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Social media usage and creativity in Jordan: Knowledge management as a mediator

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Abstract

The purpose of this study is to investigate the impact of social media usage on creativity in Jordanian universities, with knowledge management (KM) serving as a mediating factor. A quantitative structured questionnaire was administered to a sample of 1,163 faculty members and administrative staff across various departments. The approach for this research employed a descriptive-analytical method, supported by statistical tools such as descriptive statistics and regression analysis. Results indicate that social media use has a significant direct positive effect on creativity. Moreover, when mediated by KM, the influence of social media on creativity becomes stronger and more stable. KM enhances the ability of institutions to leverage social media for knowledge sharing, collaboration, and idea generation, thus contributing to creative performance. The findings also show that KM alone positively affects creativity, emphasizing its strategic role in academic environments. The study concludes that the combined use of social media and effective KM practices can substantially improve innovation within universities. It recommends that institutions evaluate social media performance more systematically, considering technological, organizational, and environmental factors. Additionally, greater emphasis should be placed on strengthening KM capabilities, enabling decision-makers to foster dynamic, knowledge-driven environments that support continuous improvement and creativity.

Keywords: Creativity, Jordanian universities, knowledge management, social media usage.

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1. Introduction

The rapid development of the internet and the interactive capabilities of social media platforms have significantly transformed modes of self-expression and communication. These platforms have enabled more diverse, flexible, and autonomous forms of engagement, marking a new phase in communicative practices [1]. Social media serves as a powerful tool for attracting the attention of information disseminators, enabling real-time adaptation of content based on user

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preferences. The fundamental objective of social media is to provide users with accessible and dynamic platforms for selfexpression. In this context, social media functions not only as a conduit for generating and sharing networked information but also as a medium for the creation, exchange, and development of ideas, opinions, and experiences [2].

Within organizational contexts, social media has become indispensable. It facilitates continuous communication and collaboration among employees, yielding numerous strategic benefits for institutional development [3]. The influence of social media on the educational sector, in particular, is considerable. It plays a dual role in learning both positively and negatively and has sparked considerable debate among academics, students, and policymakers regarding its effects. Despite its widespread use, the integration of social media into educational frameworks remains underdeveloped [4]. Since the early 2000s, educators have recognized the potential of platforms such as Facebook, Twitter, and YouTube as complementary tools for teaching and learning. More recently, the scope and depth of their application have expanded, ushering in a new era of digital education characterized by enhanced communication, collaboration, and unrestricted access to information [5].

Parallel to these developments is the increasing organizational awareness of the importance of knowledge management (KM) systems. These systems are now seen as critical success factors not only at the institutional level but also globally. The pursuit of explicit knowledge, self-reflection, innovation, and organizational renewal forms the foundation of KM. It is understood as a long-term strategic initiative that draws on collective social knowledge and shared wisdom through large-scale collaboration. As an interdisciplinary field, KM attracts a wide range of academic and professional interests [6]. It encompasses diverse theories, models, processes, and technologies that support the acquisition, development, protection, and application of knowledge assets. KM is one of the most valuable resources within an organizational demands for knowledge creation and sharing [7].

Employee creativity is also fundamentally linked to knowledge-related processes. Creativity within the workplace often emerges from the cognitive activities individuals undertake to resolve complex problems. The acquisition and sharing of knowledge with colleagues significantly enhances this creative capacity [8]. Social media facilitates the rapid dissemination of information within organizations, creating a dynamic knowledge-sharing environment. However, employees' willingness to engage in collective knowledge creation is often shaped by their perceptions of the risks and benefits associated with knowledge exchange, particularly with social media use [9]. By offering efficient mechanisms for information flow and transfer, social media enables employees to access and circulate various forms of knowledge. This, in turn, supports innovation and enhances the organization's creative output. The opportunity to interact within a socially networked environment fosters the development of novel ideas, thereby increasing employee creativity an essential element for organizational sustainability and growth. Ultimately, the ability to exchange and transfer knowledge via social media is a key determinant in enhancing creativity within the workplace [10].

