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RESEARCH ARTICLE

The Impact of Big Data Analytics Capabilities on Social Customer Relationship Management in Jordanian Tourism Offices

Diana Abdul Razzaq Khrisat*

The World Islamic Science & Education University, Amman, Jordan

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***Corresponding Author:**

Diana.Khressat@wise.edu.jo

ABSTRACT

The aim of the study is to assess the effect of big data analytics within all domains (Technology Capability, Marketing Capability, Management Capability) on social customer relationships management (Monitor social media activity, Social Media analytics, Manage Social Networks Camping) at tourism offices in Jordan. The researcher , further; employees from senior and middle management were included in the study sample, noting that the tool used to collect the primary data was the questionnaire and the responses were analyzed (104) using the statistical analysis program (SPSS), the study concluded that, there is a significant statistical effect at a substantial level (α≤0.05) of big data analysis capabilities in social customer relationship management in Jordanian tourist offices, while the relative importance of big data analysis capabilities was high and social customer relationship management was in an average level; the study recommended the need to develop big data analysis capabilities because they are very important in analyzing customer data and knowing the developments of the external environment, and the use of social customer relationship management must be enhanced and the most essential tools of analysis and managing social networks camping's.

INTRODUCTION

The rise of the internet (0.2) and social media, along with their incorporation into customer relationships management, a new model called Social CRM has emerged; this model illustrates and explains a business philosophy and strategy that is supported by a technology platform, social business rules, processes, and social features that foster interaction with customers through collaborative dialogue to provide unequivocal value and a transparent business environment; in other words, everything is done in collaboration with the client and customer (Kupper et.al, 2014).

This means that CRM is one of the most critical operations to communicate with customers to understand their preferences and desires and meet their needs; competition between organizations has become fierce, and it is necessary to obtain more data about customers; further, social media has become an essential element in customer relationship management, it is not only a means of social communication but has also become one of the most widely used tools in the business world. Organizations have become heavily reliant on and use social customer relationship management because of its great importance in communicating with customers and obtaining their data, which continuously impacts the communication process. Bartinca & Treleavem (2015) confirmed that social media data is the most extensive, richest, and most dynamic evidence base for human behavior, offering opportunities to understand individuals, groups, and society. New ways must be found to collect, integrate, and automatically analyze this wealth of data. Rothore et al. (2017) clarified that social media had become an essential element in the Internet environment as companies use social media platforms in all possible functions and to access massive knowledge about Customers. Big data analytics tools were used to understand customers better and achieve higher competitiveness in local and global markets. Although big data can be considered an important decision-making tool, the presence of big data leads to better marketing; it is essential to analyze data in real-time since it gains considerable importance (Ducange et.al, 2018). the size of data grew dramatically with the advent of the web and the advent of the web (0.2), so it was

necessary to use appropriate technology and strategy to analyze the vast amount of data and take advantage of it, that the capabilities of big data analysis is large and complex and cannot stop at a certain point. Further,) Mikalef et al., 2019) confirmed that out present day is "Data era"; as data is being generated across all industries and public bodies at an unprecedented rate, as organizations strive to leverage big data analytics to create value. Big data analytics has been hailed as the next frontier for innovation, competition, and productivity.

Tourism offices seek to provide the best services and communicate with customers effectively across all their services, giving them a higher competitive advantage. By analyzing big data, they can manage their relationships with customers and communicate uniquely with them.

Significance of the study

Tourism offices in Jordan have a unique position and must provide the best and highest quality services in a highly competitive environment. This study will support tourism offices in Jordan in making better decisions and developing business operations through social customer relationship management and "big data analytics capabilities".

Goal & Statement of purpose

The purpose of the study is to investigate the effect of big data analytics capabilities within their domains "Technology capability, marketing capability, management capability" on Customer relationship management within their domains "Monitoring social media, Social media analytics, and Manage social networks campings" in Jordanian Tourism offices.

The problem of the study is also represented in social customer relationship management; as social customer relationship management has become a distinctive tool in the business world. Tourism offices must work to reach a large segment of customers and communicate continuously and in a targeted manner. Tourism offices are considered distinguished companies regionally and seek to be global. They need to survive and communicate with the external environment. Thus, managing social customer relations is regarded as one of the most critical operations that tourism offices seek to increase market share, increase profitability, maintain their customers, and acquire a new segment anywhere in the world; it was necessary to rely on big data analytics capabilities so that companies can always know about developments in the external environment as well as local, regional and global markets, it also contributes to predicting customer requirements and needs and identifying potential market opportunities to prepare companies for entry, which ultimately adds value to the tourism office sector.

