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Building a Model for E-Interaction Via Facebook Platform "The IN-IMSIU Model for E-Interaction"

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Abstract. This study had two main objectives: a theoretical goal and a practical one. The theoretical aim was to design a model for measuring online interaction on Facebook, while the practical objective focused on assessing how Jordanian users engage with community issues using this model. The proposed model, called the IN-IMSIU Model, comprises two dimensions: the technical interaction mix (organic interaction) and the behavioral interaction mix (non-organic interaction). The technical interaction dimension includes four subcomponents: privacy, language, username, and access method. In contrast, the behavioral interaction dimension encompasses five subcomponents: participation, purpose of interaction, expression of participation, emotions involved, and source of interaction. The model was applied to a sample of active Facebook users in Jordan, which includes approximately 6.45 million users. The results indicated a strong level of interaction among Facebook users, but a moderate level of engagement with community issues. The study found that gender and age significantly influenced technical interaction, while education and age affected behavioral interaction. Finally, the study offers several recommendations for enhancing the proposed model within communication and marketing applications.

Keywords: Digital Dialogue, E-Interaction, Imam University, Jordan Society, Non–Organic Interaction, Organic Interaction, Social Media.

1. INTRODUCTION

The Internet has become a crucial communication tool in the modern age, experiencing increasing demand across all sectors (Neff, 2014). It has simplified lives and improved the collection and storage of information, all while minimizing time, effort, and costs (Pratama et al., 2019). Furthermore, the Internet has made global communication fast and convenient (Ngai, Tao & Moon, 2015), fundamentally transforming how we connect (Azzaakiyyah,2023; Laksamana, 2018). It offers various online alternatives that support research, information dissemination, interaction enhancement, and on-demand information reproduction (Al-Ayyaf & Al-Nsour, 2024; Godey, 2017).

Social media has emerged as one of the most significant tools for online communication. Peer communication has increased and is now seen as a form of personal socialization. These methods of communication significantly influence the decisions of individuals with similar views, interests, and emotions (Siddiqui & Singh, 2016). Social media provides an abundance of information on diverse topics or issues relevant to society (Traphagen, 2015). It serves as part of electronic communication tools that facilitate the sharing of perspectives, ideas, experiences, expectations, and opinions among individuals (Das & Mandal, 2016). Interaction through social media is now a constant aspect of life across various fields, including education, sports, friendships, medicine, engineering, economics, sociology, music, and welfare (Al-Nsou & Tarofder,2022; Arshad, 2019).

Communication research confirms that social media interaction has lowered barriers and obstacles among people (Hudson, Huang, Roth, & Madden, 2016) and has influenced personal characteristics (Abrar et al., 2017). While these platforms have expanded opportunities for interaction, exchange, and connection (Hajli, 2014), they have also simplified messaging and data sharing among users (Chappuis et al., 2011). The mechanisms for accessing data have improved (Lupton, 2014), making social media a more effective alternative compared to traditional communication methods. In the era of social media, users can share experiences, results, and content through various formats, including messages, videos, and images (Das & Mandal, 2016). This interaction increases familiarity (Stresewski, 2016) and boosts the chances of building genuine relationships among users (Dennis et al., 2016). It also enables the publication of content that can be read, viewed, and utilized for daily decision-making (Al-Nsour, Tarofder & Binti Mhd Yusak,2023; Skoog & Söderström, 2015).

Additionally, social media interaction creates valuable opportunities for personal development and enhances enthusiasm through the sharing of experiences, emotions, and opinions (Ismail, 2017). Research indicates that social media interaction is a complex phenomenon that can have various theoretical implications (Gale, 2013). However, much of the practical research in this area remains vague and confusing, making it challenging to

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generalize findings related to its impact on behavior. Factors such as ease of use, lower costs, expanded Internet connectivity, and mobile applications raise concerns about potential issues (Onofrei et al., 2022). The credibility of user-generated content may be compromised, as social media platforms have become breeding grounds for gossip, misinformation, and the excessive reproduction of certain content (Ito et al., 2010). Studies have shown that social media can lead to new forms of bullying, social isolation (Carrasco, Hogan, Willman & Miller, 2008), and social anxiety (Tillery et al., 2008). Recent findings confirm that electronic interactions complement traditional social relationships and seek to enhance existing connections through social media (Boyd, 2010).

Overall, interaction via social media has provided individuals with extensive opportunities for engaging in broad social interactions using various communication tools that were previously inaccessible (Berinato, 2010). In light of this, it is vital to explore and conceptualize how Jordanians interact on Facebook. This platform allows discussions and evaluations of pressing social issues, including politics, corruption, and economics. Facebook is the most widely used social media platform in Jordan, with 6.45 million active users, accounting for 55.3% of Jordan's total population in 2025. Facebook offers a variety of interactive tools, including text, images, and videos, to express emotions, feelings, and opinions on various social issues. Ultimately, the goal is to streamline the interaction process on Facebook and clarify practical interactive practices while moving beyond traditional theoretical frameworks in this context.

2. RESEARCH STATEMENT

Social media has enhanced interactive dialogue among users and facilitated the exchange of data through various tools, including text messages, recordings, and images. It allows users to interact freely and express their feelings effortlessly (Baym, 2010). Additionally, social media offers a diverse array of tools that enhance electronic interaction and reduce ambiguity in opinions during discussions (Boyd, 2008). These tools take into account the cultural, educational, customary, and traditional differences among users within local societies. In developed societies, social media has led to behavioral and cultural changes. It has facilitated the integration and transformation of cultural structures in countries such as China and the USA (Öztürk, 2019).