Nonetheless, despite its advantages, the effective utilization of social media for knowledge management and the indirect promotion of employee creativity remains underdeveloped in many institutions. This limitation underscores the need for organizations, particularly universities, to adopt more structured and strategic approaches to social media integration. Doing so would enhance knowledge sharing, stimulate creativity, and yield long-term benefits for institutional innovation and development, both in the present and in the future.

2. Literature Review and Hypotheses Development

2.1. Literature Review

Social media has profoundly transformed communication and information consumption in the 21st century. It has become a central element of daily life, influencing individuals, organizations, and society. This digital landscape transcends geographical boundaries, enabling users to interact, share, and express themselves more freely [11]. As of 2023, Facebook leads global platforms with 2.85 billion monthly active users, followed by YouTube (2.29 billion) and WhatsApp (2 billion) [12].

Social media comprises various Internet-based technologies that facilitate user-generated content, including platforms such as Facebook, Twitter, YouTube, Instagram, WhatsApp, and others [13, 14]. These tools serve both social and work-related purposes. Socially, they support relationship building, communication, and interest-based interactions [15]. Professionally, they are used for collaboration, information sharing, and organizational communication [16]. Thus, social media enables both personal connectivity and organizational efficiency.

In the educational domain, the expansion of social software aligns with the increasing interest among educators in leveraging these platforms as an extension of traditional learning management systems [17]. Social media fosters participatory learning by transforming passive students into active contributors, enabling collaborative learning environments, and encouraging creative expression [18].

Creativity is defined as the ability to produce novel and useful ideas, often through cognitive processes involving problem-solving, ideation, and knowledge integration [19, 20]. In organizational contexts, creative employees are adaptable, knowledge-driven, and capable of developing innovative solutions amid dynamic environments [21]. Creativity in higher education is increasingly valued as a critical graduate attribute linked to problem-solving, critical thinking, and interdisciplinary practices [22, 23].

From a pedagogical perspective, fostering creativity involves modelling creative practices, encouraging collaboration, incorporating playful learning, and empowering students to take responsibility for their learning [24, 25]. These strategies help cultivate a creative disposition characterized by curiosity, risk-taking, and persistence traits essential in both academic and professional environments.

Knowledge management (KM) is a critical driver of organizational success, encompassing the processes of acquiring, creating, organizing, and applying knowledge to improve decision-making and performance [26, 27]. In universities, KM facilitates interdisciplinary collaboration, innovation, and institutional effectiveness [28]. Effective KM requires attention to technical, organizational, and cultural dimensions, ensuring that both explicit and tacit knowledge are leveraged strategically.

In higher education institutions, KM involves both academic and administrative processes. Faculty members play a pivotal role in knowledge dissemination, curriculum development, and research initiatives, making them central actors in KM systems [29]. Optimizing KM practices helps universities achieve strategic objectives, such as improving quality, enhancing research output, and fostering innovation.

Several studies have explored KM within academic institutions. Popov and Vlasov [30] linked university research output to transaction costs, emphasizing the importance of institutional structures in enabling knowledge creation. Al-Qarioti [31] found that KM significantly impacts organizational excellence in higher education settings. Similarly, Alzoubi and Alnajjar [32] identified strategy, information systems, culture, and communication as foundational components of KM architecture in Jordanian universities.

Basu and Sengupta [33] and Sireteanu and Grigoruta [34] highlighted the importance of KM in business schools and Jordanian universities, respectively, arguing that KM can transform these institutions into learning organizations. De Silva [27] underscored the changing role of academic libraries in KM, noting their increasing importance in enhancing institutional competitiveness through the effective use of internal knowledge resources.

Collectively, these studies demonstrate that successful KM depends on leadership commitment, robust technological infrastructure, and an organizational culture conducive to knowledge sharing. IT tools enhance knowledge creation, transfer, and asset development, with platforms such as databases, intranets, and collaborative systems facilitating these processes [21, 35-37], affirming that information and communication technology (ICT) is a prerequisite for effective KM.

