since most tacit knowledge is retained by people and their social networks, ESM can be one tool that supports OL (Sharma et al., 2023). There are two facets of ESM (Enterprise Social Media) use: Socio-informational (where ESM is used by employees to connect to other people, to seek information, and ultimately to communicate with people who have like-interests) and entertainment-recreational (where it is primarily used for fun or entertainment, while engaging in non-work non-productive activity). Based on stakeholder theory of communication visibility, ESM (i.e., communication visibility) is likely to enhance OLC (organizational learning capability) in three distinct ways (Wang et al., 2022). First, ESM enhances the meta-knowledge about every member of the network, by providing communication visibility, which makes the communication between two or more players in the network visible to other actors of the same network. van Zoonen et al. (2024) shows how ESM enhances organizational knowledge transfer through the meta-knowledge of who knows what and who it is known by. Second, there are blogs, communities of practice, and microblogging in ESM that provide opportunity for idea exchange along with fostering communication and engagement within organizational boundaries (Meher et al., 2024). Each of the hedonistic and socio-informational uses of ESM are related in principle to the idea of communication visibility (Rajest, Regin, et al., 2022). These two uses of ESM could make equal contribution to a desire to share knowledge, even if it isn't about strictly work-related knowledge. Communication content will

not always be business-centric information employees are seeking or exchanging, but could consist of images, blogs, and live content that spurs dialogue among network members regarding topics unrelated to work. The goal to communicate with others for pleasure or leisure may also be the motivational factor of the hedonic purpose of communication via ESM (van Zoonen et al., 2024; Wang et al., 2022). Research findings also support the notion that hedonistic ESM use has a positive outcome on behavior associated with organizational learning (Alshukri et al., 2024). Thus, in comparison to other media technologies, ESM is viewed as a psychologically safe environment for information exchange, as its use is generally limited to organizational members and boundaries, thus boosting risk-taking behaviors, open communication, and experimentation (Sharma et al., 2023; Wang et al., 2022; Yin et al., 2023). Based on the above discussion, the following hypothesis is proposed:

H2: Enterprise social media use has direct and significant impact on organizational learning capability.

Moderating Role of Employee Competencies

According to Meher et al. (2024), competency is defined as "an underlying characteristic of an individual that is causally related to criterion-referenced effective and/or superior performance in a job or situation." Competency is a distinguishable, observable, measurable, and comparatively stable (enduring) characteristic of a person, group or organization that contributes to and statistically predicts the likelihood of achieving a measured level of performance (Hajiali et al., 2022). Employee competency reflects the interaction of knowledge, skill, performance ability, and a willingness to work. The greater an employee's competence, the greater their confidence at work. At the same time, educational competence indicates the effectiveness of the learning (Kowal et al., 2022). Competent employees can achieve a task in a specified period of time. Teams with more competent individuals will perform noticeably (better) than teams without competent individuals. Ultimately, team efficacy is of utmost importance to organizational survival (Wijayanti & Sari, 2023). The use of ESM can enhance task and creative performance (Kim & Jung, 2022), socialization in workplace contexts (Blanka et al., 2022), network construction and boundary spanning Kowal et al. (2022), and both team and organization effectiveness (Naveed et al., 2022; Oladeinde et al., 2023). Wang et al. (2022) noted that research on social media use at work has focused on one, or two dimensions of ESM use. In addition, the traditional use of enterprise social networks within organizational context have also received some attention and evidence that it can leverage knowledge management. ESM is a complex and voluntary IT tool that requires user com-

petence to translate potential technological affordance into realized organizational benefits (Sharma et al., 2023). Competence is often operationalized into IT competency or digital fluency, and research consistently finds that high-level IT competency leads to a stronger positive association between ESM utilization and important subjective indicators of organizational effectiveness, such as employee agility, knowledge transfer, and performance (Kowal et al., 2022; Wijayanti & Sari, 2023). Furthermore, competent employees will generally be in a better position to take advantage of ESM's features of communication visibility and association for work-related strategic purposes, like accessing expert knowledge quickly or achieving interdependence in effective ways across silos in order to gain the greatest potential contribution to attaining organizational goals (Rajest, Regin, et al., 2022; van Zoonen et al., 2024). Employees with underdeveloped digital skills may have difficulty managing the vast amount of information presented by these platforms, which may lead to information overload and frustration and lowered productivity rather than efficiency. Researchers report that only highly capable employees are likely to use ESM for its intended organizational purpose, while employees with lesser skills may either misuse ESM for personal use or may be less productive due to impulse control issues associated with social media, ultimately lowering an organization's overall efficiency (Wijayanti & Sari, 2023; Yin et al., 2023).