Social media serves as a reliable source of information and a popular platform for political events and opinions, promotes government policies and action programs, engages citizens in elections, provides journalists with news, and enhances accountability and transparency within governmental institutions and among politicians (Hamilton et al.,2022; Green, 2012). However, social media can also be used negatively and can contribute to ambiguous phenomena. It has diminished awareness in some host societies and increased aggression among community members. eral Arab countries exemplify negative social media impacts, as they often lack the social capital necessary for effective participation in national policies.

As a result, these countries struggle to establish genuine relationships with their populations and find it challenging to maintain a sense of national identity. This leads to diminished influence over public behavior regarding national issues. In light of the cultural and ideological conflicts often encountered in developing countries, there is an urgent need to strengthen democracy and encourage citizen participation within these societies (Cheng & Evans, 2009). This study focuses on the process of online dialogue among Jordanians on social media, specifically Facebook. It explores the interaction mechanisms used by Jordanians, identifies the national issues highlighted in online discussions, examines the tools available on Facebook for expressing national views, and analyzes differences in online discussions based on age, gender, and education. The study will present a range of ideas discussed throughout the research.

3. RESEARCH OBJECTIVES

- Develop a model for measuring interactions on social media, with a focus on Facebook, as it is the most widely used platform in Jordan. This model will specifically address interactions that occur via Facebook.
- Apply the proposed model to a sample of Jordanian Facebook users to assess their online engagement with significant societal issues, including the economy, corruption, and politics.

4. RESEARCH SIGNIFICANCE

- Interaction via Social media is one of the most interesting and sensitive issues to researchers of communication and marketing. Interaction largely reflects the level of awareness and perception of the host audience during dialogue and social discussions. Understanding the interaction means that feedback can be linked to the intellectual differences and feedback in society, and its role in formulating the thinking styles of Jordanians.
- Provide a simplified application framework to explain the interaction between Jordanians on Facebook. The components of the interaction will be analyzed. This significant contribution is important for researchers and policymakers in the marketing and communication field. It is a remark about the use of social media in Jordan.
- Presenting a set of conclusions and recommendations. It is very necessary to understand the social media interactions and predict the future behavior of society.

5. LITERATURE REVIEW

5.1. The Electronic Interaction

The twentieth century marked the beginning of the Internet and the emergence of a new era of digital exchange, which has significantly influenced how people communicate (Raid et al.,2024; Edosomwan et al., 2011). The quantity and quality of shared material, such as images and files, have increased substantially, with email becoming an effective and rapid means of communication (Mitchell et al., 2015). Research indicates that the introduction of the computer in 1969 was a pivotal moment for social interaction and the development of participatory platforms. This era witnessed a technological boom that further integrated and advanced society. Communication methods shifted to more interactive formats, especially with the rise of social media, which heavily relies on websites and mobile devices (Sharma & Verma, 2018).

Before this digital revolution, social communication had its roots in ancient history. Early methods of communication included indicative signals like smoke and fire in ancient China, Egypt, and Greece (King, Pan, & Roberts, 2017). In various regions, drums were used as tools to extend the reach of human expression. Studies suggest that the seeds of social media were sown as early as 550 BC, notably with the establishment of a postal system in Iran that utilized horses for communication (Baruah, 2012). The 19th century saw the advent of the telegraph (1872), telephone (1890), and radio (1891), which enabled long-distance communication and elevated connections to a more sophisticated and modern level (Baker & Moore, 2008). Interaction is a symbolic process that involves establishing relationships and creating shared values and meanings (Aljufri, 2017). It encompasses the quality of information exchanged through various means, such as text messages, recordings, images (Das & Mandal, 2016), or verbal communication (Dholakia & Acciardo, 2014; Dichter, 1966).

This interaction is a logical behavioral process aimed at gaining advantages, receiving feedback, participating in new opportunities, and setting objectives within interactive relationships (Sarasvathy & Dew, 2005). Social media facilitates this interaction by significantly altering human communication methods and enabling global access (Öztürk, 2018). Additionally, social media allows for content creation (Nchabeleng et al., 2018), but it lacks a specific classification (Kaplan & Heinlein, 2010). It encompasses social networks (e.g., Facebook), social bookmarking (e.g., Digg), video-sharing platforms (e.g., YouTube), and photo-sharing sites (e.g., Flickr). Online social media serve as an alternative to traditional interaction methods, attracting participants from around the world (Bin Khunin & Al-Nsour,2024; Hajli, 2014). These individuals bring diverse experiences and skills, making it a quick and effective way to share visual and audio messages (Çolaklar & Aras, 2015). Users can create their identities and enjoy the ease and flexibility of engaging in discussions (Chawinga, 2017).

Electronic interactions are closely tied to interpersonal themes (Hennig-Thurau et al., 2013). As social beings, people seek to connect with others and gain new experiences from those with considerable knowledge and expertise. Social media also enables the sharing of personal information, evaluations of others' experiences, shopping, and entertainment (Chappuis et al., 2011). Statistics reveal that 5% of influencers generate 75% of traffic on social media platforms, with many having over 100,000 followers. This concentration of interaction opportunities influences users' awareness and levels of engagement (Cheng & Evans, 2009). The literature often conflates online interaction with the functionalities of social media. Positive interaction is associated with enhanced awareness, knowledge-building, and the dissemination of enthusiasm (Ismail, 2017).