Social media, when integrated into KM systems, offers further potential to enhance creativity and communication in academic settings. By facilitating real-time interaction, information sharing, and collective knowledge creation, social media becomes a tool not only for social connectivity but also for educational enrichment. Employees' engagement with social media contributes to the flow of information, fostering innovative thinking and creative problem-solving [9].

However, the integration of social media into KM and educational practices is still evolving. Institutions must overcome challenges related to policy, training, infrastructure, and cultural resistance. A strategic approach is required to maximize the benefits of social media while ensuring that it aligns with institutional goals and supports both knowledge development and creativity.

In conclusion, social media has reshaped communication and collaboration in both personal and professional contexts. In higher education, it supports new pedagogical approaches and enhances creativity among students and educators. Knowledge management, when effectively implemented and supported by social media and ICT infrastructure, becomes a cornerstone of institutional success. Future efforts should focus on developing comprehensive frameworks that integrate social media, creativity, and KM to foster innovation and excellence in academic institutions.

2.2. Study Hypotheses

Social media has become an integral part of everyday life, profoundly transforming how individuals communicate, collaborate, and manage knowledge. In higher education, its use is shifting control and responsibility into the hands of learners. However, while technological mediation has become widespread, authentic, learner-centered integration into educational contexts remains limited. Current learning technologies often reflect teacher-centered models, constraining their ability to support constructivist, collaborative pedagogies [4].

Institutional barriers including concerns about intellectual property, copyright, and data security often hinder systematic support for social media in teaching and learning. Despite this, many academics independently explore its pedagogical potential, finding institutional systems too rigid for innovative approaches [21].

This study investigates the relationship between social media, creativity, and knowledge management at Jordanian universities. It proposes the following hypotheses:

 H_1 . There is a positive impact at the significance level ($\alpha \le 0.05$) of social media usage on creativity at Jordanian universities.

Knowledge management (KM) encompasses more than information; it includes beliefs and shared institutional expertise [38, 39]. Effective KM requires transferring knowledge from individuals to organizations, capturing both tacit and explicit knowledge to optimize internal capabilities [14].

 $H_{2:}$ There is a positive impact at the significance level ($\alpha \le 0.05$) of social media usage on knowledge management at Jordanian universities.

KM is central to organizational processes, particularly as knowledge-related dimensions significantly affect employee behaviour and creativity [40]. Effective KM creates infrastructure that fosters the generation, sharing, storage, and application of knowledge.

 $H_{3:}$ There is a positive impact at the significance level ($\alpha \le 0.05$) of knowledge management on creativity at Jordanian universities.

KM comprises several dimensions, each contributing uniquely to creativity:

Knowledge Acquisition involves both the internal generation and external sourcing of knowledge. Internally, organizations build on existing knowledge, while externally, they integrate new insights from outside sources. Together, these processes enhance absorptive capacity and innovation [40, 41].

 $H_{3.1:}$ There is a positive impact at the significance level ($\alpha \le 0.05$) of knowledge acquisition on creativity at Jordanian universities.

Knowledge Sharing is a cultural and social interaction, essential for knowledge creation and innovation. It includes disseminating best practices, experiences, and insights, facilitating better decision-making and enhanced performance [42-44].

 $H_{3.2:}$ There is a positive impact at the significance level ($\alpha \le 0.05$) of knowledge sharing on creativity at Jordanian universities.

Knowledge Storage refers to the systematic collection, evaluation, and organization of knowledge for future retrieval. Both explicit and tacit knowledge should be documented and managed to reduce redundancy and improve access [5, 45].

 $H_{3.3:}$ There is a positive impact at the significance level ($\alpha \le 0.05$) of knowledge storage on creativity at Jordanian universities.

Knowledge Application emphasizes the use of stored and acquired knowledge to improve decision-making and enhance innovation. Knowledge must be actively applied to remain relevant, influencing strategic development and operational efficiency [46, 47].

 $H_{3.4:}$ There is a positive impact at the significance level ($\alpha \le 0.05$) of knowledge application on creativity at Jordanian universities.