However, research suggests that providing the platform is not enough as the employee's digital fluency determines the platform's effectiveness as a learning tool (Gomes et al., 2022). Employees with higher digital fluency are better able to identify relevant information, evaluate sources of expertise, and generate quality informal learning opportunities through ESM (Sharma et al., 2023). Alshukri et al. (2024) allows them to utilize the high visibility and persistence affordances of ESM as learning opportunities and increases the positive relationship between ESM use and OLC. In turn, lower levels of fluency inevitably lead to information overload and difficulty navigating the social networking aspects of ESM, thereby inhibiting the formal and informal learning processes upon which the development of OLC relies on (Meher et al., 2024; van Zoonen et al., 2024). Accordingly, employee digital fluency advances the process of translating ESM usage into observable gains OLC. This then leads to the following possibilities:

H3: Employee competencies has moderating relationship on enterprise social media and organizational effectiveness.

H4: Employee competencies has moderating relationship on enterprise social media and organizational learning capability.

Moderating Role of Stakeholder Engagement

Stakeholders' engagement especially in the form of key external stakeholder groups (for example, customers, regulators and community stakeholders), has fundamentally changed how a firm defines and assesses its organizational effectiveness (Oladeinde et al., 2023). Social media, and particularly, ESM (that is, ESM extended to external social media channels, which is often termed "ESM adoption") is an important tool for real-time engagement (Mitchell et al., 2022). Research highlights that the value of ESM is greatest when an organization translates external stakeholder input obtained through social media into internal strategic change (Hollebeek et al., 2022). The literature indicates that high levels of stakeholder engagement can lead to early risk detection, a better alignment of the firm's strategies with the market, and a faster pace in responding to any crisis situations - all of which are important dimensions of OE (Nonet et al., 2022). While ESM improves internal communication by design, the anticipated operational efficiencies and knowledge flow may not yield new, increased market or social performance metrics when what those metrics demonstrate to the outside world are not aligned with those metrics. Researchers point out that organizations have a higher level of accountability and legitimacy when they use social media to manage stakeholder perceptions (e.g., CSR disclosures, crises communications, etc.) and that accountability and legitimacy can indirectly improve their performance (Naveed et al., 2022; Rajest, Regin, et al., 2022). If the ESM use remains entirely internal or the organization engages in one-way communication (i.e., broadcasting to the outside world, but not reciprocating or listening), the organization will not have taken advantage of using ESM to collect external intelligence. Organizations missing opportunities for external intelligence when ESM is used only internally will create blind spots that are less likely to lead to efficient decision-making (Bandura, 2023).

OLC stipulates that the organization must effectively acquire, assimilate, and apply both internal and external knowledge (Sharma et al., 2023). Existing literature confirms that, as measured through dimensions such as "interaction with the external environment," the fundamental aspects of OLC rely significantly on feedback (Meher et al., 2024). ESM can be considered a boundary-spanning technology, which permits real-time engagement with key stakeholders such as customers and the broader community (Gomes et al., 2022). This two-way communication allows the organization to track market sentiment, identify trends, and receive immediate and transparent feedback that may not be available through traditional feedback mechanisms (Mollah et al., 2023). Thus, high stakeholder engagement is also a mechanism for quality control and guidance

for the acquired knowledge: that the knowledge the organization acquiring and sharing internally through the ESM is relevant, arrived at in real-time, timely, and under the same set of external expectations to activate and utilize ESM as a knowledge adaptation and learning process (Sharma et al., 2023). Research related to the trade-off between internal and external collaboration for innovation indicates that relying solely on internal organizational learning processes is insufficient for maximizing performance, as effective innovation also requires interconnectivity to the external collaboration process (Alshukri et al., 2024; Yin et al., 2023). Thus, if the use of ESM is limited to internal knowledge sharing, with little efforts to integrate the input of, say, external stakeholders' observations, such OLC experience

may produce a robust operation in terms of efficiency, but may reduce organizational resilience, innovation capacity and adaptability to the flows of the market (Oladeinde et al., 2023; Rajest, Regin, et al., 2022; Wijayanti & Sari, 2023). This then leads us to the following possibilities:

H5: Stakeholder engagement has moderating relationship on enterprise social media and organizational effectiveness.