Study hypotheses (see fig.1)

"Main Hypothesis: Ho 1: There is no significant statistical effect at a significance level ($\alpha \leq 0.05$) of big data analytics capabilities within all domains Technology capability, marketing capability, management capability" on social customer relationship management (SCM) in Jordanian tourism offices". "The following sub-hypothesis stem from the main hypothesis":

"Ho 1.1: There is no significant statistical effect at a significance level ($\alpha \leq 0.05$) of big data analytics capabilities within all domains (Technology capability, marketing capability, management capability" on monitoring social media activity in Jordanian tourism offices".

"Ho1.2: There is no significant statistical effect at a significance level ($\alpha \leq 0.05$) of big data analytics capabilities within all domains "Technology capability, marketing capability, management capability" on social media analytics in Jordanian tourism offices".

"Ho1.3: There is no significant statistical effect at a significance level ($\alpha \leq 0.05$) of big data analytics capabilities within all domains "Technology capability, marketing capability, management capability" Managing social networks campings in Jordanian tourism offices".

Study Model

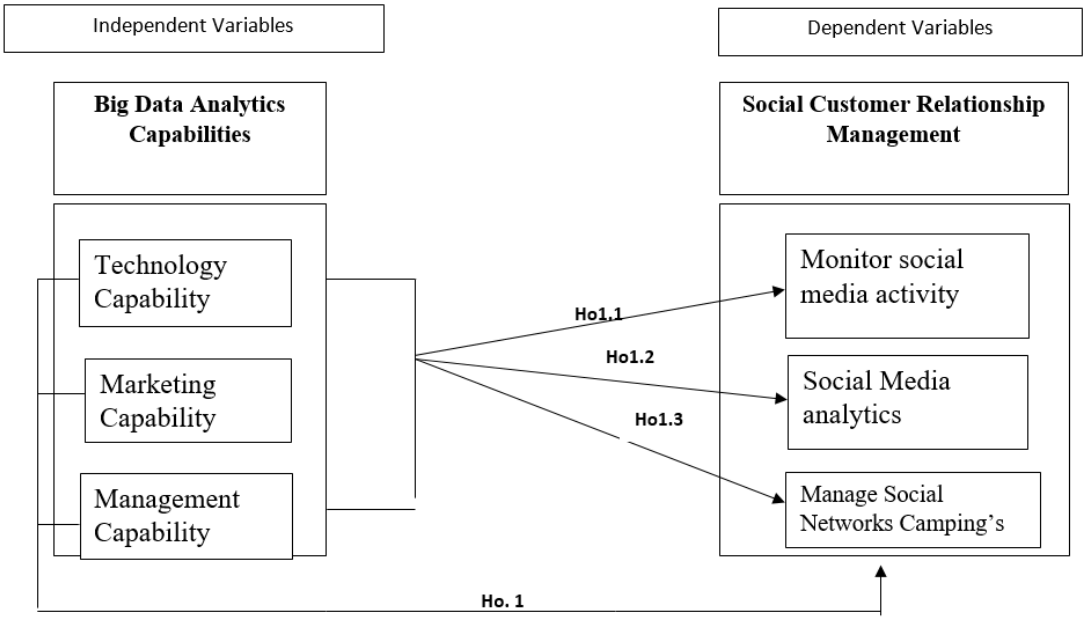

Figure 1: Study model

Sources: developed by the author

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Aburub et. al, (2025) studied the influence of big data analytic capabilities and their arenas (technology capability, management capability, and employee capability resources) on the decision-making process of telecommunication companies in Jordan. The study results went on to conclude that big data analytics capabilities have a great influence on the decision-making process in the telecommunications industry in Jordan. The study further proposed that maintaining a high level of big data analytics execution is necessary for improving the decision-making process since that will help organizations reveal insights hidden in big data.

Elshaer et al. (2025) attempted to study the effect of adopting social customer relationship management (CRM) on improving customer satisfaction as well as marketing efficiency in the hotel industry. Findings of the study indicated that CRM has a direct positive influence on both customer satisfaction and market effectiveness by enhancing the use of data for competitive advantage. The study authenticated that social media improves hotel performance and also enhances responding to customer requirements in real-time.