Social media plays a pivotal role in supporting these KM processes. It enhances interpersonal interactions and facilitates the sharing of tacit and explicit knowledge [48]. Social media platforms such as blogs, wikis, and social networks promote knowledge creation, dissemination, and collaboration [49].

These platforms allow users to maintain broad, diverse networks, fostering trust and knowledge exchange while introducing new perspectives and ideas [50]. Thus, social media becomes a dual facilitator supporting both the technological and social dimensions of KM.

Moreover, the use of social media fosters a knowledge-rich environment that enhances creativity. Its ability to connect users across time and space promotes knowledge reuse and access to expert insight. By enhancing collaboration and communication, social media strengthens the organization's knowledge infrastructure and creative capabilities.

The integration of social media in organizational KM initiatives should be approached as a dynamic process rather than a one-time decision. Successful implementation requires a supportive technological environment and organizational readiness to embrace knowledge-sharing cultures.

 $H_{4:}$ There is a positive impact at the significance level ($\alpha \le 0.05$) of social media usage on creativity through the mediating role of knowledge management from the perspective of employees at Jordanian universities.

3. Research Method

3.1. Data and Sample Selection

The study population consisted of 28 Jordanian universities (governmental and private) for the year 2024, while the study sample comprised employees in Jordanian universities, numbering 1,163 employees. The questionnaire was distributed electronically in most universities, and a group of questionnaires was distributed directly to the sample members. The following table shows the study population and sample.

Table 1.

Names of the Universities in the Study Sample.

University Name	Population	Sample
The University of Jordan	4855	189
Yarmouk University	3743	105
Jordan University of Science and Technology.	1562	153
The Hashemite University.	2632	101
Al-Bayt University.	607	87
Al-Hussein Bin Talal University.	810	103
German Jordanian University.	583	63
Jadara University.	435	37
Irbid Private University.	289	32
Al-Zaytoonah University of Jordan.	310	91
Philadelphia University.	528	74
University of Applied Sciences	636	128
Total	16990	1163

The researcher distributed (1230) questionnaires to employees working in all administrative departments and faculty members of the (12) mentioned universities. (1179) were retrieved, and the number of questionnaires valid for analysis was (1163) questionnaires, and the response rate was (94.5%).

3.2. Study Framework, Model, and Variables



Study's Hypothetical Framework.

Prepared by the researcher based on a group of studies such as: Zhang, et al. [10]; Lu, et al. [51]; Bock and Kim [52]; Connelly, et al. [53], and Al-Qarioti [31].

Structural Equation Modeling (SEM) was followed using AMOS to examine the model. Bock and Kim [52] pointed out that data is determined to be normally distributed if the values fall within the range (± 2.2), and close to zero is better. Table 2 presents the values of skewness and kurtosis, it shows the maximum recorded value for skewness is (-0.464), meanwhile, the maximum recorded value for kurtosis is (1.261), none of the skewness or kurtosis values exceeds the suggested level, then, this means that the normal distribution (normality) is likely not a concern.

3.3. Methodology

As none of the elements/components/items have been eliminated at this stage, almost all values have skewness and kurtosis within the normally accepted limits, with no extreme deviation levels that could affect the statistical analysis results. Therefore, AMOS analysis would not be impacted.

Table 2.

Variables	Skewness	Kurtosis
Social Media Usage	-0.464	0.584
Creativity	-0.948	0.579
Knowledge Management	-0.1008	1.261

In diagnosing the multicollinearity problem, variance inflation factor (VIF), tolerance values, and Pearson correlation were calculated. Tolerance values should not be less than (0.10), while the general cutoff point for VIF should not exceed (10), meanwhile, Pearson correlations should not exceed (r=0.90). Table 3 presents the results of multicollinearity diagnosis for constructs of an independent variable and mediating variable respectively supporting that multicollinearity is not a concern in this study as well. VIF and tolerance values were within acceptable levels and constructs within social media usage and KM correlated with each other significantly at (0.01) level, none of the correlations was seen greater than (r=0.90).

