

## DIGITAL LEADERSHIP AND CREATIVE PERFORMANCE IN TOURISM AND HOTEL ENTERPRISES: LEVERAGING STRATEGIC AGILITY AND ORGANIZATIONAL LEARNING CULTURE

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**Abstract:** The aim of this study is to explore the effect of digital leadership (DL) on creative performance (CP) by investigating the mediating roles of strategic agility (SA) and organizational learning culture (OLC) in tourism and hospitality industry. The study analyzed 320 responses from middle-level management at five-star hotels and category-A travel agencies in Egypt using the PLS-SEM technique and WarpPLS statistical software 7.0. Findings reveal that digital leadership positively affects creative performance, strategic agility, and organizational learning culture. In addition, CP is positively affected by SA and OLC. Moreover, findings confirm the mediation effects of strategic agility and organizational learning culture in the DL→CP relationship. The study provides practical insights for tourism and hospitality enterprises using Dynamic Capabilities Theory to enhance performance and agility in the digital age.

**Keywords:** Digital Leadership, Creative Performance, Strategic Agility, Organizational Learning Culture, Tourism and Hotel Industry

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### INTRODUCTION

In today's swiftly changing business environment, digital leadership stands out as highly significant. With organizations adopting digitalization more and more to maintain competitiveness, the role of effective digital leadership becomes paramount in promoting innovation, fostering agility, and navigating intricate technological advancements. Digital leaders are instrumental in conceiving and executing digital transformation strategies, harnessing emerging technologies, and utilizing data-driven insights to improve operational efficiency, enhance customer experiences, and drive overall business performance (Ismail et al., 2023). Furthermore, in an environment where customer preferences and industry trends are continually shifting, the significance of digital leadership becomes even more pronounced. It becomes crucial for organizations to adapt to these changing market dynamics, explore novel business models, and provide innovative solutions that align with evolving customer demands (Libert et al., 2016). Therefore, digital leadership not only fosters organizational resilience and expansion but also ensures that businesses stay pertinent and competitive in an ever more digitally-driven environment (Chen et al., 2024). By adopting digital technologies, promoting innovation, and cultivating a culture of experimentation, digital leaders establish a milieu that encourages and fosters creative thinking and problem-solving. They offer the requisite resources and assistance to empower employees to explore fresh ideas, embrace risks, and collaborate across departments. Digital leadership also utilizes technology to improve communication, facilitate knowledge sharing, and spur idea generation, thereby instilling a sense of ownership and involvement among employees (Borowska, 2019; Benitez et al., 2022).

Proficient digital leaders exhibit the foresight and flexibility required to navigate the dynamic and swiftly evolving digital terrain. They welcome emerging technologies, track industry developments, and preemptively recognize opportunities and challenges. Through the utilization of digital resources and platforms, digital leaders empower

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organizations to promptly adapt to market changes, explore novel business paradigms, and make well-informed decisions on the fly. They encourage employees to embrace change, cultivate an atmosphere of agility and innovation, and emphasize ongoing learning and enhancement (Sheninger, 2019; Ismail et al., 2023).

Moreover, adept digital leaders establish the ethos and trajectory for embracing digital metamorphosis and innovation within an organization (Borowska, 2019). They cultivate an environment that esteems openness, collaboration, and experimentation, prompting employees to embrace digital technologies and acclimate to evolving business milieus (Guinan et al., 2019). Digital leaders cultivate a culture that prioritizes continuous learning, fosters knowledge dissemination, and empowers employees to adopt digital tools and methodologies (Khan and Khan, 2019). By advocating for a digital-first mentality and exemplifying digital behaviors, digital leaders galvanize and incentivize employees to welcome digital initiatives, hone digital competencies, and contribute to the organization's digital transformation odyssey (Ismail et al., 2023).

The connection between strategic agility and creative performance is profound within organizational contexts (Alyahya et al., 2023). Strategic agility entails a proactive, adaptive, and responsive approach to identifying and seizing opportunities while managing risks (Setili, 2014). Creative performance involves the generation and implementation of innovative and valuable ideas, products, and processes (Frederiksen and Knudsen, 2017; Sokół and Figurska, 2021; Suksutdhi, 2024; Velwin et al., 2024). Strategic agility lays the groundwork for creative performance by fostering an atmosphere that promotes experimentation, risk-taking, and continuous learning (Ahammad et al., 2021). Organizations characterized by strong strategic agility tend to cultivate an innovative culture, empower creative thinking among employees, and offer the necessary resources and encouragement to explore and execute novel concepts (Shafique et al., 2020). Conversely, creative performance enhances strategic agility by generating innovative solutions, fostering competitive advantage, and keeping organizations at the forefront of the rapidly evolving business environment (Price and Toye, 2017).

As well, the organizational learning culture significantly influences creative performance within companies (Xie, 2019). This culture embodies values, norms, and practices that prioritize ongoing learning, knowledge exchange, and experimentation. It encourages employees to pursue new knowledge, reflect on experiences, and actively participate in learning endeavors. By creating a supportive and secure atmosphere for exploration and innovation, an organizational learning culture establishes the groundwork for individuals and teams to develop creative ideas and solutions (Al-Romeedy and Mohamed, 2022). It fosters collaboration, transparent communication, and the sharing of varied viewpoints, stimulating creativity and fostering the exploration of innovative ideas. Additionally, an organizational learning culture promotes risk-taking and views failures as essential learning experiences, thereby boosting creative performance by motivating individuals to innovate and challenge conventional wisdom (El-Awad et al., 2017; Henriksen et al., 2021).