De Muylder's (2025) tested a model for the adoption and application of CRM at micro and small enterprise levels in Brazil. Since social media is considered as a source for monitoring and also an analytic tool to generate business content, it is innovative and required for the survival of micro and small enterprises. The study pointed out that customer information processing and its impact on social CRM usage are paramount, emphasizing social interaction importance, engagement capacity, and shared value creation in small and micro enterprises. This will enable managers to capitalize on the link between "the capacity to engage customers through social media" and "social influence" to fine-tune their social media strategies for higher customer engagement.

Malki et al. (2024) investigated the influence of CRM on customer satisfaction and loyalty. Results revealed that CRM in its domains (CRM, social media, technology use) substantially had a direct positive influence on satisfaction and loyalty. And social media use also facilitates customer service. Participants indicated that there should be more emphasis on the use of CRM for marketing on social networking sites.

Garcia (2023) investigated the impact of "big data analytics capabilities" within its domain (data, technology, skills, and culture) on business innovation. The study is leading to 91 SMEs which were located in Bogota, Colombia. The researchers argue that big data analytics capabilities are critical and scaling capabilities for business innovation by referring to the ability of an organization to

improve, evolve, grow, and diversify into new markets. Data, technology, culture and skills (+ the balance between all of them) also featured up there. The research suggested the introduction of modern technological tools as a means of generating development and modernization.

Waqas & Tan (2023). studies the effect of big data analytics capabilities; such as technology capabilities on green production and sustainable risk management performance: the moderating role of corporate reputation and supply chain innovation. sampling of data primary data was gathered from Pakistani factories using a detailed survey technique. the research concluded that it capability and environmental attitude have a positive effect on green production. moreover, green production enhances competitive advantage, which will have a positive effect on driving performance. the research findings indicate that the use of technology in the factories in Pakistan increased green products and sustainable output.

Deraz and Abdel-Aty (2022) analyzed the adoption of big data analytics in relation to its components (infrastructure capabilities, human skilled personnel, managerial skillset, and data-sensitive culture) in the context of Egyptian hotels. The study indicated that all dimensions were influential big data analytics capabilities, with infrastructure capabilities having more impact than managerial and human resource capabilities. The study suggested improving infrastructure capabilities through the creation of a comprehensive information communication technology framework. It also suggested improving Management capabilities through the formulation of an information system strategy compatible with the hotel's mission and objectives while empowering managers.

Big data analytics capabilities

Big data analytics capabilities: Capabilities confer an everlasting competitive edge to an organization as they cannot be imitated, transferred or possessed (Dutta et.al, 1999). This explains as well the reason behind capabilities being defined by Nath et.al, (2010) as "mobilized complex bundle of skills and knowledge", which help a firm coordinate activities and harness resources. Furthermore, data is also described as the lifeblood of decision, meaning that decision cannot be made at the right time if valuable data is not accessible when needed (Vassakis et.al, 2017).

Deriving from diverse, intricate, and colossal datasets necessitating specialized analytical tools and techniques for rapid capturing, processing, and eliciting insights, both definition and description of big data has been provided by (Mills, 2019,10). Nowadays, big data, while still expanding, has practically become available to businesses in the forms of social media, marketing portals, search engines, and novel applications as they are continuously produced and provided as well. Analyzing such data enables performance improvement and real-time decision making (Jha et.al, 2020). Furthermore, the processes of collecting, storing, organizing, retrieving, and analyzing big data greatly help in adding value to the world economy, improving productivity, and enhancing the competitiveness of companies (Wamba et.al, 2015).

Analysis of big data is considered to be the most important link in transforming general knowledge in data into specific knowledge using big data analytics technology is that it allows companies to obtain the specific knowledge resources needed to innovate products more quickly, transform businesses into competitive advantages, and help improve business performance. Thus, leading companies can capture product development trends in a turbulent environment, acquire technical knowledge, develop new products, and successfully achieve product innovation (Ji et al., 2024).

Organizations had begun relying on big data, and concentrating dramatically on administrating internal and external Data; for seizing new opportunities to maintain its competitive advantage, it considers big data generated by customers to be the next frontier for innovation, competition, and productivity, through benefiting from the mass data generated by customers (Ciampi et al., 2022).

Big data analytics involves the ability to process and analyze data in order to extract insights. This depends on companies having a combination of human and tangible resources to develop big data analytics, as well as strategies, tools, and processes for dealing with large amounts of diverse, structured, and unstructured data in order to produce results that are understandable to humans. (Al Morsy et al., 2024).