Table 3.

Multicollinearity Diagnosis for SM and KM Constructs (n=1163).

Tolerance	VIF	Pearson Correlation		
0.563	1.776	1		
0.356	2.808	.395**	1	
	Tolerance 0.563 0.356	Tolerance VIF 0.563 1.776 0.356 2.808	Tolerance VIF Pearse 0.563 1.776 1 0.356 2.808 .395**	

Note: ** Correlation is significant at (0.01) Level.

Table 4 includes a summary describing the demographic variables of the study sample individuals. The validated sample consists of 843 males (72.5%) and 320 females (27.5%), showing diversity concerning gender. Furthermore, high literacy characterizes the sample as 572 respondents hold postgraduate degrees (recorded as the highest count). As for the job level variable, the highest percentage was for the lecturer, 497, or 42.7%, while the lowest percentage was for the dean, with a percentage of 1.5%. As for the experience variable, the highest category was "10 and less than 15 years" (52.5%), while the lowest percentage was "15 years and over" (1.4%). Table 4 includes a summary describing the demographic variables of the study sample members.

Table 4.

Scale for Mean Levels

Seale for Infeat Levels.							
Low Level	Moderate Level	High Level					
1-2.33	2.34-3.67	3.68-5					

Analysis was completed using SEM-AMOS software version 27. SEM has many advantages as it enables regression analysis to factor analysis. Moreover, it allows for testing causal relationships among latent constructs that are indicated by multiple measures [54]. SEM is a dominant multivariate technique for specific social sciences, assisting researchers in analyzing a set of regression equations simultaneously [55].

SEM-AMOS was seen as most suitable for this study to test the hypotheses. The approach proposed by Anderson and Gerbing [56] guided SEM analysis; this approach involves two stages. In Stage 1; the Measurement Model was assessed in which goodness of fit (GOF) and reliability of the constructs were validated and verified by analyzing the factorial structure of all constructs, the ultimate goal of Stage 1 is to validate the quality of measurement scales, this was established by conducting CFA that comprised of many revises for measurement scales. In stage 2, the structural model was assessed in which hypotheses of the model were tested in different structural models, recommendations were that [57].

Measurement model testing has been done by using CFA. To specify the relations of observed statements to their posited underlying constructs, CFA was implemented. Each Scale's social media usage, creativity, and KM were individually analyzed. CFA in AMOS relies on satisfying GoF metrics that examine the model's fitness. The following indices were used to satisfy GoF metrics requirements guided by suggestions of Hu and Bentler [58] and Hair et al. [54]: Chi-Square Fit Statistics / Degree of Freedom (CMIN / DF) (x_2) > 3 good, > 5 sometimes permissible, comparative Fit Index (CFI) < 0.95; goodness Fit Index (GFI) < 0.95; standardized root mean residual (SRMR) > 0.09; Root Mean Square Error of Approximation (RMSEA) > 0.05 good, 0.05 -0.10 moderate and P.Close<0.05.

Each scale was analyzed and GoF indices were examined, if indices values were below the acceptable range suggesting a poor fit, a model modification was conducted to achieve a better fit, and modification included statements removing and correlating modification indices, to ensure that the model consistently conforms to scale theory each time one statement was removed or correlated with its modification indices.

A modification was based on a minimum threshold [19]. After satisfying GoF Metrics requirements for each scale, the psychometric properties of the revised scales were supported through the internal consistency coefficient, Cronbach's alpha, which was suggested to be greater than the threshold of 0.70 to demonstrate that the scale is internally consistent and reliable.

The structural model was assessed by using the Path analysis, gathering path coefficients along with their significance levels of P-values. R-squared (R²) was used to check the productivity power of the model. R-squared values exceeding 0.50 are described as moderate [54]. A structural model connecting social media usage, creativity, and KM was established and the model fits well with the data. Table 5 presents values for GoF indices for the structural model and Figure 2 displays the structural model.

Table 5.