H6: Stakeholder engagement has moderating relationship on enterprise social media and organizational learning capability. The following research model has been developed for this study in light of the aforementioned rationale and hypothesis. For the proposed model, see Figure 1.

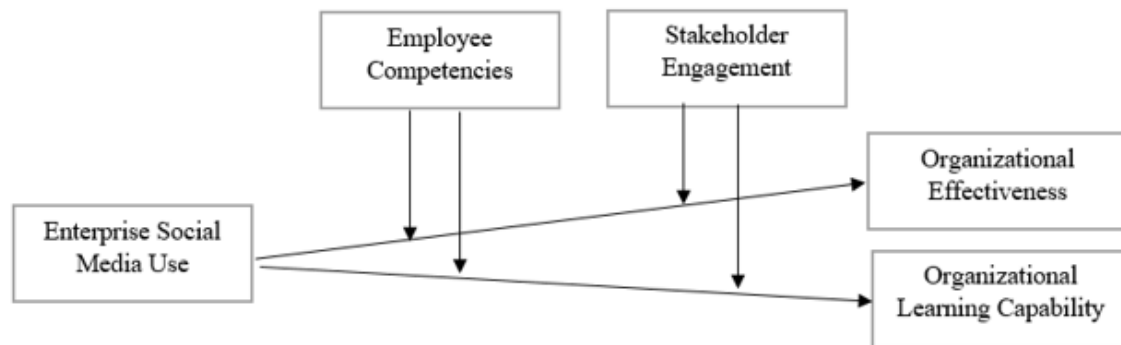


FIGURE 1. Conceptual model

METHODS

Sample and Procedure For this research, data was exclusively gathered from employees working in Information Technology (IT) firms in Africa, specifically targeted organizations that had intentionally implemented organization-facilitated Enterprise Social Media (ESM) technologies in order to promote internal communications and collaboration. Because of the exploratory scope of the inquiry, and limited access to organizational contexts, a convenience sampling approach was employed to collect data from the targeted population. Efforts were made to engage a range of knowledge workers who play important roles in organizational learning and efficiency including Human Resource (HR) executives, project managers, software developers and team leaders. Overall, approximately 1000 online questionnaires were administered to several IT firms through direct engagement by the researcher. From Survey 1, 400 completed questionnaires were received, resulting in an aggregate response rate of 40%. For survey 2, only contacted the 400 participants from Survey 1 were contacted. Survey 2 produced a total of 320 respondents, resulting in a follow-up response rate of 80%.

Data Collection

In this study, a self-report, multi-wave survey methodology was used to collect data. To prevent Common Method Bias (CMB) a common occurrence with self-report surveys two surveys were administered 15 days apart. The first survey instrument (Survey 1) was used to collect data on the independent variables of the study: Enterprise sSocial Media (ESM), employee competencies, and stakeholder engagement. The second survey instrument (survey 2) was administered 15 days later and collected responses on the primary dependent variables: Organizational effectiveness and organizational learning capability. The survey instruments used to gather data were coded to ensure that the responses could be matched to the same individual across survey 1 and survey 2, and the final matched had combined responses from a sample of $N=320$. To mitigate concerns about clarity and consistency, the survey materials provided a clear definition of ESM as "a facility of social software provided by organizations to deliver virtual environments that may include a blog, wiki, social networking, microblogging, tagging, podcasts, media sharing, etc."

Demographics

Of the 320 final participants, 242 had some form of supervisory experience (75.6%). This considerable percentage was used to indicate position level because each of the organizations in the convenience sample focused on a more diversified methodology. The ages of the respondents ranged from 22 years to 44 years ($M = 30.48$ and $SD = 4.209$). The samples gender breakdown was 47 females (14.69%) and then 237 males. The sample was made up of knowledge workers tied directly to the Information Technology (IT) sectors working in Africa. Participants, who were recruited using convenience sampling, were classified into levels based on tenure: Junior (1–5 years), middle (6–10 years), and senior (more than ten years). The nature of work varied significantly, from junior-level roles (e.g., software engineers, business analyst, sales analyst), middle-level roles (e.g., technical leads, project managers, senior sales specialists), and senior-level roles (e.g., heads of technology, HR executive, and app architects). This heterogeneity of employment roles, including software development and executive management was purposeful and assisted in capturing a comprehensive understanding of ESM use across different organizational functions in the African IT sector (Yin et al., 2023).