The researcher adopted the domains of big data analytics capabilities as shown in the study model as follows:

Technology capability

Businesses that focus on their technological competencies possess the potential to dedicate capital into resources which enables undertaking R&D activities such as product invention, knowledge base creation, and preparation of technical personnel (Zhou & Wu, 2010). this indicates, management of technology within the firm is needed through, realization, execution, sustenance, and enhancement of certain distinct technical relationships (Ahmad et.al, 2014). Where, technology capability is regarded as a primary asset and exceptional strength which permits to construct enduring value and serves strategically to avail competitive edge (Al-Mamary et.al, 2022). technological capabilities pertain to the ability of a firm to develop new competencies in products and services through strategic alignment with innovative processes. These capabilities encompass the knowledge and abilities to acquire, utilize, assimilate, adapt, improve and create new technologies (Heredia et.al, 2022). Technological capabilities focus on tangible resources for the establishment of systems for storing, processing, and analyzing data (Pathak et.al, 2023).Technological capabilities can be defined as the tools which allow collecting Big Data that are unstructured in the real time, information technology tools help collect and integrate data from disparate data sources to improve interoperability and accessibility, which is crucial for making coherent, informed, and timely decisions across the organization (Vesterinen, et.al, 2025).

Marketing Capability

Generally, organizations possess strong marketing capabilities that signify organizational excellence in recognizing customer opportunities and distinguishing the factors associated with consumer choice behavior to position the brand with respect to competing brands (Dutta et.al, 1999). in addition, marketing provides unique value for the customers and fulfills needs, and it encompasses every functional area within an organization that supports activities contributing to the delivery of goods and services (Nath et.al, 2010).Hence, an organization's marketing capabilities density can be established in their potential to clearly distinguish their products and services from their competitors and establishing appropriate brands; furthermore, marketing proficiency emerges out of marketing resources and efficient execution of marketing related activities is paramount for a successful new product development (Weerawardena, 2003). That means marketing capabilities are a complex set of processes that involves combining market knowledge and organizational resources to generate added value with the aim of meeting market-related business needs, allowing companies to provide superior added value and better adapt to changing market conditions. (Santos-Vijande, 2012). marketing capabilities are indicated by applying the resources at hand to perform marketing responsibilities in a manner that reaches called for objectives, and they highlight the processes that allow an organization to frame, develop, communicate, and deliver value through the combination, transformations and deployment of its resource (Morgan et.al, 2018).

Management Capability

Management capability refers to the knowledge, skills, and experience possessed and utilized by individuals in managerial roles. It is considered the most important factor in addressing external and internal threats and opportunities, developing and motivating employees to innovate, and achieving the highest levels of performance (Webber, 2024). Management capability seeks to create, expand, and transform the company's resources into an integrated operational and economic lease. Strategic management scholars have recognized that managerial capability plays a fundamental role in enhancing company performance and creating a competitive advantage (Agyapong et al., 2023). Management capabilities are important in identifying the most effective ways for the firm to allocate resources, it is also is also setting objectives and anticipating deficiencies through planning and control, because, as the organization has to liaise, coordinate and integrate its own data to satisfy customer needs by managing, marketing logistics, controlling costs, finance, human resources (Pathak et.al, 2023). Similarly, management capabilities contribute to setting priorities and forecasting possible future outcomes based on raw data and business intelligence insights, and analytics (Aburub, 2025). Capabilities must find the right balance between efficiency and stability in the company, and at the same time, be prepared to reorganize every time the company needs to change. As internal and external conditions evolve, management must start looking for new ways to reach efficiency and stability again (Pufal, 2014).

Social Customer Relationship Management

Social customer relationship management is used on a wide scale by many companies all over the world to collect customers' data to provide them with the best service; it is an essential tool for the organization, helping to increase customers' loyalty and satisfaction; this means; establishing a relationship with the customer (Rostamzadeh, 2024). Moreover, social media has become an essential part of daily and social life, as it is considered a tool for communication and information exchange between customers and companies using multiple communication technologies, which positively impacts broader access, improving knowledge, participation, and access to global markets. It has also enabled companies and customers to communicate effectively, allowing companies to understand customer needs and respond proactively (Mohammed et, al. 2024). this explains that social customer relationship management is a business strategy that leads to customer engagement through social media to build customer trust and fostering brand loyalty. This innovation enables companies to concentrate their strategies on customers, engage and attract them through user-generated content, improve their interaction via online social platforms, and maintain their loyalty by establishing new connections with other customers (Malki et.al, 2024). Social Customer Relationship Management creates two-way interaction between the parties and gives customers ownership of the conversation with the company, which helps the company to be open with the customer and become visible to them, and gives them the space and information to make smart decisions for themselves about how to interact with the company by following this strategy, which allows the company to learn from its customers that it is given more freedom in interacting with the company and other customers. (Faase, et.al, 2011). The main difference between traditional CRM and social CRM can be seen in the way they work with customer data. Social CRM, through various social media platforms, allows customers to engage in partnership with suppliers and influences actively and contributes to improving and adapting their products according to their desires and requirements (Kubina & Lendel, 2015). The researcher adopted the domains of CRM as shown in the model of the study as follows:

Monitor social media activity: Monitoring is findings of what is being expressed through social media about the products and services of the company; the company can use the results of monitoring to find the way to interfere in social media means (Zhang & Vos, 2014), this means; it is used to find information about individuals and competitors, and it is a continuous and systematic search on social media to obtain updated information in the news or live events (Zachlod et. al, 2022). It is the systematic search process for the content on social media sites that connected to the company; where; the data collected through data analysis is presented in order to make business decisions based on the results (Zachlod & Peter, 2021). social media has also become windows for companies to monitor and analyze customers and identify innovation opportunities. The ease of access and abundance of social media data provide organizations with excellent prospects for understanding consumer needs in different contexts and deriving ideas to improve organizational strategy (Li et.al, 2023). The main goal of social media monitoring is to make sense of the vast amount of information, see the big picture of the common phenomena being monitored, and shed light on stakeholders' perceptions (Ruggiero & Vos, 2014).

Social media analytics

Analysis of social media sites indicates the practice of collecting data doe those sites and data analysis to help decision makers to encounter certain problems, and it is a fast mechanism to gain information (Lee, 2018). A subset of business intelligence data from social media to meaningful information for business purposes; social media analytics can be applied to understand user feelings about a company or product (Zachlod et.al, 2022). the use of social media, which has resulted in user data, had to be analyzed for use in various activities such as research, collection, filtering, summarization, identification, visualization, analysis, and generating insights from social media data, making it easier to analyze conversations and user impacts (Rathore et.al, 2017).

The tools used to analyze data generated for social media sites (Batrinca & Treleaven, 2025):

1) Analytics dashboards, which are tools that do not use programming languages and allow access to raw data.

2) Comprehensive data analysis requires tools to combine analytics from multiple social media channels and data sets from other sources.

3) Analysts need data visualization tools to convert data into information that can be extracted schematically in order to communicate information clearly and effectively through graphical means.

Social media analytics serve many purposes, including facilitating conversations and interactions between online communities, extracting functional patterns, and providing intelligence to serve organizations (Zeng, 2010). that is, the continuously increasing use of social media in daily life is considered a vital data resource, and this data must be analyzed (Brooker et.al, 2016).

Manage social networks campings

The use of social media to reach specific and targeted users so that the organization applies it to inform them of its products or services to motivate, persuade, or influence them to achieve communication goals (Raudeliuniene et.al, 2018). There are different factors affecting the spread of content characteristics, those are; The type of content and the level of engagement through reactions and comments, and the mechanism for managing campaigns on social media sites also depend on several factors, including the ability to control marketing factors. That is, the system must store the necessary data to support brands more, and work to understand the market, especially the target customers. It is very important to identify influencers who can influence their audience to help make an appropriate decision (Huynh, et.al, 2021). It is necessary to consider the duration and costs of the advertising campaign, the strategies for selecting this advertising campaign, and the factors that affect user engagement when disseminating information (Karczmarczyk et.al, 2018). Social media is one of the most recently embraced and active methods in electronic marketing and promotion operations, allowing companies to reach millions of users easily. This type of campaign management is considered the most effective, as it will enable monitoring and observing the behaviors and desires of customers, users, and consumers by listening to their concerns, discussing their needs, identifying their desires, and offering a product that meets their interests. (Sabbagh, 2018). (Freeman et al, 2025) confirmed that Social media can be extremely effective in increasing brand awareness, recruiting and motivating participants to take concrete action. It also supports and funds small and medium-sized enterprises (SMEs) and evaluates the success of campaign engagement with influencers and followers.

METHODOLOGY

Nature of the Study

The current study clarified and explained the impact of big data analytics on social CRM in Jordanian Tourism offices. It is an unplanned empirical study conducted in the natural environment of the Jordanian tourism offices. The sample was drawn at the same time, so it is cross-sectional, and it relied on the descriptive quantitative approach in terms of mechanisms, procedures, and processes (Al-Najjar et.al, 2020; Sekaran & Bougie, 2016; 53-56).