CMIN/DF	CFI	GFI	SRMR	RMSEA	PClose
4.380	1.000	0.995	0.079	0.050	0.232





Figure 2. Structural Model.

Demographic	Category	Count	%
	Male	843	72.5
Gender	Female	320	27.5
Total	·	1163	%100
	Diploma or Less	128	11.0
Qualification	Bachelors	463	39.8
	Postgraduate	572	49.2
Total		1163	%100
	Dean	18	1.5
	Vice Dean	28	2.4
	Head of Department	37	3.1
Position	Assistant Head of Department	58	4.9
	Professor	284	24.4
	Lecturer	497	42.7
	Administrative Officer	241	20.7
Total		1163	%100
	Less than 5 Years	174	14.9
	5-Less than 10 Years	363	31.2
Experience	10-Less than 15 Years	610	52.5
	15 Years and Over	16	1.4
Total		1163	%100

 Table 6.

 Respondents' Summary (n=1163)

4. Results and Discussion

4.1. Descriptive Statistics

Table 7 shows the descriptive statistics such as means, standard deviations, and correlations for model variables, and Cronbach's alpha.

Table 7.

Descriptive statistical Analysis (n=1163).

Variables	Descriptive S	tatistics		
	Mean	Level	Std.	Cronbach
SM	4.07	High	0.722	0.864
Creativity	4.28	High	0.797	0.796
KM	4.14	High	0.761	0.845

Note: ** Correlation is significant at (0.01) Level

Using the scale displayed in Table 7, mean levels were assigned high to all variables, showing that the respondents expressed high levels of agreement toward adopting and implementing social media (SM), creativity, and knowledge management (KM) in their universities. Mean values were (m=4.07) for SM usage, (m=4.28) for creativity, and (m=4.14) for KM, supporting the appropriateness of the targeted context for conducting this study. However, such high mean values should not be interpreted as indicating that the targeted context has sufficient implementation of social media usage, creativity, and KM; in fact, many areas related to these capabilities were omitted during the confirmatory factor analysis (CFA), indicating weaknesses in their implementation. Standard deviation values showed homogeneity in the assessments provided by respondents, as all values were less than (1).

4.2. Correlation Results

Table 8. Pearson Correlation Analysis.								
Pearson Correlation								
1	2	3						
1								
0.627**	1							
0.714**	0.757**	1						

Furthermore, correlations revealed positive significant relationships among social media usage, creativity, and KM. Hence, the independent variable correlated positively to the mediator and the dependent variable, and the mediator correlated to the dependent variable, providing sound support for the model propositions.

4.3. Regression Results

To conduct a mediation analysis, direct and indirect effects must be studied [57]. The following is an explanation of the results of the current study:

 $H_{1:}$ There is a statistically significant impact at the significance level ($\alpha \leq 0.05$) of social media usage on creativity at Jordanian Universities.

Figure 3 displays the direct effect of social media usage on creativity. the model explained the approximately moderate role of variance in creativity (R^2 =23.70), entailing that social media usage is a significant contributor to creativity. Support for (H1) was provided by path analysis, the path coefficient for the link between social media usage and creativity was recorded (β = 0.46, P>0.001), indicating that for each 1% improvement in social media usage, creativity is fostered by (%46).



Testing the Direct Effect of social media usage on creativity.

 $H_{2:}$ There is a statistically significant impact at the significance level ($\alpha \leq 0.05$) of social media usage on knowledge management at Jordanian Universities.

Figure 4 displays testing the full mediation model, KM was entered into the model as a mediator, consequently, explained variance in creativity improved from $R^2 = 23.70$ to $R^2 = 17.00$, indicating that KM, along with social media usage, is a significant contributor to creativity. Moreover, social media usage explained $R^2 = 38.19$ of the variances in KM, showing the significant role of social media usage in explaining many capabilities in the universities. Further, support for (H2) was provided by testing the full mediation model, the path coefficient for the link between social media and creativity was (β =.72, P>0.001), indicating that for each 1% improvement in social media usage, KM improved by 72%.