The viral nature of the Internet facilitates the rapid sharing of experiences, emotions, and opinions (Lieberman & Schroeder, 2020). Social media is recognized as an essential digital communication channel for educating individuals, sharing data, evaluating it, and facilitating interaction (Chappuis et al.,2011). Digital interactions often convey feelings of friendship, help build relationships, and facilitate the expression of intimate emotions (Baym, 2010). However, studies also indicate that motivations for engaging with social media include friendship, leisure, learning, religious affiliations, and sports clubs. These motivations contribute to feelings of belonging, friendship, and even romantic connections (Kojath, 2011). Nonetheless, social media can also cultivate environments for gossip, misinformation, bullying, and the perpetuation of negative behaviors by new users (Boyd, 2010), which may lead to social isolation (Tillery et al., 2015).

5.2. E- Interaction in Host Communities

Following the era of online photographs for dating and marriage, social media emerged between 1998 and 2005 as a platform enabling interactive dialogue among users (Hajli, 2014). This dialogue aimed to enhance reading, viewing, and decision-making processes (Hudson et al., 2016). The quality of data circulated through text messages, recordings, and images significantly influences these interactions (Das & Mandal, 2016). Users can express their feelings and relationships through these platforms (Baym, 2010).

The interactive channels offered by social media—such as text, audio, and video—enrich electronic dialogue and help reduce ambiguity in expressing emotions and ideas (Boyd, 2008). Images shared on social media often depict aspects of everyday life and convey expressions of friendship, belonging, and love (Kujath, 2011). These images can cover a range of topics, including religion, sports, education, and celebrities. Social media serves as a complementary tool to face-to-face interactions, and research suggests that many users view their Facebook relationships as extensions of prior interactions. Additionally, some users actively seek to build familiarity through Facebook (Kujath, 2011).

Furthermore, online interactions can also take place through text messages, emails, and personal blogs. Evaluating the effectiveness of these methods requires consideration of cultural differences, societal customs, and traditions (Kelly et al., 2018). In contrast, face-to-face interactions involve non-verbal communication, such as smiles and handshakes, as well as spoken expressions aimed at conveying emotions like humor and irony (Wang et al., 2015). Text-based interactions on platforms like Facebook, Twitter, and WhatsApp cannot convey physical emotions such as handshakes or vocal intonations. As a result, non-verbal cues need to be interpreted through text (Gjoka et al., 2011). Studies indicate that audio messages communicate thoughts and emotions more clearly than text-based emails (Ribeiro, 2010). However, text messaging can limit individuals' abilities to fully express their thoughts and feelings (Nduhura & Prieler, 2017).

Additionally, read receipts can hinder the effectiveness of interactions, leading to less meaningful communication regarding planning and emotional expression (Liao et al., 2012). Text-based interactions often feel impersonal, which can restrict individuals' ability to convey their thoughts (Chen et al., 2013). Social media also facilitates the creation of social capital through networking, allowing users to share knowledge, connect with others, and influence their everyday environments (Aljufri, 2017). These tools have become essential in modern life and have led to significant societal changes influenced by their interaction methods (Al-Nsour & Hasnin,2024; Fetscherin & Heinrich, 2015). Users can share articles and publications, tag involved individuals, and foster further discussions (Nagi, 2013).

Research confirms that interactions on social media significantly impact community communication, resulting in behavioral and cultural changes (Wang et al., 2015). The influence of social media extends beyond individual societal structures, encouraging integration and overlapping interactions, and plays a crucial role in shaping cultural concepts within society (Öztürk, 2018). The virtual community has evolved into a vital source of information, a venue for organizing events, expressing opinions, sharing photos, meeting new people, promoting work, and participating in campaigns (Al-Qahtani & Al-Nsour, 2025; Chapuis et al., 2011). It has made it easier for journalists and media outlets to access information, increasing accountability among organizations and public figures (Green, 2012). Many local governments worldwide actively engage in social interactions via social media to enhance their popularity and outreach (Fischer & Reuber, 2011). Consequently, social interaction has become a key component of government work programs, aimed at influencing public perception and societal behavior on various important national issues (Cheng & Evans, 2009).

Communication in modern societies plays a crucial role in shaping national identity and promoting socialization (Avalle et al., 2024; Buckingham, 2012). In this context, government institutions allocate a significant portion of their resources to modern communication tools to effectively connect with their target audiences online (Mergel, 2013). The aim is to enhance democratic engagement, encourage citizen participation, and foster cooperation, while also establishing positive practices regarding current and future public issues and government policies (Stresewski, 2016). This effort encompasses the interpretation of laws and regulations and emphasizes the need for increased investments in human capital (Bertot, Jaeger, & Grimes, 2010). Such initiatives lead to greater public satisfaction with governmental actions and contribute to more effective and efficient policy-making (AL-Nsour, Somili, & Allahham,2021; Mergel, 2013).

Promoting electronic interaction among citizens ensures that the government acknowledges public opinions and wishes, leading to a deeper understanding of the needs of its people (Snead, 2013). These measures can prevent societal clashes with governments and mitigate behavioral issues, as well as reduce the negative consequences of conflicts (Alnsour, Alnsour & Alotoum,2021; Mergel, 2013). Studies show that electronic communication (dialogue) in developed countries, such as China and the United States, has become a prominent tool for direct engagement with citizens. In Jordan, there are 6.3 million active social media users, with 87.3% using Facebook (www.deportal.com). Utilizing these figures fosters vital and continuous social interaction between the state and its society, which can drive the future development of economic, political, and social outcomes (Labricque, 2014). Key elements for developing effective electronic interaction include sharing views, promoting positive opinions, obtaining public feedback efficiently and with minimal costs, considering human rights from a broad societal perspective, and viewing citizens' complaints as general matters rather than specific requests from particular groups (Medaglia & Zheng, 2017). Overall, using social media to address societal issues is recognized as an effective strategy for achieving community enthusiasm, building an inclusive national identity, and improving social integration within a diverse and autonomous environment (Brakus et al.,2009). In such an environment, individuals can effectively fulfill their social roles, engage in higher levels of communication (Mesch, 2006), enhance cohesion and interaction, and improve relationships among people (Al-Nsour & Alshaiban, 2024; Go & You, 2016).