Study population and sample

The study population consisted of employees working in upper and middle management at licensed Jordanian tourism offices in the capital, Amman, based on the Jordanian Association of Travel and Tourism Agents; the researcher adopted a simple random sampling to select the sample for the study population; the questionnaire was administrated on employees in upper and middle management; (104) valid questionnaires were retrieved for analysis and hypothesis testing using the Statistical Package for the Social Sciences (SPSS).

Tool reliability

Cronbach's alpha was conducted on the study variables to ensure the tool's reliability. Table (1) shows the Cronbach's alpha values for all variables.

Table (1). Cronbach's alpha coefficient values for study domains

Domain	Items No	Alpha Value
Big data analytics capabilities	12	0.960
Technology capability	4	0.910
Marketing capability	4	0.903
Management capability	4	0.921
Social CRM	12	0.961
Monitoring social media Activity	4	0.903
Social Media Analytics	4	0.941
Manage Social media network campaigns	4	0.889

As noted in Table (1), all internal consistency coefficients for the main and sub-variables achieved values greater than (0.70), suggesting that all study's items and internal consistency for items of the study variables and high reliability (Al-Najjar et.al, 2020, 151).

Demographic & Functional Characteristics Description

Table (2) shows demographic & Functional characteristics of the sample

Table (2). "Sample distribution according to (gender, age and scientific qualification)"

Variable	Frequency	Percentage
Gender		
Male	74	71.2
Female	30	28.8
Age		
Less than30	25	24.0
30-less than40	51	49.0
40-less than 50	21	20.2
50+	7	6.7
Scientific Qualification		
Diploma	18	17.3
Undergraduate	80	76.9
Graduate	6	5.8

Source: Designed by the researcher according to SPSS

Functional characteristics discerption

Table (3) shows the Functional characteristics of the sample

Table (3). Sample distribution according to (years of experience and post level)

Variable	Frequency	Percentage
Years of experience		
Less than five y	30	28.8
5-less than 10y	33	31.7
15y+	28	26.9
Post Level		
Senior management	15	14.4
Middle management	89	85.6

Source: Designed by the researcher according to SPSS

"The relative importance of the variables: The relative importance was adopted as: 1) less than (2.34) is low, 2.34 - less than (3.67) is average, and (3.67 - 5) is high".

Table (3). Relative importance of big data analytics capabilities variables

Variable	M	SD	Rank	Relative Importance
Technology capability	3.71	0.847	2	High
Marketing capability	3.77	0.960	1	High
Management capability	3.62	0.922	3	Average
Big data analytics capabilities	3.70			High

Table (3) indicates that the significance of big data analysis capabilities was in an average level

Table (4). Relative importance of Social CRM variables

Variable	M	SD	Rank	Relative Importance
Monitoring social media Activity	3.44	0.902	3	Average
Social Media Analytics	3.62	0.949	2	Average
Manage Social media network campaigns	3.89	0.870	1	High
Social CRM	3.65			Average

Table (4) shows that the relative importance of Social CRM variables was average

Testing study hypotheses

"Ho1: "There is no significant statistical effect at a significance level (α≤0.05) of big data analytics capabilities within all domains Technology capability, marketing capability, management capability" on Social Customer Relationship Management (SCM) in Jordanian tourism offices".

The first "main hypothesis was analyzed using standard multiple linear regression":

Table (5). Model Summary and ANOVA of the main hypothesis

Model	Model Summary [b]		ANOVA		
	R	R^2	F	DF	Sig F
1	.896[a]	.803	135.662	3	0.000[a]

a. Predictor: technological capabilities, marketing capabilities, and Management capabilities.

b. Dependent variable: Social customer relationship management

According to the model summary in Table (5), the regression's significance is confirmed by the coefficient of determination value (R^2=.803) at three degrees of freedom and the value of F=135.662 at a significance level (sig=0.000). It shows that Management, marketing, and technology skills collectively accounted for 80.3% of the variation in social-customer relationship management.