Although digital leadership and creative performance have received considerable scholarly attention (Al-Romeedy and Mohamed, 2022), there remains a gap in research regarding the mediating role of strategic agility. Similarly, there is an underexplored area concerning the impact of organizational learning culture within the context of digital leadership and creative performance. This study aims to fill these gaps by examining how organizational learning culture mediates the association between digital leadership and creative performance. Another aspect of the research gap pertains to the scarcity of empirical investigations focusing on the tourism and hospitality sector. While existing studies have explored digital leadership and creative performance in general organizational contexts, there is a pressing need to scrutinize these associations within the unique environment of tourism and hospitality enterprises. Therefore, this study endeavors to examine the impact of digital leadership on creative performance, strategic agility, and organizational learning culture within this specific industry. Additionally, it seeks to evaluate the influence of strategic agility and organizational culture on creative performance. Finally, the study aims to delve into the mediating roles of strategic agility and organizational learning culture in the relationship between digital leadership and creative performance in tourism and hospitality businesses. Through attaining these objectives, the research aims to enrich the current literature by shedding light on the intricate interplay among digital leadership, strategic agility, organizational learning culture, and creative performance within the realm of tourism and hospitality enterprises. The discoveries gleaned from this study can offer valuable guidance to organizations operating in this sector, empowering them with actionable insights and best practices to harness the potential of digital leadership and augment creative performance. Ultimately, these insights can bolster their competitive edge and prosperity amidst the challenges and opportunities presented by the digital era.

## LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

### Dynamic capabilities theory

Dynamic Capabilities Theory emphasizes an organization's capacity to effectively integrate, cultivate, and adjust internal and external competencies to navigate swiftly evolving environment (Bleady et al., 2018). Within this framework, digital leadership assumes a central role in cultivating an environment conducive to fostering dynamic capabilities. It is instrumental in discerning shifts within the digital sphere, capitalizing on opportunities driven by technology, and translating these insights into strategies that generate value. Particularly for tourism and hospitality enterprises, which operate in domains marked by ever-changing consumer preferences and technological innovations, digital leadership becomes indispensable (Franco, 2020). As well, strategic agility constitutes a fundamental aspect of dynamic capabilities, enabling businesses to swiftly adjust their strategies and operations in innovative ways that align with the requirements of a digital marketplace. Acting as a mediator between digital leadership and creative performance, strategic agility empowers organizations to efficiently implement and leverage innovative concepts (Al-Romeedy, 2019). An organizational learning culture represents another pivotal element within the realm of dynamic capabilities, entailing the ongoing development, revitalization, and restructuring of an organization's internal assets in light of both external and internal shifts. Within the

framework of digital leadership, cultivating a culture that prioritizes learning and the exchange of knowledge augments the organization's capacity to innovate and proactively apply inventive solutions (Smerek, 2017). Ultimately, within this context, dynamic capabilities aim to bolster the organization's creative performance (Wilden et al., 2013). Through harnessing both strategic agility and an organizational learning culture, tourism and hospitality enterprises can not only flexibly respond to digital shifts but also spearhead innovative advancements that set them apart within the sector (Alqarni et al., 2023).

### **The effect of digital leadership on creative performance**

Digital leadership encompasses the capacity of leaders to navigate and harness the potential of digital technologies and trends in steering organizational success. Leaders' adept in digital leadership comprehend the significance of utilizing digital tools, data analytics, and emerging technologies to forge opportunities, enrich customer experiences, and foster innovation within the organization (Sheninger, 2019). On the other hand, creative performance pertains to the aptitude of individuals or teams in conceiving and delivering high-caliber, innovative, and impactful creative outcomes. It encompasses facets such as ideation, problem-solving, originality, and the ability to elicit emotional responses from the intended audience (Al-Azab and Al-Romeedy, 2024). The influence of digital leadership on creative performance within organizations cannot be overstated. In an era where technology continually evolves and digitalization assumes greater significance across industries, leaders well-versed in digital tools and strategies can cultivate an atmosphere conducive to creativity and bolster overall performance (Sheninger, 2019). Digital leaders recognize the capacity of digital technologies to amplify creativity. They motivate their teams to utilize digital tools and platforms for ideation, collaboration, and experimentation with diverse creative methods. Through granting access to digital assets and advocating for a digital-centric mindset, leaders empower staff to explore inventive solutions and expand the horizons of creativity (Young, 2021). Digital leadership acknowledges the significance of both information and inspiration in fostering creativity. Utilizing digital platforms, it ensures that teams have access to a wealth of resources, including online databases, industry trends, market insights, and creative inspiration from diverse outlets. This accessibility to information widens perspectives, sparks creativity, and keeps teams abreast of the latest trends and advancements (Ismail et al., 2023; Shuhua and Kanokporn, 2023). Digital leadership additionally cultivates an atmosphere conducive to experimentation and iteration. It acknowledges that creativity evolves through trial and error, requiring the refinement of ideas over time (Schiuma et al., 2022; Fang, 2023). Leveraging digital tools enables swift prototyping, A/B testing, and data-driven experimentation, facilitating the exploration of diverse creative avenues. By promoting a culture of experimentation, leaders empower teams to take calculated risks and pursue innovation (Ogundipe et al., 2024; Ismail et al., 2023). So, the following hypothesis is assumed:

**H1:** Digital leadership positively affects creative performance.

### **The effect of digital leadership on strategic agility**

Strategic agility denotes an organization's adeptness in promptly and adeptly reacting to shifts in the business milieu, seizing opportunities, and adjusting its strategies correspondingly. In today's digitally charged environment, characterized by swift technological advancements and market dynamics, digital leadership assumes a pivotal role in fostering and amplifying strategic agility (Al-Romeedy, 2019). Digital leadership comprehends the pivotal role of digital transformation in attaining strategic agility. It proactively discerns emerging technologies and trends capable of disrupting or opening new business avenues (Bellis et al., 2024). By embracing digital transformation, organizations can harness digital tools, data analytics, automation, and other digital capabilities to optimize operations, improve decision-making, and promptly adapt to market shifts. This flexibility empowers organizations to seize emerging opportunities and maintain a competitive edge (Benitez et al., 2022; Bahrami and Evans, 2014). Digital leadership underscores the utilization of data and analytics to steer strategic decision-making (Wang et al., 2022). Through digital tools and technologies, organizations access extensive data sets that inform and shape strategic trajectories (Ibeh et al., 2024). Leveraging data analytics, digital leadership delves into customer behavior, market dynamics, and competitive environment (Kolasani, 2023). These insights aid in pinpointing strategic openings, assessing risks, and executing well-informed choices. By embracing data-driven decision-making, agility is heightened as uncertainties diminish, empowering organizations to swiftly respond based on real-time insights (Medeiros and Maçada, 2022). Digital leadership advocates for efficient collaboration and communication throughout the organization (Sheninger, 2019). Utilizing digital tools and platforms, seamless communication becomes achievable, transcending geographical or organizational barriers (Nyathani, 2023). Leaders leverage these resources to promote cross-functional collaboration, knowledge dissemination, and idea exchange (Zhang and Guo, 2019). By fostering collaboration, digital leaders cultivate a culture of collective intelligence, facilitating swifter decision-making, information dissemination, and alignment with strategic objectives. This collaborative ethos bolsters agility by fostering a shared vision of the strategic trajectory and enabling synchronized action (Mukherjee, 2020; Ismail et al., 2023). Hence, the following hypothesis is postulated:

**H2:** Digital leadership positively affects strategic agility.

### **The effect of strategic agility on creative performance**

Strategic agility plays a vital role in enhancing creative performance within organizations. It enables them to swiftly respond to evolving market conditions, directly influencing creative outcomes (Alqarni et al., 2023). In a dynamic business environment, where customer preferences, industry trends, and competitive dynamics evolve rapidly, strategic agility empowers organizations to detect these shifts early and adapt their creative strategies and approaches accordingly. This flexibility ensures that creative teams remain attuned to market demands, fostering the development of innovative solutions and the delivery of compelling and contextually relevant creative outputs (Al-Romeedy, 2019). Strategic agility underscores the importance of collaboration and cross-functional integration, leading to improved creative performance.

Agile organizations frequently promote collaboration among different departments and functions. This collaborative setting amalgamates diverse viewpoints, expertise, and talents, fostering creativity and innovation. When creative individuals collaborate with counterparts from various fields like marketing, technology, or product development, they acquire valuable insights, question assumptions, and generate more comprehensive and impactful creative endeavors (Kumkale, 2022).

Strategic agility fosters a culture of perpetual learning and adaptation, igniting creative performance. Agile organizations advocate for continuous skill enhancement, knowledge dissemination, and learning from both achievements and setbacks (Prange and Heracleous, 2018). Creative practitioners within such environments can broaden their skill repertoire, remain abreast of industry developments, and experiment with novel tools and methodologies (O'Grady and O'Grady, 2017). This emphasis on ongoing learning amplifies the creative process of individuals and teams, resulting in enhanced creative performance (Seevaratnam et al., 2023). Therefore, the following hypothesis is developed:

**H3:** Strategic agility positively affects creative performance.

#### **The mediating role of strategic agility in the link between digital leadership and creative performance**

Digital leadership encompasses establishing a well-defined vision and roadmap for harnessing digital tools within an organization, aligning digital initiatives with overarching organizational objectives (Mwita and Joanthan, 2019). Strategic agility acts as a mediator by ensuring the adaptability and responsiveness of these digital strategies to shifting business dynamics, it empowers organizations to fine-tune their digital strategies in response to market intelligence, customer input, and emerging trends, thereby ensuring that creative endeavors remain synchronized with the evolving digital terrain (Salmela et al., 2022). Digital leadership champions the integration of digital tools and workflows aimed at fostering creativity and innovation, encompassing collaboration platforms, digital project management systems, data analytics, and design software (Bellis et al., 2024). Strategic agility enables the seamless adoption and utilization of these digital tools within the creative process, empowering teams to experiment with emerging technologies, embrace agile methodologies, and iterate on their work in response to immediate feedback, thereby enhancing creative performance (Alqarni et al., 2023).

Digital leadership encourages the adoption of agile workflows and collaborative practices to elevate creative performance, necessitating the dismantling of conventional hierarchical structures and the cultivation of cross-functional teamwork. Strategic agility reinforces this collaborative ethos by furnishing the requisite tools, methodologies, and communication avenues to streamline agile workflows (Khairy et al., 2023). It guarantees that creative teams can collaborate seamlessly, exchange ideas freely, and iterate on creative endeavors promptly. Through this collaborative and nimble framework, creative performance is amplified, leveraging the collective expertise of diverse team members and fostering a shared commitment to creative outcomes (Al-Romeedy, 2019). Accordingly, the following hypothesis is suggested:

**H4:** Strategic agility mediates the link between digital leadership and creative performance.

#### **The effect of digital leadership on organizational learning culture**

Organizational learning culture pertains to the collective beliefs, principles, and actions within a company that foster ongoing learning, knowledge dissemination, and inventive thinking. It encapsulates the organization's stance on and backing for learning, cooperation, experimentation, and introspection. A robust organizational learning culture stimulates innovative thought processes, facilitates the acquisition of fresh insights and competencies, and empowers employees to embrace risk-taking and offer their distinct viewpoints (Al-Romeedy and Mohamed, 2022). Digital leadership significantly influences the establishment and nurturing of an organizational learning culture (Muniroh et al., 2022). Within this framework, learning assumes a strategic imperative under the purview of digital leaders. They comprehend that to remain competitive and innovative amidst digital advancements, organizations must incessantly learn and adapt. Digital leaders disseminate the significance of learning across all organizational tiers, aligning it with overarching strategic objectives, and allot resources and backing correspondingly. By elevating learning to a strategic priority, digital leaders underscore its significance, instilling a sense of purpose and trajectory for the organization's learning culture (Gfrerer et al., 2021; Aarons et al., 2014).