6. PRACTICAL STUDY

6.1. The Population

The population for this study consists of all Facebook users in Jordan. According to official information from the Deportal website, there are expected to be 6.45 million active users of the platform in Jordan by 2025.

6.2. The Sampling Technique

The study employed a purposive sampling method, which was deemed the most appropriate for this research. This approach allowed the researcher to effectively access the desired sample on Facebook. A total of 367 questionnaires were collected from various cities in Jordan, ensuring representation from different age and cultural segments. An online questionnaire was created using Google Drive and distributed randomly to Facebook users. In terms of gender distribution, males comprised two-thirds of the participants, making up 67% of the total sample, while females represented 33%. The age distribution included eight age groups, with the group aged 50 and above having the highest percentage at 23.6%. In contrast, only 7% of participants were under 18 years old. The other age groups were more evenly distributed: 9.4% were aged 25 to under 30, 11.2% were aged 30 to under 35, 13.9% were aged 35 to under 40, and 13.1% were aged 40 to under 45. Regarding education levels, more than half of the participants (52.4%) held an undergraduate degree. Graduate students constituted 39.7% of the sample, while 14% had completed only secondary education.

Table 1: Responses and Percentage of Demographics.

Demographics		**The categories**								
1	Gender	Male %		Female %						
		67		***33***						
2	Age	Less than 18 %	18 – less than ***25*** %	***25*** – Less than 30 %	30 – Less than35 %	35 – Less than 40 %	40 – Less than 45%	45 – Less than 50%	+ **50**%	Age 35 – Less than 40 ± 1.983
		7	7.9	9.4	11.2	13.9	13.1	20.2	23.6	
3	Education level	Less than Secondary School %	High School %	Bachelor degree%	Graduate degree%	Other % (Diploma)	Educational Level 3.3483 ± 0.66775			
		1.5	14	52.4	39.7	1.5				

6.3. Measurement and Data Analysis

The Research Instrument includes a set of closed-ended questions designed to explain the items. Table 1 presents the results of the demographic analysis of the sample. The questionnaire was utilized as a tool for collecting primary data from the participants. The proposed model consists of two main dimensions. The first dimension, referred to as technical interaction, is measured using a point scale. A score of 3 is assigned to a "strong" response level, 2 to a "medium" response level, and 1 to a "weak" response level. The second dimension, termed behavioral interaction, is measured on a five-point scale. The scoring for this dimension is as follows: 5 for "very strong," 4 for "strong," 3 for "medium," 2 for "weak," and 1 for "very weak." To enhance accuracy, a relative scale was employed. The three-point relative scale is defined as follows: (1) 3 for a strong response (+2.33), (2) between 1.67 and 2.33 for a medium response, and (3) below 1.67 for a weak response. The five-point relative scale categorizes responses as follows: (1) above 4.2 for "very strong," (2) between 3.6 and 4.2 for "strong," (3) between 2.4 and 3.6 for "medium," (4) between 1.6 and 2.4 for "weak," and (5) below 1.6 for "very weak".

Table 2: Cronbach's Alpha Results.

The Interaction	**Cronbach's Alpha**
The Electronic Interaction	0.688
A. Technical Interaction	0.75
B. Behavioral Interaction	0.618
The Level of Interaction With Local Social Issues	0.81
Total Variables	0.79

To analyze the research responses, descriptive analysis was utilized, which included calculating the arithmetic mean, standard deviation, and frequencies. Table 1 also presents the results of the internal consistency test for the study variables using Cronbach's Alpha. This reliability measure is considered statistically acceptable, as it exceeds the minimum permissible rate of 0.60. The results indicated that all variables meet the statistical acceptance criteria, as they are above this threshold.

7. THE E-INTERACTION COMPONENTS OF THE PROPOSED MODEL

In the current study, the researcher developed a model to measure online interaction on Facebook. A review of several previous studies examined how interactions are typically measured and revealed some confusion surrounding the concepts of use, advantages of use, and purposes of use. These concepts differ from the core idea of interaction that the researcher aimed to capture in this model. The researcher named this model the "IN–IMSIU" Model for electronic interaction. The model proposes two primary dimensions. The first dimension is the technical aspect of interaction, which outlines the components available on Facebook that play a crucial role in the interaction process. Users choose these components when creating their accounts, acting as their identification cards and enhancing engagement with events and people. These components are essential for activating the account and cannot be used without them. While Facebook management provides users with some degree of freedom in selecting from a set of technical options, utilizing these components is a mandatory part of the interaction process.

The researcher organized the components of the study into four categories: account privacy, account language, account username, and account access methods. Collectively, these components are referred to as the organic instruments. The second dimension of the proposed model is known as the Behavioral Mix, which reflects user behaviors after they register on Facebook. Unlike the technical dimension, these practices are optional; users can browse the web without engaging in them. However, participation in these practices significantly affects the level of voluntary interaction. The researcher categorized these practices into five groups: form of participation, purpose of interaction, expression of participation, emoji usage (to convey emotions), and source of interaction. Consequently, the impact of technical interaction is less significant than that of behavioral interaction within the model. Table 3 displays all the components and dimensions of the proposed model. Since human behavior is often subject to oversight or forgetfulness, academics and specialists should apply and refine this model in future studies to ensure its effectiveness. The model is based on several straightforward assumptions that facilitate the evaluation of electronic interaction processes in the subsequent sections.