Table (6). Coefficient Analysis findings

	Model	Coefficient [a]		
		β	T	Sig T
1	Technology capability	.396	4.848	.000
	Marketing capability	.191	2.037	.044
	Management capabilities	.368	4.108	.000

Dependent Variable: CRM

As shown in Table (6), all the beta values for the coefficients and at different T levels were significant for technological capabilities and Management capabilities, totaling (0.000); meanwhile, they were not substantial for marketing capabilities, totaling (.044). Since technological capabilities and Management capabilities are significant, we do not accept the main null hypothesis and accept the alternative hypothesis, which states: There is an essential statistical effect at the significance level (α≤0.05) for big data analytics capabilities within all domains (technology capability, marketing capability, management capability) in managing social customer relations within all domains (monitoring social media activity, social media analysis, managing social networks campings) in Jordanian tourism offices.

"Ho 1.1: There is no significant statistical effect at a significance level (α≤0.05) of big data analytics capabilities within all domains (Technology capability, marketing capability, management capability" on monitoring social media activity in Jordanian tourism offices".

Table (7). Model Summary, ANOVA and coefficients for the first sub-hypothesis

Model Summary		ANOVA			Coefficients[b]		
r	r^2	F	Df	Sig F	β	t	Sig t
.833[a]	.694	231.287	1	.000[a]	.833	15.208	.000

a. Predictor: technological capabilities, marketing capabilities, and Management capabilities.

b. Dependent variable: Social customer relationship management

Table (7) and the model summary make it clear that there is a strong link between social media monitoring and big data analytical skills, as indicated by the value of r=.833. Additionally, it seems that the substantial data analysis capabilities variable's coefficient of determination (r^2=.694) was attained. This indicates that 69.4% of significant data analysis capabilities were explained. The value of F=231.287)) was determined to be at a significant level (Sig=0.000) and at a degree of freedom (1) based on the variance in social media monitoring and the variance table analysis. This validates the significance of the regression.

The coefficient table also demonstrated that the values of t=15.208 and β=.833 are at a significant level (sig=0.000). This validates the coefficient's importance. We reject the first sub-nihilistic hypothesis as a result. At a significant level (α≤0.05), the combined dimensions of big data analysis capabilities (technological, marketing, and management) have a statistically significant impact on social media monitoring at Jordanian tourism offices, according to the alternative sub-hypothesis.

Ho1.2: "There is no significant statistical effect at a significance level (α≤0.05) of big data analytics capabilities within all domains "Technology capability, marketing capability, management capability" on social media analytics in Jordanian tourism offices".

Table (8). Model Summary, ANOVA and Coefficients for the second sub-hypothesis

Model Summary		**ANOVA**			**Coefficients[b]**		
R	r^2	F	Df	Sig F	β	t\	Sig t
.855[a]	.731	277.366	1	.000[a]	.855	16.654	.000

a. Predictor: technological capabilities, marketing capabilities, and Management capabilities.

b. Dependent variable: Social customer relationship management

Table (8) and the model summary make it evident that there is a strong correlation between social media analyses and big data analysis skills, as indicated by the value of r=.855. Additionally, it seems that the substantial data analysis capabilities variable's coefficient of determination (r^2=.731) was attained. This indicates that significant data analysis skills were accounted for by (73.1%) The analysis of variance table and variance in social media analyses revealed that the value of F=277.366) is at a degree of freedom (1) and at a significant level (sig=0.000), confirming the significance of the regression.

It The coefficient table also demonstrated that the values of t=16.654 and β=.855 are at a significant level (sig=0.000). This validates the coefficient's importance. We reject the second sub-nihilistic hypothesis as a result. We agree with the alternative sub-hypothesis, which says: "The combined dimensions of big data analysis capabilities (technological, marketing, and Management) in social media analytics in Jordanian tourist offices have a statistically significant effect at a significant level (α≤0.05)."

Ho1.3: There is no significant statistical effect at a significance level (α≤0.05) of big data analytics capabilities within all domains "Technology capability, marketing capability, management capability" Managing social networks campings in Jordanian tourism offices".

Table (9). Model Summary, ANOVA and coefficients for the third sub-hypothesis

Model Summary		**ANOVA**			**Coefficients[b]**		
R	r^2	F	Df	Sig F	β	t	Sig t
.835[a]	.697	234.945	1	.000[a]	.835	15.328	.000

a. Predictor: technological capabilities, marketing capabilities, and Management capabilities

b. Dependent variable: Social customer relationship management

It is clear from Table (10) and from the model summary that the value of (r=.835) means that there is a very high correlation between the capabilities of analyzing big data and managing social media campaigns. It is also clear that the coefficient of determination for the variable of capabilities of analyzing big data reached (r^2=.697), which means that the capabilities of analyzing big data explained (69.7%) of the variance in managing social media campaigns. From the analysis of the

variance table, it is clear that the value of F=234.945 at a significance level of (Sig=0.000) and at a degree of freedom of (1) confirms the significance of the regression.