Digital leadership advocates for a growth-oriented mindset throughout the organization, emphasizing the belief that individuals and teams can enhance their capabilities and competencies through persistent effort, practice, and ongoing learning endeavors. Digital leaders actively encourage employees to embrace this growth mindset by highlighting the significance of learning, experimentation, and embracing novel challenges. This shift in mindset is crucial for cultivating an organizational culture centered around learning and development (Guinan et al., 2019; Sheninger, 2019). Digital leaders acknowledge the significance of ongoing learning in a swiftly changing digital environment. They proactively advocate for and facilitate opportunities for employees to gain fresh insights, enhance their skill sets, and develop new competencies. These initiatives may involve providing training sessions, workshops, webinars, or access to online educational resources (Karakose et al., 2022; Phakamach et al., 2023). By placing a premium on and dedicating resources to continuous learning, digital leaders establish a culture where employees feel encouraged and empowered to pursue knowledge acquisition and skill enhancement (Li et al., 2016). So, the following hypothesis is proposed:

**H5:** Digital leadership positively affects organizational learning culture.

#### **The effect of organizational learning culture on creative performance**

A robust learning culture fosters ongoing skill enhancement and development among staff members. It underscores the significance of remaining abreast of the latest trends, methodologies, and technologies within their respective fields. Continuous learning bolsters the capabilities of both individuals and teams, providing them with the necessary knowledge and expertise to generate innovative ideas. It empowers employees to engage in critical thinking, explore novel methodologies, and integrate fresh perspectives into their creative endeavors (Al-Romeedy and Mohamed, 2022). A culture

of organizational learning underscores the significance of introspection and deriving insights from experience (North and Kumta, 2018). It prompts employees to assess their work critically, extract valuable lessons, and leverage these insights in subsequent endeavors. Through reflective practices, employees refine their creative methodologies, pinpoint areas ripe for enhancement, and progressively elevate their creative output (Jiao and Bu, 2024; Dinu et al., 2023). An organization fostering a robust learning culture allocates resources and establishes supportive mechanisms to facilitate continuous development. This entails offering avenues such as training initiatives, workshops, mentoring programs, and access to learning platforms (Meher et al., 2023; Sturm et al., 2021). Through these provisions, organizations empower their workforce to augment their competencies and expertise. With ample support for learning endeavors, employees are poised to excel creatively and produce top-tier outputs (Omilion-Hodges and Ackerman, 2018). An organizational learning culture that prioritizes diversity and inclusivity bolsters creative performance. Embracing a spectrum of perspectives, backgrounds, and experiences amplifies the creative reservoir within the workforce. Diverse insights and ideas from individuals with multifaceted backgrounds spur innovation, yielding a broader array of creative solutions. By nurturing an inclusive atmosphere where every voice is valued and honored, organizations harness the collective creativity of their diverse staff (Al-Romeedy and Mohamed, 2022). Hence, the following hypothesis is developed:

**H6:** Organizational learning culture positively affects creative performance.

**The mediating role of organizational learning culture in the link between digital leadership and creative performance**

Digital leadership underscores the imperative of perpetual learning and flexibility amidst technological progress and digital evolution. Leaders advocating for digital endeavors and welcoming novel technologies instill a sense of immediacy and inquisitiveness across the organization (Ismail et al., 2023). This mentality prompts employees to become adaptable learners, consistently refining their expertise and insights to synchronize with emerging digital advancements (Holbeche, 2023). An organizational learning culture bolsters this adaptability by furnishing resources, training avenues, and platforms for the dissemination of knowledge (Armanious and Padgett, 2021). Digital leadership promotes experimentation and risk-taking to stimulate innovation (Wang et al., 2022). Through endorsing a culture of experimentation, leaders cultivate an atmosphere where employees are motivated to trial new concepts, explore diverse strategies, and glean insights from setbacks. An organizational learning culture reinforces this experimental ethos by fostering psychological safety, creating an environment where employees feel at ease taking risks and extracting lessons from both triumphs and failures. This latitude for experimentation ignites creative performance and inspires employees to stretch the limits of their creativity (Liu et al., 2016; Mızrak, 2024; Edmondson, 2018). Digital leadership underscores the importance of utilizing data and feedback to inform decision-making and enhance performance. Leaders harness digital resources and analytics to collect insights, evaluate results, and offer feedback to their teams (Senadjki et al., 2024). This data-centric approach cultivates a culture of ongoing learning and refinement. An organizational learning culture empowers employees to scrutinize data, contemplate feedback, and utilize insights to improve their creative output. It nurtures a culture of responsibility and draws lessons from data-driven encounters (Al-Romeedy and Mohamed, 2022). Digital leadership acknowledges the significance of facilitating employee learning and growth through resource provision and support. Leaders allocate resources towards training initiatives, mentorship programs, and various learning avenues to enrich employees' digital competencies and expertise (Memon and Ooi, 2023). Concurrently, an organizational learning culture reinforces this effort by esteeming and prioritizing employee development. It furnishes platforms, materials, and incentives for continuous learning and skill augmentation, fostering an environment conducive to nurturing employees' creative capacities and fostering superior performance (Park et al., 2014; Hooi, 2019). Accordingly, the following hypothesis is proposed:

**H7:** Organizational learning culture mediates the link between digital leadership and creative performance.

The hypothesized research framework is presented in Figure (1) below.