Table 3: The Responses of the Two Dimensions of the IN-IMSIU Model.

The Domain	Response Level	Response Value	Percent %	Arithmetic Mean	S.D
	The Model Domains	s			
1. Technical Interaction Mix (Organic Mix):					
	Account Privacy				
Public	Strong Interaction	3	41.2	2.16	0.8
Specific and Selected Friends	Middle Interaction	2	33.7		
Facebook Friends Only	Low Interaction	1	25.1		
	Language				
Arabic (Mother Tongue)	Strong Interaction	3	77.2	2.7744	0.4187
English (Second Language In Country)	Middle Interaction	2	22.2		
Other Languages	Low Interaction	1	0.4		
	Account User Name				
Official Name	Strong Interaction	3	95.9	2.9438	0.28861
Nickname	Middle Interaction	2	2.6		
Fake Name	Low Interaction	1	1.5		
	Access Way				
Mobiles (Quick Access)	Strong Interaction	3	76.8	2.711	0.56635
Computer + Mobiles (Middle Access)	Middle Interaction	2	17.5		
Tablets + Mobiles + Mobiles (Weak Access)	Low Interaction	1	5.7		
	The Level of Technical E-Interaction			2.6473	0.5184
2. Behavioral Interaction Mix:					
	Participation on Facebook (Interaction Length)				
Creating New Content	Very Strong Interaction	5	46.4	4.0247	1.076
Sharing Posts with Others Amendment	Strong Interaction	3	18		
Sharing Posts to Others Without Amendment	Middle Interaction	4	31.4		
Watching the Posts Only	Weak Interaction	2	0		
No Action Taken	Very Weak Interaction	1	4.2		
	Purpose of Interaction (Interaction Scope)				
Media and News	Very Strong Interaction	5	33.9	3.4736	1.40729
Social Occasions and Varieties	Strong Interaction	4	19.8		
Entertainment	Middle Interaction	3	18.1		
Building Friendships	Weak Interaction	2	16		
Developing Skills	Very Weak Interaction	1	12.2		
	Expression of Interaction (Interaction Width)				

Share	Very Strong Interaction	5	14.7	3.5714	0.91108
Comment	Strong Interaction	4	37.4		
Like	Middle Interaction	3	43.1		
Watching Only	Weak Interaction	2	0		
Non-Active User	Very Weak Interaction	1	4.8		
	Emoji Used (Feelings) (Interaction Depth)				
Love (Very Optimistic)	Very Strong Interaction	5	60.7	4.4195	0.8065
Care (Optimistic)	Strong Interaction	4	22.1		
Haha (Medium Felling)	Middle Interaction	3	15.7		
Sad (Pessimistic)	Weak Interaction	2	1.5		
Angry (Very Pessimistic)	Very Weak Interaction	1	0		
	Source of Interaction (Mix Concentration)				
The Posts By Self-User	Very Strong Interaction	5	34.5	3.7293	1.20186
The Social Issues (The Society)	Strong Interaction	4	26.1		
Posts by Relatives and Friends	Middle Interaction	3	22.7		
Posts By VIP (Celebrities)	Weak Interaction	2	11.2		
The Posts By Facebook Groups' Members	Very Weak Interaction	1	5.5		
	Level of Behavioral E-Interaction			3.8437	0.8805

7.1. The Technical Interaction Mix (Organic Interaction)

In the first part of the model for measuring reactions, the technical dimension is addressed. A three-point scale was employed to assess technical interactions, with response options indicating varying levels of interaction, categorized as high or medium based on the arithmetic mean value. The overall mean value for the four components in this dimension is 2.65, with a confidence interval of 2.65 ± 0.52. This suggests that technical interactions among Facebook users in Jordan are strong, as 72.7% of participants endorse this conclusion.

- The first sub-component is account privacy, which refers to the individuals authorized to view a user's profile and posts. When a profile is public, it increases the visibility of posts, thereby enhancing the potential for interaction and sharing. The results indicate that 41.2% of participants have public accounts, with a confidence interval for this component ranging from 2.16 to 0.8, reflecting a moderate level of interaction.
- The second sub-component is the language of the account. Arabic is the native language of Jordan, and its use facilitates and strengthens user engagement. About 77.2% of participants use Arabic in their interactions, with a confidence interval of 2.77 ± 0.42, indicating a high level of interaction based on language.
- The third sub-component concerns the username, which is how users identify themselves to others, often including a first name and surname, though some may use fictitious names. Generally, more identifiable usernames foster better interaction and relationship-building, enhancing the likelihood of influence when users are recognized by their real names. Due to ethical and legal constraints, such as Jordan's cybercrime law and Facebook policies aimed at eliminating fake accounts, 95.9% of users operate under their real names. The confidence interval for this component is 2.94 ± 0.29, indicating a strong level of interaction.
- The fourth sub-component is the method of access. The study identifies three methods for accessing Facebook accounts, with the most frequently used method being mobile access. Approximately 76.8% of participants prefer this mode since it is the fastest and most common way to access the platform. Mobile access is available to users at all times and locations, requiring minimal physical effort and no special equipment. This method ensures high confidentiality and privacy when using the account, allowing users to manage apps and follow updates regularly. While this high level of interaction is advantageous, the researcher expresses concern that multiple access methods may reduce privacy and complicate post-tracking. Personal use of computers or tablets may expose accounts to other family members, increasing the risk of unauthorized use and diminishing privacy. Additionally, the low purchasing power of Jordanians limits the likelihood of acquiring personal tablets and computers, which can hinder effective Facebook use for everyone. The confidence interval for this component is 2.71 ± 0.57, again indicating a strong level of interaction.