Measures

The assessment tools were used to measure the validity and reliability of items, as shown in Table 1. Each item of the scales was evaluated on a five-point response scale from 1 (strongly disagree) to 5 (strongly agree). Enterprise social media use was measured using a seven-item scale developed by Sharma et al. (2023). Cronbach's alpha for the scale was 0.849. Employee competencies were measured using a seven-item scale developed by Meher et al. (2024). Cronbach's alpha for the scale was 0.867. The stakeholder engagement scale was measured using an eight-item scale developed by Alshukri et al. (2024). Cronbach's alpha for the scale was 0.888. A five-item scale was used to measure the organizational effectiveness, adopted from Meher et al. (2024). Cronbach's alpha for the scale was 0.892. A nine-item scale was used to measure the organizational learning capability (Sharma et al., 2023). Cronbach's alpha for the scale was 0.926.

RESULTS AND ANALYSIS

The results are shown in the order that they were acquired. This study used the SMARTPLS software package to implement the Partial Least Square-Structural Equation Modelling (PLS-SEM)

methodology. These methods have been proposed by several researchers for the evaluation of the path analysis. PLS-SEM approaches have been proposed by Hair et al. (2024) for usage in a variety of management study areas.

Evaluation of Measurement Model: Validity, Reliability, AVE

First, a complete measurement model was tested. The relevant parameters were loaded with items pertaining to stakeholder engagement, staff capabilities, enterprise social media, organizational effectiveness, and organizational learning capability. This study used reliability, convergent validity, and discriminant validity tests to assess the outer model that reflects the CFA results. Internal reliability was examined using Cronbach's alpha values. While the value of CR exceeded the recommended threshold of 0.70, Cronbach's alpha also exceeded the 0.70 threshold for all constructs (Hair et al., 2024).

This establishes the trustworthiness of the build. Convergent validity was also confirmed by looking at the Average Variance Explained (AVE) value. The AVE had reached the necessary threshold value of 0.50 for each abstracted construction (Hair et al., 2024). The AVE values are also high, from 0.533 (ESMU) to 0.701 (OE), would confirm that more than 50% of the variance for the items can be attributed to the given construct. In addition, Organizational Effectiveness, with the largest AVE value of 0.701 suggests even stronger convergence among items than the others. The factor loadings for each item within its construct are consistently high; between a low of 0.705 (ESMU1) to a high of 0.888 (OE3).

Lastly, the Variance Inflation Factor (VIF) values were assessed, to examine possible multicollinearity among the independent variables (Hair et al., 2024). The VIF values for all items across all constructs were well under a conservative value of 5 although ideally they should be below 3.3). The individual VIF scores ranged from 1.501 to 3.754. Because the VIF values were low in each case, this confirms that the regression results do not suffer from a significant multicollinearity problem.

The discriminant validity assessment was also applied in this investigation. Examining the relationship between the items allowed for the investigation of discriminant validity; if a latent variable is bigger than the inter-item correlation values, the diagonal AVEs under the root of the build should be higher (Fornell & Larcker, 1981). The discriminant validity test results are displayed in Table 2. Alongside this study, a recent approach to assessing discriminant validity was also employed.