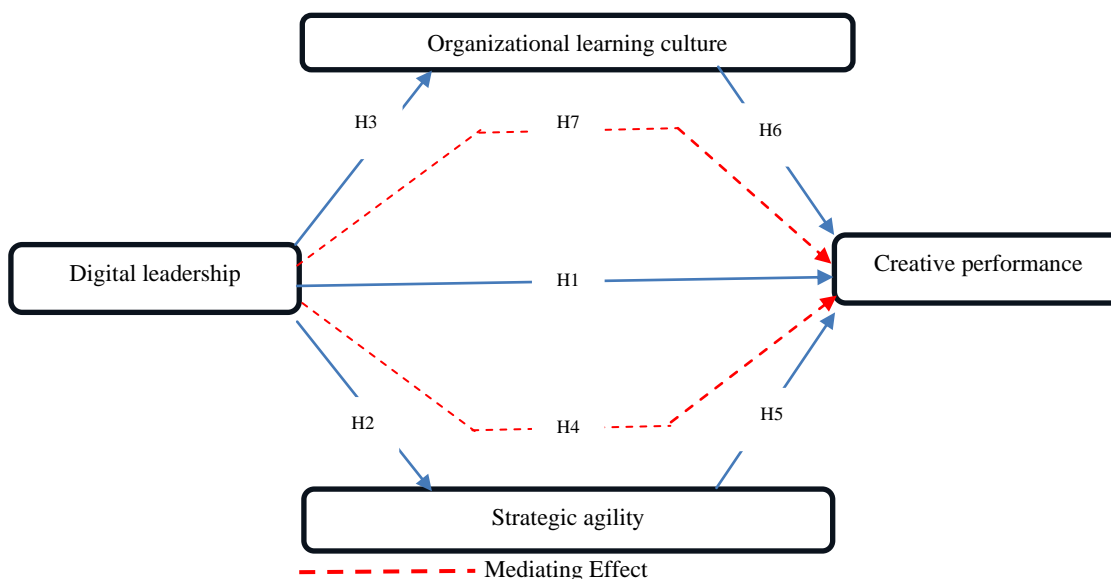


Figure 1. The hypothesized research framework

## METHODOLOGY

### Measurement and variables

A structured survey was used to explore the proposed model of the study that investigates the impact of digital leadership on creative performance, by examining the mediating roles of strategic agility (SA) and organizational learning culture (OLC) in hotel and tourism enterprises "five-star hotels and category-A tourist firms". Digital leadership was evaluated by a 7-item scale adapted from Claassen et al. (2021). Sample items includes: "I am involved in decisions that affect my work and my digital work environment" and "My digital literacy is encouraged by my manager". In addition, creative performance was measured by an 8-item scale adapted from Mutonyi et al. (2020). For example, "I try out new technology, processes and techniques to complete my work" and "I often have new ideas to accomplish my work task". Moreover, the strategic agility scale, developed by Tallon and Pinsonneault (2011), was utilized consisting of eight items. For example, "your firm responds to changes in aggregate consumer demand" and "your firm introduces new pricing schedules in response to changes in competitors' prices". Furthermore, organizational learning culture was assessed by a 7-item scale adapted form Lin and Huang (2021). For instance, "In my organization, people are rewarded for learning" and "In my organization; teams/groups revise their thinking as a result of group decisions or information collected".

### Sample and data collection procedures

The research examines middle-level management in Egypt's five-star hotels and travel agencies, highlighting their role in strategy formulation, product idea development, and organizational creativity. The Egyptian Ministry of Tourism and Antiquities has listed 30 five-star hotels and 1666 category-A travel companies in the Greater Cairo area for 2022 (Alshehri et al., 2024). The study utilized a convenience sample approach to gather data from volunteers in the Greater Cairo region of Egypt due to limited resources and dispersion of five-star hotels and travel agencies (Khairy and Elzek, 2024).

A questionnaire was distributed to 60 travel agencies and 25 five-star hotels, with 320 valid responses obtained from travel agencies and hotels, (n=120, 37.5%) and (n=200, 62.2%), respectively. Out of the 320 participants, 210 were men (65.63%) and 110 were women (34.38%); 55 (17.19%) were under 30 years, 198 (61.88%) were between 30 and 45, and 67 (20.94%) were beyond 45 years old. The study included 152 individuals (47.50%) who had one to less than three years of job experience, 126 (39.38%) had 3 to <6 years, and 42 (13.13%) had  $\geq 6$  years of experience.

### Data analysis

The study utilized WarpPLS statistical software 7.0 for data processing. The study utilized PLS-SEM, a statistical method for theory validation and extension, for data processing in complex models. It is suitable for strategic and management studies, particularly in hospitality and tourism research. In addition, a multi-group analysis was conducted and revealed no significant differences in path coefficients between staff members of five-star hotels and travel agencies ( $P>0.05$ ), despite changes in their work enterprises.

Table 1. Item loadings, Cronbach alpha, CR, AVE, and VIFs

Construct	Indicators	Item loading	Cronbach alpha	CR	AVE	VIFs
Digital leadership (DL)	DL.1	0.721	0.915	0.891	0.605	3.125
	DL.2	0.799				
	DL.3	0.808				
	DL.4	0.795				
	DL.5	0.841				
	DL.6	0.711				
	DL.7	0.762				
Creative performance (CP)	CP.1	0.851	0.935	0.920	0.642	1.797
	CP.2	0.757				
	CP.3	0.816				
	CP.4	0.769				
	CP.5	0.833				
	CP.6	0.801				
	CP.7	0.810				
	CP.8	0.768				
Strategic agility (SA)	SA.1	0.751	0.916	0.896	0.578	2.053
	SA.2	0.786				
	SA.3	0.736				
	SA.4	0.797				
	SA.5	0.745				
	SA.6	0.735				
	SA.7	0.799				
	SA.8	0.731				
Organizational learning culture (OLC)	OLC.1	0.806	0.940	0.925	0.690	2.394
	OLC.2	0.781				
	OLC.3	0.803				
	OLC.4	0.873				
	OLC.5	0.826				
	OLC.6	0.873				
	OLC.7	0.848				

**ANALYSIS AND RESULTS**

**Measurement model**

The four-factor model of digital leadership (DL), creative performance (CP), strategic agility (SA), and organizational learning culture (OLC) was tested using confirmatory factor analysis using WarpPLS software 7.0. The model's fit was analyzed using the ten fit indices suggested by Kock (2021): APC “P<0.05”, ARS “P<0.05”, AARS “P<0.05”, AVIF “acceptable if ≤5, ideally ≤3.3”, AFVIF “acceptable if ≤5, ideally ≤3.3”, GoF “small ≥0.1, medium ≥0.25, large ≥ 0.36”, SPR “acceptable if ≥ 0.7, ideally = 1”, RSCR “acceptable if ≥ 0.9, ideally = 1”, SSR “acceptable if ≥0.7”, and NLBCDR “acceptable if ≥0.7”. The proposed four-factor model provided well-fitted data: “APC=0.483, P<0.001; ARS=0.616, P<0.001; AARS=0.614, P<0.001; AVIF=3.987; AFVIF=2.750; GoF=0.622; SPR=1.000; RSCR=1.000; SSR=1.000; and NLBCDR=1.000”. According to data tabulated in Table (1), the research constructs had composite reliability ratings above the minimal acceptable level (CR>0.70), with statistically significant item loadings (p<0.05).