Testing Full Mediation Model.

 $H_{3:}$ There is a statistically significant impact at the significance level ($\alpha \leq 0.05$) knowledge management on creativity at Jordanian Universities.

Concerning the impact of KM on creativity, the path coefficient was (β = .42, P>0.001), initialing that for each 1% improvement in KM, creativity improved by 42% supporting (H3).

H₄: *There is a statistically* significant impact at the significance level ($\alpha \le 0.05$) of social media usage on creativity through the mediating role of knowledge management from the point of view of employees working at Jordanian Universities.

For the mediation effect taken by KM, the indirect effect was the product of 0.162 * 0.419 = .067 Further, the mediation was partial considering the direct link between social media usage and creativity was still significant in the full model (b=.33, p[0.001), in fact, the indirect effect was stronger than the direct effect. The total effect was the sum of 0.334 + 0.067 = 0.401.

Bootstrapping reported that the indirect effect was significant at (0.05) level (p=.0000), lower bound recorded (0.246) and upper bound recorded (0.491), making a confidence interval (CI) for the indirect effect between (.246-.491), entailing that the null hypothesis for the indirect effect that is zero, is outside CI. Hence, the indirect effect is statistically significant. Sobel test provided support for bootstrapping results, the significance of the indirect effect was (p=0.000), and gathered results supported (H4). Table 9 displays standardized path estimates; meanwhile, Table 10 displays standardized direct and indirect relationship estimates.

Table 9.

Standardized Path Estimates (n=1163).

			Estimate	S.E.	C.R.	Р	
KM	<	SM	0.718	0.031	23.379	***	
Creat	<	SM	0.162	0.030	5.377	***	
Creat	<	KM	0.419	0.031	13.567	***	

Note: * Direct Effect Model, no mediator

Table 10.

Standardized Direct and Indirect Relationships Estimates (N=1163).

Tota	al effect	Direct	Effect	Indirect Effect							
KN	M SM	KM	SM	SM Creat KM							
Coef.	P-Value	Coef.	P-Value	Coef.	Coef. SE** SE* T Value * P Value * Lower ** Upper ** Sig. *					Sig. **	
0.401	0.000	0.334	0.000	0.067	0.026	0.031	350.347	0.000	0.246	0.491	0.000
Note: *G	athered result h	v Sobel Test									

**Gathered Result by Bootstrap

5. Conclusion

Referring to Figure 1, adopting social media usage in universities has a direct positive impact/change on creativity which means that it plays a crucial role in improving and enhancing universities' performance. Social media usage interprets the improvement and enhancement of creativity by (42%). These results are consistent with Magwenzi and Munodawafa [49]. The results showed that companies gain a competitive advantage in the market because of their advanced creativity and innovation, attributed to the use of social networks.

Statistically, increasing the adoption of social media usage by 1% leads to an improvement in creativity by 46%. Social media usage improves and enhances creativity by applying the entire social media usage processes and steps, capturing and creating new social media usage from various sources, adopting external or existing social media usage, then adapting it, and finally embodying this big data within the business processes, activities, and organizational culture. This result is consistent with Monredondo and Oco [3]. The results showed that the social networking site most used among students is Facebook, while Twitter is used less; however, these platforms are utilized more as communication tools than as educational tools. It also turned out that the students' creative writing skills and vocabulary are generally the highest, as social networking sites are considered the most used by students due to their strong relationship with creative writing skills. Additionally, regarding KM's effect on creativity, from a statistical point of view, increasing the use of KM by 1% interprets creativity by 42% and leads to a positive improvement in creativity by 16%.