7.2. The Behavioral Interaction Mix (Non Organic Interaction)

The second part of the proposed electronic interaction measurement model, IN-IMSIU, focuses on the behavioral dimension. This dimension reflects the practices and behaviors of users, which are defined by the users themselves. It is tied to their level of awareness and perception. A five-point scale was utilized to measure behavioral interaction, and this dimension was given a higher relative weight compared to the first dimension. The results indicated a varied range of responses, with the arithmetic mean value showing that 62.7% of participants reported a strong level of behavioral interaction among Facebook users in Jordan, with a mean of 3.84 and a confidence interval of 3.84 ± 0.88.

- Interaction Length: The first subcomponent assesses how users participate on Facebook, featuring five answer options derived from the literature. The order of these options is not fixed and may vary depending on the participants in the sample. Among the responses, user-created content represented the highest level of interaction at 64.4%. In contrast, users sharing leaflets, with or without modifications, reflected lower levels of interaction at 31.4% and 18%, respectively. Users who did not engage in any practices demonstrated a significantly lower level of interaction. The average response recorded a confidence interval of 4.025 ± 1.08, indicating that the reaction level was measured at an average degree.
- Interaction Scope: The second subcomponent explores the purpose of interaction, also featuring five answer keys. These options, identified from the literature, are ordered based on the participants' response levels. In Jordanian society, interaction driven by news and media ranked highest at 33.9%, followed by participation in social events at 19.8%. Interactions focused on entertainment, building friendship relationships, and developing personal skills ranked lower among the participants. The arithmetic mean value suggests a high level of interaction based on the purpose of participation.
- Interaction Width: The third subcomponent examines the expression of interaction, which includes five keys available on Facebook for users to communicate their interactions with others. The importance of sharing is rated higher than simply liking or commenting. In this study, only 14.7% of participants shared posts, while liking and commenting were more common, at 43.1% and 37.4%, respectively. Additionally, 4.8% of participants were classified as silent users, showing no interaction on Facebook. The moderate response from participants resulted in a confidence interval of 3.47 ± 1.4, indicating that the level of interaction in this component is strong.
- Interaction Depth: The fourth subcomponent relates to expressing feelings and emotions. Emoji's are employed in the physiological reaction process. This component also contains five answer keys that help users express their emotional responses to the posts of others. The options range from very optimistic (Love) to very pessimistic (Angry). The findings revealed that 82.8% of participants identified as optimists, indicating strong interaction with others' posts. A smaller percentage of Jordanians expressed humor (Haha) at 15.7%, while only 1.5% showed passive passion toward others' posts. The confidence interval for this component is 4.42 ± 0.82, suggesting a very strong level of emotional interaction.
- Mix Concentration: The fifth subcomponent addresses the source of interaction, which comprises five key answers based on existing literature on Facebook interaction. The order of these response options reflects the participants' response levels. The primary source of interaction is user posts, which garnered the highest level of interaction at 34.5%. Social posts accounted for 26.1%, while posts from friends and relatives made up 22.7% of interactions. VIP posts (political, artistic, and sports-related) were noted as a low source of interaction, with only 11.2% of participants engaging with them. Participants' answers resulted in a confidence interval of 3.73 ± 1.2, indicating that the interaction level in this component is strong. After determining the levels of interaction based on the dimensions of the proposed model, it is noteworthy that technical interaction is evaluated using three answer keys, with the upper limit of the arithmetic mean set at 3. Behavioral interaction is based on five answer keys, with the upper limit of the arithmetic mean set at 5.

The level of interaction among Facebook users can be measured using the following metrics:

A. The addition of response values from the two proposed dimensions: (6 + 15) = 21.
B. The relative weight of technical interaction via Facebook is calculated as follows: 0.2858 (6/21).
C. The relative weight of behavioral interaction via Facebook is: 0.7142 (15/21).
D. Next, we multiply the arithmetic mean of the two proposed dimensions by the relative weight of each dimension:

- The Technical Interaction Value (TIV) is: 0.2858 * 2.6473 = 0.75659.
- The Behavioral Interaction Value (BIV) is: 0.7142 * 3.8437 = 2.7451.

E. Next, we add the two interaction values from the proposed dimensions. A five-point scale is used to measure the overall level of interaction among Facebook users as follows:

- If the interaction value is between 5 and more than 4.2, the interaction is considered very strong.
- If the interaction value is between 4.2 and more than 3.4, the interaction is strong
- If the interaction value is between 3.4 and more than 2.6, the interaction is moderate (average).
- If the interaction value is between 2.6 and more than 1.8, the interaction is weak.
- If the interaction value is less than 1.8, the interaction is very weak.

F. The total interaction value for the two proposed dimensions is 3.5. This value is situated in the second category, indicating that the level of interaction among Facebook users in Jordan is strong.

8. APPLYING THE PROPOSED MODEL ON JORDANIAN SOCIETY

This step is not an essential component of the proposed model and can be substituted with other variables such as satisfaction, loyalty, awareness, or perception. The research measures how Jordanians engage with

significant societal issues. The first question investigates the geographic scope of the topics that Jordanians interact with. The results show that world news captures the most attention, with 38.9% of respondents, followed by local news at 32.8% and Arab news at 28.2%. The confidence interval for the responses was 2.06 ± 0.85, indicating a moderate level of interest in local news in our study. Among the types of local news, social news was favored by Jordanians, garnering 18.3% of total participants. News related to government policies and strategies ranked second at 13.6%, while news about shopping and sales attracted 13.5%. Economic problems in Jordan did not rank highly, with only 8% of participants. News about VIPs, such as celebrities and athletes, received 6.8% and 6.4% respectively. Other types of news, which are expected to be priorities for Jordanians, received moderate attention. Specifically, interest in COVID-19 news was at 10.8%, while news regarding corruption and politicians received 10.7% and 11.2% of participants' responses, respectively. Overall, important social news garnered 30.7% of participants' interest. This indicates a clear lack of engagement among Jordanians concerning sensitive and critical societal issues. This finding was further confirmed in response to the third question, revealing that only 25.9% of participants reported a high level of interaction with these issues. The confidence interval for these participants was 3.03 ± 0.97, and the mean value suggests that the level of interaction among Jordanians with significant social issues via Facebook is moderate.