Table 2. Discriminant validity results

	OLC	DL	CP	SA
Organizational learning culture (OLC)	<b>0.836</b>	0.778	0.456	0.566
Digital leadership (DL)	0.761	<b>0.836</b>	0.534	0.601
Creative performance (CP)	0.456	0.534	<b>0.801</b>	0.637
Strategic agility (SA)	0.566	0.601	0.637	<b>0.760</b>

The study's validity was also confirmed by AVE values of digital leadership, creative performance, strategic agility, and organizational learning culture (AVE>0.50), and the model is free of common method bias (VIFs≤3.3). Table (2) confirms the study model's discriminant validity, with higher AVE values and less than unity correlations between variables. In addition, the validity of the constructs was confirmed through the calculation of the HTMT, as shown in Table 3.

Table 3. HTMT for validity

HTMT ratios (good if < 0.90, best if < 0.85)	OLC	DL	CP	SA
Organizational learning culture (OLC)				
Digital leadership (DL)	0.822			
Creative performance (CP)	0.496	0.591		
Strategic agility (SA)	0.624	0.675	0.701	
P values (one-tailed) for HTMT ratios (good if < 0.05)	OLC	DL	CP	SA
Organizational learning culture (OLC)				
Digital leadership (DL)	<0.001			
Creative performance (CP)	<0.001	<0.001		
Strategic agility (SA)	<0.001	<0.001	<0.001	

**Results of direct effects**

Data in Figure (2) and Table (4) reveals that digital leadership (DL) positively affects creative performance (CP) (β=0.12, P=0.01), strategic agility (SA) (β=0.66, P<0.01), and organizational learning culture (OLC) (β=0.84, P<0.01). As DL increases, CP, SA, and OLC also increase, indicating that H1, H2, and H5 are supported. In addition, CP is affected by SA (β=0.48, P<0.01) and OLC (β=0.32, P<0.01). High SA and OLC levels tend to increase CP, supporting H3 and H6.

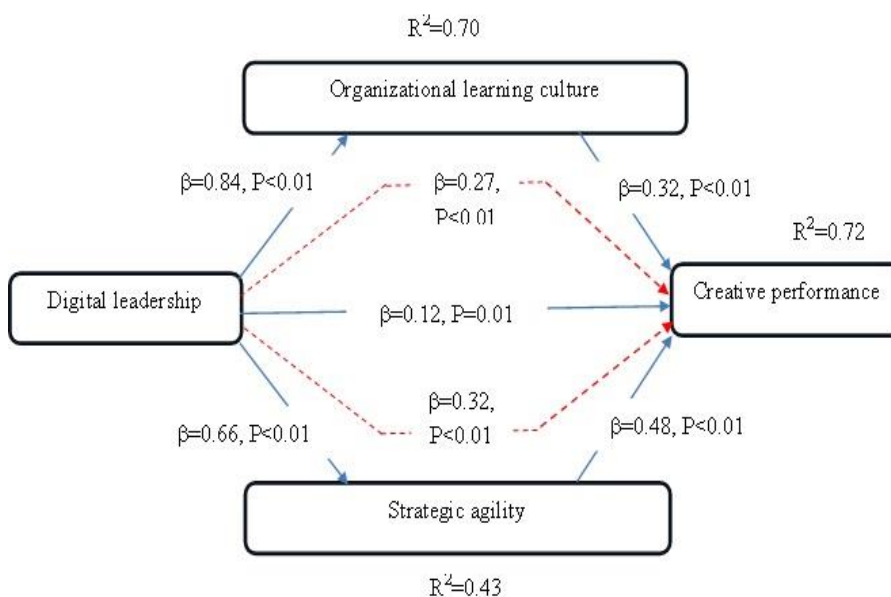


Figure 2. Final model of the study



Table 4. Direct effects

Hypotheses	Relationship	Direct effect ( $\beta$ )	Sig.	Decision
H1	DL→CP	0.12	P=0.01	Supported
H2	DL→SA	0.66	P<0.01	Supported
H3	DL→ OLC	0.84	P<0.01	Supported
H5	SA→CP	0.48	P<0.01	Supported
H6	OLC → CP	0.32	P<0.01	Supported

### Mediation Analysis

Preacher and Hayes' (2008) approach was utilized to examine the mediation effects of strategic agility (SA), and organizational learning culture (OLC) in DL→CP relationship. The study found a significant indirect effect of SA  $\{\beta=0.317 (0.660 \times 0.480), SE=0.037, P<0.01, t\text{-value}=8.562; LL=0.244, UL=0.389\}$  and OLC  $\{\beta=0.269 (0.840 \times 0.320), SE=0.037, P<0.01, t\text{-value}=7.265, LL=0.196, UL=0.341\}$  on the DL→CP relationship, supporting the hypotheses of mediation (H4 and H7).

Table 5. Mediation analysis' Bootstrapped Confidence Interval

Hypo.	Relationship	Path a	Path b	Indirect Effect	SE	t-value	Bootstrapped Confidence Interval		Decision
							95% LL	95% UL	
H.4	DL→SA→CP	0.660	0.480	0.317	0.037	8.562	0.244	0.389	Mediation
H.7	DL→OLC→CP	0.840	0.320	0.269	0.037	7.265	0.196	0.341	Mediation

### DISCUSSION

This study examines the efficacy of digital leadership in enhancing creative performance by investigating the roles of strategic agility and organizational learning culture in tourism and hospitality enterprises. The study indicates that digital leadership positively impacts creative performance, consistent with previous research by Schiuma et al. (2022) and Fang (2023). Digital leadership acknowledges the critical role of perpetual learning and skill enhancement in today's swiftly changing digital environment (Jameson et al., 2022). It promotes a culture where teams are encouraged to seize ongoing learning prospects, be it through online courses, webinars, or industry events. By staying abreast of the latest digital methodologies, tools, and trends, creative professionals can broaden their expertise and retain their competitive edge. This dedication to continual learning not only bolsters creative performance but also equips teams to capitalize on emerging technologies and prospects (Ismail et al., 2023). The study also indicates that digital leadership enhances strategic agility, in line with previous research by Bellis et al. (2024) and Ibeh et al. (2024). Digital leadership frequently spearheads the implementation of agile organizational structures and methodologies (Kupiek, 2021). Agile frameworks like Scrum or Kanban emphasize flexibility, responsiveness, and adaptability (Malakar, 2021). Encouraging cross-functional teams, empowered decision-making, and iterative workflows, digital leadership promotes agility (Kupiek, 2021).