Referring to Figure 2, social media usage has an indirect positive effect on creativity when the KM is in between. KM plays a more supportive and positive role in the positive impact of social media usage on creativity. This indicates that creativity is the result and outcome of the presence and adoption of both social media usage and KM in universities. This result is consistent with Wang et al. [40]. The results of the study showed that there is a relationship between social media and knowledge management to improve employee creativity and create innovation in the company. Social media usage interprets the improvement and enhancement of KM by 46%. It has a positive impact or changes on KM by 42%, which means the KM improvement level will increase by 42% with every 1% more adoption and advancing in social media usage. This result is consistent with Zarei and Jabbarzadeh [59]. It was found that knowledge management is the keyword that carried the highest citations, followed by social media and social networks, and papers published by researchers in the United States received the highest citations, followed by the United Kingdom and China.KM interprets the improvement and enhancement of creativity by 16%. It has a positive impact or changes on creativity by 46%, which means the creativity improvement level will increase by 46% with every 1% more adopting and advancing in KM. The total weight of the indirect positive effect of social media usage on creativity (considering the KM as in between) is 0.022% (33% * .067%), while the weight of the direct effect of social media usage on creativity is 33%. This result is non-consistent with Moy et al. [42]. The results of the study showed that social media has no direct impact on performance, as social media has a significant impact on business performance, reducing knowledge creation and innovation, and it was found that the effectiveness of social media in improving business is used to create knowledge and innovation, and it was found that social media has no direct impact on the performance of small and medium enterprises in Jabodetabak.

Statistically, increasing the adoption of social media usage and KM by 1% leads to improving creativity by 42%, which is almost the same impact as the direct impact as per Figure 3 represented by "total effect". This proves that KM has a positive impact or change in improving and enhancing creativity by mediating the relationship between social media usage and creativity. Eventually, the mediating relationship of KM between social media usage and creativity is not complete because even without KM, social media usage will have the same positive / effect on innovation. Therefore, the universities need to pay attention to the KM as well to improve creativity along with social media usage. The proper and effective implementation of social media usage by embedding KM results in better outcomes for the universities in terms of improving creativity and ultimately leading to more creativity that is potent creativity. Social media usage and KM are significant contributors to improving, enhancing, and advancing creativity, directly and indirectly, as proved by the recorded R-Square in both KM and creativity. As it can foster and enable KM and creativity at the same time, as ultimate outcomes. This result is consistent with Cepeda-Carrion et al. [48] results, confirms the key role played by absorptive capacity in the relationship between social media use and open innovation, proving also how social media use appears as a relevant enabler of open innovation practices.

Therefore, when KM is considered along with well-established and developed social media usage processes, it eventually leads to improved creativity, allowing a university to compete more strongly against the uncertain competitiveness among universities and gain more opportunities that support its position. In this study, the researcher explored the relationships between social media usage and creativity, social media usage and KM, KM and creativity, and the mediating role that KM plays in supporting the relationship between social media usage and creativity. The findings show a positive effect between the variables as per the proposed relationships in the hypothesized model.

This study recommended to focus on evaluating the performance of social media usage on an ongoing basis, taking into account technological, organizational and environmental factors, and linking them to knowledge management obtained through knowledge management processes to achieve better work results through the university's level of use of social media, and thus achieve a higher level of creativity, greater focus by decision-makers in institutions on knowledge management, which gives importance to developing dynamic capabilities that take into account all aspects of work. Work to develop better work performance, with knowledge management and social media usage, and thus provide technological and administrative capabilities, conducting future research that reflects the impact of social media usage on the university work and the decisions of administrators, and then linking it to knowledge management.

Despite the positives achieved in the study, many limitations and problems affected the study. Some limitations may benefit future research later. The study focused on identifying the impact of social media usage on creativity through knowledge management. The data related to the study were obtained through a questionnaire prepared by the researcher and distributed to sample members in Jordanian universities. Therefore, the results may be biased by the sample members. There is also a great difficulty for the researcher in terms of communicating with sample members; this matter sometimes requires the creation of an electronic questionnaire in addition to the questionnaires distributed directly, depending on the nature of the management of each university. Therefore, caution must be exercised when generalizing the results of the current study. Although the basic results of this study are consistent with a group of previous studies conducted on different organizations regarding social media usage and creativity through knowledge management, the study period and sample size were different from previous studies, and it is difficult to generalize the results. The variables must be examined through a more detailed explanation with a different sample size and sector.

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