TABLE 1. Demographic profile

Variables	Items	Loadings	α	CR	AVE	VIF
Enterprise Social Media Use	ESMU1	0.705	0.849	0.887	0.533	1.648
	ESMU2	0.789				2.767
	ESMU3	0.843				3.239
	ESMU4	0.76				1.927
	ESMU5	0.806				2.138
	ESMU6	0.777				1.501
	ESMU7	0.781				1.506
Employee Competencies	EC1	0.794	0.867	0.898	0.558	1.741
	EC2	0.794				2.152
	EC3	0.771				2.474
	EC4	0.804				2.393
	EC5	0.765				1.963
	EC6	0.764				3.095
	EC7	0.72				2.311
Stakeholder Engagement	SE1	0.789	0.888	0.911	0.563	2.556
	SE2	0.84				2.686
	SE3	0.826				2.853
	SE4	0.741				2.206
	SE5	0.791				1.794
	SE6	0.762				2.443
	SE7	0.741				1.712
	SE8	0.793				1.971
Organizational Effectiveness	OE1	0.763	0.892	0.921	0.701	1.998
	OE2	0.864				3.754
	OE3	0.888				3.669
	OE4	0.825				3.583
	OE5	0.841				3.609
Organizational Learning Capability	OLC1	0.812	0.926	0.938	0.629	2.966
	OLC2	0.789				2.552
	OLC3	0.743				2.009
	OLC4	0.782				2.379
	OLC5	0.786				2.67
	OLC6	0.81				2.882
	OLC7	0.831				2.883
	OLC8	0.719				1.866
	OLC9	0.857				3.435

TABLE 2. Discriminant validity

	1	2	3	4	5
Employee Competencies	0.747				
Enterprise Social Media Use	0.732	0.768			
Organizational Effectiveness	0.659	0.701	0.837		
Organizational Learning Capability	0.617	0.661	0.782	0.793	
Stakeholder Engagement	0.717	0.730	0.511	0.621	0.751

Structural Model Evaluation

The associations between the constructs were assessed using Structural Equation Modelling (SEM) analysis (Hair et al., 2024). The next step is to discuss the significance of the coefficient paths, and whether they are statistically significant and supported. Given the Standardized Root Mean Square Residual (SRMR) threshold of 0.08, and as one of the key model fit according to this criterion (Hair et al., 2024). This analysis revealed an SRMR value of 0.080, which is equal the threshold and indicates a significant proportion of capacity to explain the

model. The R-squared values, which reflects the percentage of variance in dependent variables explained by the independent variables (enterprise social media use, employee competencies, and stakeholder engagement) also shows a strong effect. The model explains 67.7% of the variance in organizational effectiveness ($R^2 = 0.677$) which indicates a substantial level of explanatory power. Similarly, the independent variables explain 55.5% of the variance in organizational learning capability ($R^2 = 0.555$) which also represents a moderate level of explanatory power.

TABLE 3. R-square and model fit values

	R Square	SRMR
Organizational Effectiveness	0.677	0.080
Organizational Learning Capability	0.555	

Hypothesis Testing: Direct and In-direct

This assessment is based upon a specification of the hypothesis and a moderation analysis. The moderation analysis was conducted using bootstrapping with 5,000 bootstraps samples to generate the required p -values for the study (Hair et al., 2024). The Variance Inflation Factor (VIF) was below three, and predictors were included in structural (inner) model. This is evidence of a common method bias assessment and procedure bias test and indicates that biases are not a major concern in the model (Hair et al., 2024). Therefore, in addition to the moderation analysis, this study also examines the effects of independent variables on the dependent variable. Table 4 shows that en-

terprise social media use has significant and positive impact on organizational effectiveness ($p = 0.035$). Enterprise social media use has significant and negative impact on organizational learning capability ($p = 0.025$). Employee competencies has moderating impact between enterprise social media and organizational effectiveness ($p = 0.017$). Employee competencies has moderating impact between enterprise social media and organizational learning capability ($p = 0.011$). Stakeholder engagement has moderating impact between enterprise social media and organizational effectiveness ($p = 0.000$). Stakeholder engagement has moderating impact between enterprise social media and organizational learning capability ($p = 0.000$).

TABLE 4. Direct and indirect effects

	Paths	β	T Values	p Values
H1	Enterprise Social Media Use -> Organizational Effectiveness	0.145	2.114	0.035
H2	Enterprise Social Media Use -> Organizational Learning Capability	-0.215	2.253	0.025
H3	Employee Competencies * Enterprise Social Media Use -> Organizational Effectiveness	0.140	2.397	0.017
H4	Employee Competencies * Enterprise Social Media Use -> Organizational Learning Capability	-0.287	2.550	0.011
H5	Stakeholder Engagement * Enterprise Social Media Use -> Organizational Effectiveness	0.695	10.013	0.000
H6	Stakeholder Engagement * Enterprise Social Media Use -> Organizational Learning Capability	-0.450	5.162	0.000