Table 4: The E-Interaction among Participants with Social Issues.

The Variable	Percent %	Mean	S.D
Scope of News			
Local News (Jordan News)	32.9	2.0603	0.8462
Regional News (Arab News)	28.2		
International News	38.9		
Type of News			
Sport News	6.4	5.4215	2.4966
Corruption News	10.7		
Politicians News	11.2		
Celebrities News	6.8		
Government News	13.6		
COVID–19 News	10.8		
Societal News	18.3		
Economic News	8		
Marketing and Sales News	13.5		
Other	0.7		
Level of E- E-E-Interaction in Jordanian Society			
Very Strong	7.5	3.03	0.96511
Strong	18.4		
Medium	50.9		
Weak	16.1		
Very Weak	7.1		

8.1. The Statistical Differences in the Interaction among Participants with Social Issues According to the Proposed Model

To test the statistical differences, ANOVA was employed for variables with more than two response categories, such as education and age levels. In contrast, the t-test was used for variables with binary response categories, such as sex. Table 5 presents the results of these tests. According to standard statistical practice, if the p-value for a demographic variable is less than 5%, we can conclude that the demographic variable has a significant effect on the dimensions of electronic interactions.

Table 5: The Statistical Differences According to Demographics.

The Domain	P-value For Sex Differences	P-value For Age Differences	P-value For Education Differences	Statistical Decision
IN – IMSIU Model Domains				
1. Technical E-Interaction Mix (Organic Interaction):				
Account Privacy				
Public	0.96	0.00	0.118	No Statistical Differences According to Sex and Education. But there is a Differences tend to Age Group 18-25 Years.
Specific and Selected Friends				
Facebook Friends Only				
Language				
Arabic (Mother Tongue)				
English (Second Language In Country)				No Statistical Differences According to All Demographics
Other Languages	0.65	0.24	0.581	
Name of Account User				
Official Name	0.00	0.00	0.158	No Statistical Differences According to Education. But There Is A Statistical difference that tends to be Males and the Age Group 18-25 Years.
Nickname				
Fake Name				
Access Way				
Mobiles (Quick Access)	0.013	0.343	0.119	
Computer + Mobiles (Middle Access)				
Tablets + Mobiles + Mobiles (Weak Access)				No Statistical Differences According to All Demographics
2. Behavioral E-Interaction Mix (Non-Organic Interaction) :				
Participation Type Via Facebook (Interaction Length)				
Creating New Content	0.614	0.135	0.00	
Sharing Posts With Amendment				
Sharing Posts Without Amendment				No Statistical Differences According to Sex and Age. But There Is a Statistical Differences tend to be Less than Secondary School.
Watching the Posts Only				
No Action Taken				
Purpose of Interaction (Interaction Scope)				
Media and News	0.002	0.008	0.838	
Social Occasions and Events				No Statistical Differences According to Education. But There Is a Statistical difference that tends to be Males and the Age Group 18-25 Years.
Entertainment				
Friendships				
Developing Skills				
Interaction Expression (Interaction Width)				
Share	0.924	0.037	0.502	
Comment				No Statistical Differences According to Sex and Education. But There Is a Statistical Differences tend to Age Group 35 – less than 40 Years.
Like				
Watching Only				
Non-Active User				
Emoji Used (Interaction Depth)				
Love (Very Optimistic)	0.397	0.224	0.482	
Care (Optimistic)				
Haha (Medium Felling)				
Sad (Pessimistic)				No Statistical Differences According to All Demographics
Angry (Very Pessimistic)				
Corporation of Interaction (Mix Concentration)				
The Posts by Self-User	0.325	0.623	0.159	
The Social Issues (The Society)				
Posts by Relatives and Friends				
Posts By VIP (Celebrity)				
The Posts by Facebook Groups' Members				No Statistical Differences According to All Demographics

9. THE DISCUSSION OF THE PROPOSED MODEL RESULTS

This study presents the IN-IMSIU Model for Electronic Interaction, a framework designed to measure user interactions on Facebook. The model consists of two main dimensions. The technical dimension emphasizes the importance of technological aspects in Facebook interactions and includes four key segments: privacy, language,

username, and method of access. The researcher applied this model to a sample of 367 Facebook users in Jordan, where Facebook is the most popular social media platform, reaching 87% of all social media users. The findings reveal that 41.2% of users have public Facebook accounts accessible to both friends and non-friends. Regarding language use, Arabic is the primary language for 77.2% of participants, and 95.9% of users have accounts registered under their real names. Additionally, 76.8% of participants access their Facebook accounts via mobile devices. The components of technical interaction, along with "organic interaction," indicate a high level of engagement among Jordanian users on the platform. The research confirms that technical interaction is influenced by the relationship between computer usage and technology, which is largely determined by ease of use and accessibility. These features are integrated with social network characteristics, establishing them as tools for perception, learning, and convenience (Das & Mandal, 2016; Hudson et al., 2015).