The coefficient table also showed that the value of (β=0.835) and the value of (t=15.328) are at a significance level of (Sig=0.000), which confirms the significance of the coefficient. Accordingly, we do not accept the third null hypothesis. We accept the alternative sub-hypothesis, which states that: "There is a statistically significant effect at a significance level of (α≤0.05) for the capabilities of analyzing big data in terms of its combined dimensions (technology capability, marketing capability, management capability) in managing social media campaigns in Jordanian tourism offices."

Findings

The findings of the descriptive analysis showed that the relative importance of big data analytics capabilities totaled a high level with a mean of (3.70); this is an indication that Jordanian tourist offices are interested in obtaining data from various sources and working on analyzing it to provide unique services to their customers, this is consistent with a study (Aburub et.al, 2025) which demonstrated the impact of big data analytics capabilities on the decision-making process. Further, findings showed that the social customer relationship management variable was of average relative importance, with a mean of (3.65); this indicates that Jordanian tourist offices use social media to communicate with customers, as social media is considered one of the most widely used and widespread tools in companies because of its importance. Targeting customers is consistent with the study (De Muylder, 2025), which suggested accepting the social customer relationship management model. First main hypothesis findings showed that there is significant a statistical effect at a significant level (α≤0.05) of big data analysis capabilities in terms of their domains (technology capability, marketing capability, management capability) in managing social customer relationships with their combined domains (monitor social media activity, social media analytics and manage social networks campings) in Jordanian tourist offices, and this is consistent with Deraz and Abdel-Aty study (2022), that shows that all domains of big data affect big data analysis capabilities. Moreover, findings of the descriptive analysis showed that the relative importance of big data analytics capabilities reached a high level with a mean of (3.70), indicating that Jordanian tourism offices are interested in obtaining data from various sources and analyzing it to provide distinguished services to their clients. The first sub-hypothesis findings showed that there is significant statistical effect at a significance level (α≤0.05) of big data analytics capabilities within all domains (technology capability, marketing capability, management capability) on monitoring social media in Jordanian tourism offices, the second sub-hypothesis results showed that there is significant a statistical effect at a significance level (α≤0.05) of big data analysis capabilities within all domains (technology capability, marketing capability, management capability) on social media analysis in Jordanian tourism offices. The results of the third sub-hypothesis also showed that there is a significant statistical effect at the significance level (α≤0.05) of big data analysis capabilities within all (technology capability, marketing capability, management capability) in managing social media campaigns in Jordanian tourism offices; the gender results showed that males had the largest share, reaching (71.2%), indicating that males occupy senior management positions in Jordanian tourism offices. The majority of the age group is (30-less than 40 years), constituting (49.0%), and the highest percentage of holders of a bachelor's degree from a scientific qualification was (80%). Based on the above, the study recommended the necessity of developing big data analysis capabilities because of their importance in their development and sustainability in a local, regional and globally competitive environment in tourist offices in Jordan. The use of social media must also be enhanced because of its importance in managing customer relationships. It is also necessary to hold workshops. Training explains the importance of data acquired from customers and works to analyze it using advanced technology. Finding innovative ways to communicate with customers is essential to gain and develop the most significant local, regional and global market share. It is necessary to continue conducting studies on the variable of social customer relationship management in its domains (Monitor social media activity, Social media analytics and manage social networks campings) in different study communities due to the importance of the variable and companies' reliance on social media for multiple and other actions.

Social customer relationship management is one of the most important tasks for companies; it is essential to understand their preferences, behaviors, and interests so that companies can make appropriate progress and developments in a market that is not only competitive locally but has also

become open to the world, eliminating spatial and temporal boundaries; the emergence of social media has played an important role in identifying the most prominent customer trends and preferences, leading to the emergence of big data. It is essential not to ignore this data and to take advantage of it by analyzing it with artificial intelligence tools and smart software to uncover hidden connections and relationships and understand unstructured data in particular. This supports unstructured decision-making, enhances competitive advantage, and finds solutions to any problems the company may face. The development and use of technological tools to analyze big data has become an urgent need for all companies because the physical world of markets has become a digital world. Furthermore, (Ijomah, et.al, 2024) emphasized that big data analytics is invaluable and can be used to segment customers in detail and target them, as well as help intervene at the right time to retain them. Big data also enhances the effectiveness of loyalty programs by providing insights into customer preferences and behaviors.

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