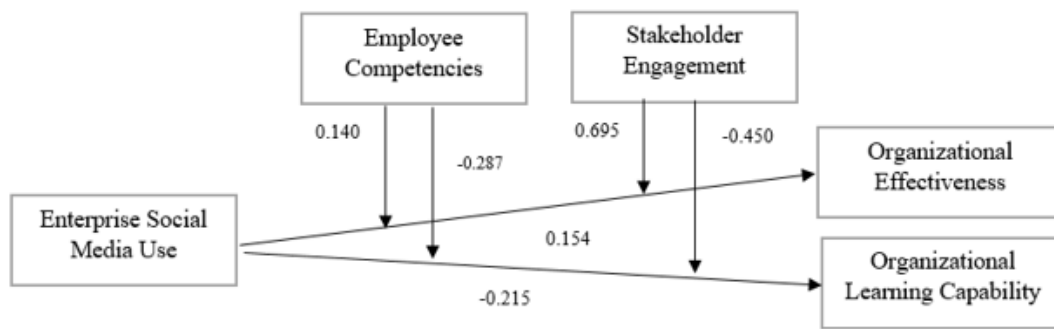


FIGURE 2. Structural model

DISCUSSION

This study aims to examine how enterprise social media impacts organizational effectiveness and organizational learning capability. It also investigates the moderating effects of employee competencies and stakeholder engagement on the relationship between enterprise social media organizational effectiveness and organizational learning capability among employees working in Information Technology (IT) firms in Africa. The sample data supports the proposed hypothetical model's. The results show that all hypothesis are empirically supported.

According to Sharma et al. (2023), employees use ESM for both socio-information purposes, such as fostering social connections, accessing information, and interacting with others who share similar interests, and entertainment recreation purposes, including entertainment, engaging others socially for non-task-related purposes. ESM was strongly linked to organizational effectiveness and learning capability because it encouraged communication among teams and departments, was participatory in terms of decision-making, and allowed for idea sharing. ESM use was found to positively influence employees at work. Employees perceive ESM as an informal form of communication whether for informal conversation at work, or work-related communications with coworkers, as was evident in the findings. It is one way that employees, at all levels, convene to share their ideas, request help, problem solve, and learn from one another. All of this takes place informally; that is, without formal structure or instruction. Processes and managerial attributes that promote a learning environment such as idea sharing, communication with the outside world, discussion, dialogue between members, and processes for participatory decision making are believed to enhance organizational effectiveness and learning capability (Wang et al., 2022). All of these competencies can only be developed when organizations have platforms, the opportunity, and support from top management for conversation. Employees can develop these skills through the active use of these platforms for brainstorming and problem

solving. In conclusion, creative behavior was conceptualized as the link between social media platforms intended to improve an organization's effectiveness and learning capability.

An interesting finding of our study was the moderating effect of employee competencies on the relationship between ESM, OLC and organizational effectiveness. This indicates that employees with higher competencies tends to learn more because they are embedded in broader social networks to share ideas and receive advice (Ma et al., 2022; Rajest, Regin, et al., 2022). The employee competencies also further enable their informal learning opportunities because more individuals will trust them with suggestions and advice due to their higher employee competencies. Employee competencies can be considered not only as the size of one's social networks, but also the degree of relational confidence and ease within those networks. Consequently, workers with more employee competencies develop stronger relational bonds and connection within their networks. When a worker engages with ESM, they develop such virtual bond. Based on the findings of the study, it is evident that employees with greater employee competencies will also have greater influence on organizational effectiveness and OLC. This study advances and extends the existing research models of exploring the relationship between organizational effectiveness and ESM with OLC.