Agile structures empower organizations to swiftly pivot priorities, reallocate resources, and adapt strategies in response to shifting market dynamics or emerging opportunities. This nimbleness augments strategic agility by enabling organizations to promptly align their capabilities with evolving business imperatives (Holbeche, 2023). In addition, the study indicates that strategic agility positively impacts creative performance, consistent with previous studies by Alqarni et al. (2023) and Seevaratnam et al. (2023). Strategic agility enables organizations to dynamically allocate resources, directly influencing creative performance (Egunjobi and Aremu, 2023). Creative endeavors typically demand diverse resources like talent, time, and budget. Within an agile framework, resources can be flexibly assigned or reassigned in response to shifting project priorities or emerging opportunities. This adaptability guarantees that creative teams access the requisite resources promptly, empowering them to produce top-tier work within designated timeframes. Efficient resource allocation enhances creative performance and empowers teams to navigate potential bottlenecks or limitations (Khairy et al., 2023).

Moreover, the study reveals that strategic agility plays a mediating role in digital leadership and creative performance relationship, consistent with previous research by Alqarni et al. (2023) and Bellis et al. (2024). Digital leadership underscores the significance of cross-functional collaboration (Yansen and Yujie, 2023). Strategic agility serves as a facilitator by enabling effective cross-functional collaboration among creative teams and other organizational units, such as marketing, technology, and data analytics (Hyun et al., 2023; Akter et al., 2023). This collaborative approach encourages the sharing of knowledge, amalgamates diverse viewpoints, and enriches the creative process. Strategic agility ensures that digital leaders cultivate an environment conducive to seamless collaboration across different teams, allowing them to leverage each other's expertise in pursuit of creative excellence (Defillippi et al., 2009; Ismail et al., 2023). Furthermore, the study indicates that digital leadership positively impacts organizational learning culture, consistent with previous research by Gfrerer et al. (2021) and Muniroh et al. (2022). Digital leadership cultivates a culture of collaboration and knowledge exchange throughout the organization. This entails dismantling barriers between departments and encouraging cross-functional cooperation (Yi, 2019). Utilizing digital tools and technologies, digital leaders facilitate communication, collaboration, and the dissemination of best practices and lessons learned. By fostering an environment where employees are encouraged to share their expertise, insights, and experiences, digital leaders establish a culture where knowledge circulates freely, and learning is deeply ingrained in the organizational ethos (Peng, 2022; Johannessen, 2020).

Additionally, the study indicates that an effective organizational learning culture can enhance creative performance, in line with previous research by Dinu et al. (2023) and Jiao and Bu (2024). An organizational learning culture motivates



employees to venture into uncharted territories, test various methodologies, and embrace risks without apprehension of failure. This receptiveness nurtures creativity by providing individuals with the encouragement to explore unconventional paths and challenge conventional norms in their endeavors. Such a culture not only sparks novel ideas but also facilitates the swift evolution and enhancement of these concepts, vital for achieving fruitful creative results (Edmondson, 2018; Resnick, 2017).

Lastly, the study reveals that organizational learning culture plays a mediating role in influencing the relationship between digital leadership and creative performance, aligning with previous research of Al-Romeedy and Mohamed (2022) and Senadjki et al. (2024). Digital leaders exemplify a commitment to perpetual learning and creative prowess (Mollah et al., 2023). Their personal dedication to learning, adaptability, and ingenuity establishes the groundwork for the organizational learning ethos (Sheninger, 2019). Through active participation in learning endeavors, knowledge sharing, and demonstration of a growth-oriented mindset, leaders inspire and encourage employees to follow suit. By modeling these behaviors, leadership ignites a chain reaction across the organization, reinforcing the value of learning and catalyzing creative performance (Kouzes and Posner, 2024; Van Dijk et al., 2021).

### **Theoretical implications**

This study substantially enhances Dynamic Capabilities Theory by illustrating the nuanced role of dynamic capabilities, such as strategic agility and organizational learning culture, under the purview of digital leadership. It elucidates these capabilities' pivotal function as mediators, translating leadership endeavors into measurable performance outcomes, particularly within industries reliant on swift adaptations to consumer trends and technological shifts. While Dynamic Capabilities Theory conventionally emphasizes an organization's adeptness in responding to technological and market shifts, it typically overlooks the significance of digital leadership. This study introduces digital leadership as a pivotal catalyst for dynamic capabilities, thereby infusing a contemporary perspective into the theory. Such inclusion is especially pertinent considering the rapid advancement of digital transformation across business realms and customer engagements, notably within the tourism and hospitality sectors.

The study provides valuable insights into the practical application of strategic agility and organizational learning culture to improve creative performance. By offering a framework for implementation, it not only offers practical guidance for businesses but also advances theoretical understanding regarding the systematic development and utilization of these capabilities. It demonstrates that strategic agility extends beyond swift responses to encompass effective opportunity capture, while an organizational learning culture entails instilling a mindset of continuous improvement to sustain long-term innovation efforts. As well, utilizing Dynamic Capabilities Theory within the context of the tourism and hospitality sector, the study enriches our industry-specific comprehension of dynamic capabilities. Given the distinct challenges posed by the service-oriented nature and consumer-centric focus of this sector, as well as the rapid evolution in consumer technology usage, these findings offer tailored insights. They demonstrate how businesses can adapt and thrive by cultivating agility and fostering a culture of continuous learning to effectively navigate the sector's complexities and remain competitive.

The findings prompt a more expansive understanding of dynamic capabilities, indicating their significance extends beyond mere adaptation to change, encompassing a pivotal role in fostering creative performance. This broadening of the theory underscores the proactive facets of dynamic capabilities, emphasizing their vital role not solely in ensuring organizational survival, but in enabling flourishing within competitive markets through innovative endeavors. In terms of theory, the study enhances Dynamic Capabilities Theory by incorporating digital leadership, offering a more nuanced insight into how contemporary leaders can adeptly utilize organizational resources and capabilities amidst digital shifts. On a practical level, it provides tangible guidance for industry practitioners on cultivating an atmosphere conducive to swift strategic adaptations and ongoing learning, serving as avenues to bolster innovation and creative outcomes.