This finding is consistent with contemporary theories of information systems, which claim that technology adoption alone is not adequate, but the value lies in behavioral change and relational processes and interactions (Alshukri et al., 2024; van Zoonen et al., 2024). In the African context of IT, where knowledge creation often takes place in myriad forms and in disparate geographical locations, ESMU is, at a minimum, providing the platform for instantaneous communication. However, the value of ESMU is not merely in its support of communication, but in providing opportunities for engagement and richer diversity of internal and external stakeholder experience available through meaningful dialogue and feedback loops, approaches

to new thinking and applications for co-creation. This mediating role suggests that ESM's impact is indirect and improving organizational performance through increasing the relational quality of knowledge, often through closing the technological gaps between communities. Previous research in knowledge management has regularly related increased cross-functional interaction and collaboration with better learning success (Ma et al., 2022). This contribution is relevant to African IT companies using global and local partnerships, reinforcing the connection between a stakeholder-centric strategy and internal technological adoption to achieve holistic organizational success.

Implications and Future Directions

Theoretical Implications

The current study makes important contributions to the literature concerning Enterprise Social Media (ESM) and organizational theory in general, most importantly, advancing the discourse of the Africa IT context. First, the empirically demonstrated relationships between ESM use and critical distal outcomes, i.e., organizational effectiveness and learning capability, extends the previous reliance on simple adoption studies and provides support for ESM as workplace technology. Second and crucial, the study provides theoretical richness in introducing and testing the moderating role of employee competencies and stakeholder engagement; prior studies predominantly limited the investigation of ESM to either direct effects or socially-focused internal factors (e.g., social capital). In contrast, this study specifies the boundary conditions whereby the relationship between ESM Use and outcomes becomes strengthened or weakened in the context of established employee competencies and stakeholder engagement. Wang et al. (2022), assert that the findings indicate that the positive effect of ESM on OE and OLC is neither a deterministic relationship nor do all workplaces benefit; the findings suggest that existing organizational and human capital factors moderate the effect. As such, this research also adds to Information Systems theory by demonstrating that the value derived from technology is realized through users, their embedded capacity and the external interaction of stakeholders.

Practical Implications

This study provides important and actionable insights for HR executives, project managers, and leaders of organizations in the African IT sector looking to optimize the return on investment of ESM platforms. The key finding is that organizations should not depend solely on the deployment of technology; rather, they should consider strategic management of the moderating factors. Practitioners should not view employee competencies

as an addition to the implementation of ESM but rather precondition for effective ESM use. Organizations should invest in training that moves beyond ESM platform use, toward developing digital collaboration skills, critical thinking in information processing, and online communication skills. For example, organizations might consider creating digital literacy certifications or developing "digital collaboration scores" as part of the employee performance measurement, to ensure employees will be able to convert ESM platform use into increased Organizational Effectiveness (OE) and Organizational Learning Capability (OLC). It will be important for leaders to establish purposeful policies and specific ESM channels for quick feedback, co-designing, and problem-solving with relevant stakeholders. This proactive strategy shifts ESM from a basic internal communications tool to a strategic opportunity for relationship management strategy. By proactively elevating employee competencies and creating strong engagement with stakeholders, IT firms in Africa can substantially increase the positive benefits of their ESM platforms in ways that clearly translate usage of the platforms into enhanced organizational effectiveness and a highly skilled organizational learning environment.

Limitations and Future Research

Despite the important benefits this study provides for both theory and practice, it is necessary to note certain limitations. First, there is the limitation of self-reported surveys and a two-wave survey design. Although we gathered data at two points in time with a time delay between the independent and dependent variables (and took statistical safeguards to control for Common Method Bias (CMB), it cannot be claimed that measurement bias was fully eliminated or that strict causality between ESM usage and organizational outcomes can be established. Second, the nature of convenience sampling in the private sector IT context in Africa and the large majority of our sample being comprised of respondents with supervisory experience potentially raises questions regarding the generalizability of our results to non-supervisors or public sector organizations. As a result, the findings are most applicable to knowledge-intensive, private service firms. Moreover, researchers are encouraged to adopt a multisource approach by empirically combining self-report measures with objective data (for example, measures of operational performance, innovation rates that are documented, or organizational level data that captures the frequency of ESM use) to address the limitations associated with using data from one source. From a theoretical perspective, the model examined employee competencies and stakeholder engagement as two vital moderators, and subsequent studies can examine other potential boundary conditions, such as the role of top manage-

ment support, specific types of digital leadership styles, or the impact of organizational justice on the ESM-OE/OLC relation. Lastly, future comparative studies should explore the ESM usage

and its impact across different contexts (e.g., the manufacturing industry or the public sector) to test the extent to which these findings are generalizable across diverse organizational settings.

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