### **Practical implications**

This study carries various practical implications for companies within the tourism and hospitality sector. These implications, rooted in Dynamic Capabilities Theory, offer actionable guidance for organizations seeking to improve their performance and agility amid the digital age. To cultivate digital leadership capabilities, organizations can implement various strategies, including offering training programs, workshops, and coaching sessions aimed at enhancing leaders' digital literacy, technological acumen, and strategic prowess in the digital environment. These initiatives may cover diverse topics such as digital marketing, data analytics, emerging technologies, and strategies for digital transformation. Additionally, fostering collaboration between leaders and digital experts within the organization can be instrumental. This collaboration facilitates the exchange of insights on digital trends, opportunities, and challenges, empowering leaders to make well-informed decisions and effectively drive digital initiatives forward. Encouraging leaders to engage in industry events, conferences, and digital communities is also beneficial, as it allows them to expand their knowledge base, remain abreast of the latest industry practices, and forge connections with other digital leaders. Such external networking endeavors serve to augment their digital leadership competencies and provide access to valuable insights and best practices from the broader digital ecosystem.

In nurturing strategic agility, organizations ought to institute procedures and platforms for monitoring the external environment, encompassing factors like market trends, emerging technologies, competitors' strategies, and customer inclinations. This proactive stance allows organizations to promptly discern both opportunities and threats, facilitating agile decision-making and adaptation. Moreover, organizations should establish a decision-making framework conducive to agility, featuring elements such as decentralized decision-making, cross-functional collaboration, and rapid experimentation. By empowering employees across various levels to make decisions and undertake calculated risks, organizations cultivate a culture of agile decision-making. Additionally, organizations must devise mechanisms for flexible

resource allocation, entailing the dynamic allocation of resources in response to shifting priorities, market dynamics, and emerging prospects. This may necessitate the adoption of agile project management methodologies and resource allocation processes designed to facilitate swift adjustments and resource reallocation.

To nurture an organizational learning culture, organizations can offer diverse learning avenues, including training programs, workshops, seminars, and online courses, aimed at enriching employees' knowledge and skills. These initiatives may cover areas such as digital technologies, creativity, innovation, customer experience, and other pertinent subjects. Establishing platforms for knowledge exchange, such as internal social networks, collaboration tools, and communities of practice, encourages employees to share their insights, experiences, and best practices. This fosters organizational learning and facilitates the dissemination of knowledge and innovative concepts. Furthermore, organizations should cultivate a supportive atmosphere that promotes experimentation and risk-taking. This entails embracing a mindset that regards failures as valuable learning experiences and acknowledges employees' innovative endeavors, even if they do not always yield successful outcomes. Encouraging experimentation fosters a culture of continual learning and innovation.

Importantly, to effectively integrate digital transformation and dynamic capabilities, organizations must synchronize their digital transformation endeavors with their overarching strategic objectives. This entails evaluating how digital technologies and competencies can bolster the organization's vision, mission, and long-term strategy. By harmonizing digital transformation initiatives with the cultivation of dynamic capabilities, organizations can guarantee that their digital endeavors contribute meaningfully to their overall performance and competitive edge. Strategic resource allocation is paramount for supporting both digital transformation initiatives and the cultivation of dynamic capabilities. This involves strategically allotting financial resources, technological infrastructure, and human capital to nurture digital leadership, strategic agility, and an organizational learning culture. Prudent resource allocation ensures that requisite investments are made to position the organization for success in the digital environment.

Significantly, organizations ought to foster a culture that prioritizes growth and learning, nurturing a mindset of continuous improvement among employees. This entails placing value on curiosity, ongoing learning endeavors, and personal advancement. Offering avenues for employees to enhance their digital proficiency and fostering an environment conducive to knowledge exchange and collaboration promotes continual learning. Moreover, organizations should establish platforms or initiatives that facilitate the generation of ideas, collaborative brainstorming sessions, and team-based problem-solving efforts. These platforms, which may include innovation labs, hackathons, cross-functional project teams, and suggestion systems, provide outlets for employees to share their insights, explore innovative approaches, and cultivate creativity and ingenuity within the organization. Recognizing and rewarding employees for their innovative contributions serves to incentivize and inspire them to remain engaged in continuous learning and idea generation. Organizations can institute recognition programs, innovation accolades, or performance-based incentives to honor and celebrate employees' endeavors in fostering creativity and innovation.

### **Limitations and future research**

While the study provides valuable insights, it's essential to acknowledge its limitations and pinpoint potential avenues for future research. The study's reliance on a limited sample size from specific organizations within the tourism and hospitality industry might restrict the generalizability of the findings to the broader industry or other sectors. Future research endeavors could address this limitation by expanding the sample size and incorporating a more diverse array of organizations to bolster the applicability of the findings. Moreover, the study concentrated solely on exploring the mediating roles of strategic agility and organizational learning culture. Future research initiatives could delve into examining additional mediating or moderating variables that might influence the association between digital leadership and creative performance. For instance, variables such as organizational structure, employee motivation, or technological infrastructure could be further explored to offer a more comprehensive understanding of the dynamics at play.

The study centered on creative performance as its outcome variable. However, future research endeavors could explore the broader spectrum of performance outcomes associated with digital leadership, strategic agility, organizational learning culture, and dynamic capabilities. This may encompass long-term metrics like financial performance, customer satisfaction, and competitive advantage. In addition, future research could adopt a mixed methods approach that integrates both quantitative and qualitative methodologies. While the study predominantly relied on quantitative data, incorporating qualitative techniques such as interviews, focus groups, or case studies could yield deeper insights into the subjective experiences, perceptions, and contextual intricacies surrounding digital leadership, strategic agility, organizational learning culture, and creative performance. This blended approach would facilitate a more holistic understanding of the phenomena being studied. Extended longitudinal studies offer an opportunity to delve into the dynamic interplay among digital leadership, strategic agility, organizational learning culture, dynamic capabilities, and creative performance. Observing the evolution and interactions of these variables over time provides researchers with a comprehensive perspective. Through this lens, researchers can discern causal relationships, detect temporal patterns, and evaluate the enduring efficacy of organizational strategies.

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