Other studies highlight the advantages of social networks in enhancing interaction processes, such as improved data access and time management (Lupton, 2014). Some researchers emphasize measuring interaction levels based on the effort and ease of information exchange, considering time and space as motivating factors for use rather than methods to gauge interaction levels (Décieuxa et al., 2018). It is essential to acknowledge the ethical differences between usage, determinants of use, and measures of social media interaction. There is an ongoing need to advance social media metrics (Hudson, Roth, Madden, & Hudson, 2015; Lee, Chang, & Stokes Berry, 2011). Previous studies have lacked quantitative methodologies for measuring interaction processes. Therefore, the researcher argues that prior studies primarily focus on the usage of social networks rather than on indicators that assess interaction levels, highlighting the significance of the proposed IN Model in addressing the gaps overlooked by earlier research. In summary, this study finds that the level of technical interaction among Facebook users in Jordan is strong.

The behavioral interaction mix in the proposed model "IN-IMSIU" relates to the actions users take after entering the network. This is referred to as non-organic interaction. The model consists of five components: form of participation, purpose, expression, emotion, and source of interaction. Our study found that 64% of participants display high interactive tendencies by consistently creating new content, identifying this group as the most interactive segment. The primary purpose of their interactions is news and media, which accounts for 33.9% of the responses. Most of the time, these interactions are spontaneous and do not necessarily reflect the level of attention given to the posted content. In terms of emotional expression, a significant majority of participants—82.8%—showed a surplus of emotions towards posts by using the Love emoji. Additionally, 34.5% of participants engaged with posts related to Jordanian society as a source of interaction. These posts often include events, congratulations, and various narratives such as obituaries, graduations, successes, marriages, job promotions, religious holidays, birthdays, and shared social stories.

Given these findings, we reviewed several studies to explore the concept of interaction. Notably, these studies did not identify any components similar to those in our proposed model. This observation is both insightful and warrants further clarification. As previously mentioned, establishing a measurement process that accurately captures various benefits of social media is quite challenging. A theoretical framework is needed to differentiate between usability advantages, the concept of use, and interaction measurement (Saboo et al., 2016; Hudson et al., 2015; Al-Badi et al., 2013). One study highlighted that text messages, audio recordings, photos, and videos serve as tools for interaction, participation, and collaboration among online users (Das et al., 2016). Additionally, emotions and feelings play a crucial role in building relationships online (Hudson et al., 2015). Leisure activities such as internet use, music listening, gaming, and relaxation also represent measures of entertainment or recreational interaction on social media (Handyside & Ringrose, 2017). However, these elements are merely motives for social media usage and do not equate to genuine interactions reflecting awareness, knowledge, dialogue, or discussions on critical issues.

Social media has transformed personal relationships into virtual connections through computers, complementing face-to-face interactions. Consequently, important news can be disseminated quickly, eliminating the need for in-person meetings. Social media options are accessible anytime and anywhere, enabling users to write, chat, and share photos and videos, which enhances interaction effectiveness. For instance, Facebook offers Messenger services to facilitate this process. Electronic interaction has thus become easy, automatic, and natural, contributing to increased similarity and convergence with face-to-face interactions (Westlund & Bjur, 2014). In our current study, the level of behavioral interaction was notably strong among Facebook users in Jordan.

The results indicate that world news captures the highest attention from Jordanians on Facebook, accounting for 38.9% of engagement, while local news follows with 32.8%. Breaking down local news further, community news represents 18.3%, government policies account for 13.6%, and shopping and sales make up 13.5%. Despite the significant societal issues in Jordan, such as economic struggles, corruption, and political challenges, only 8% of participants showed notable interest in these topics. COVID-19 news garnered 10.8% attention, news about corruption reached 10.7%, and news concerning politicians received 11.2%. Overall, the most significant news for Jordanians received 30.7% of the total attention on Facebook. This suggests that while Jordanians interact strongly on Facebook, their engagement with sensitive societal issues is moderate.

Previous studies support the idea that there are social factors motivating users to engage on social media platforms. Transparency plays a key role, as citizens have a desire to easily verify information shared by

government agencies. Participation reflects interactions with content produced on Facebook and measures the extent of bilateral communication between government institutions and the public. Collaboration allows the public to engage directly with governmental content posted on Facebook. The findings also indicate that education does not significantly influence technical interaction among Jordanian Facebook users. However, age does have an impact, particularly among females and the 18-and-under-25 age group. This younger demographic tends to use public accounts and real usernames, whereas males more frequently utilize mobile accounts and real usernames on Facebook. Behavioral interaction assessments reveal that males aged 18 to under 25 demonstrate a greater interest in news and media compared to other groups. In contrast, users with lower than secondary education are more active in creating their content. These results align with the notion of free access and exchange of information, which have empowered this group to express themselves, enrich their knowledge, and seek social value through Facebook.

The results indicate that there are fundamental differences in the ways different age groups interact, particularly among those aged 35 to less than 40 years. Generally, younger individuals under 40 are more inclined to engage with others on Facebook. This aligns with studies suggesting that the free time available to young people often prompts them to seek entertainment through Facebook, such as connecting with friends, listening to music, and browsing the internet (Handyside & Ringrose, 2017). During certain times of the year, especially during holidays and national events, Facebook serves as an important platform for interaction, allowing users to share stories, greetings, and congratulations. This suggests that there may be less urgency for individuals to meet others in person or virtually since Facebook interactions can sufficiently fulfill social needs. Additionally, research shows that there are no significant differences between males and females regarding the amount of time spent on Facebook; however, differences do exist in the ways they use the platform. One notable finding is that males tend to express more emotion on Facebook than females. Furthermore, males are more likely to register on Facebook during times of isolation and depression (Kujath, 2011). Consistent with our findings, it was observed that 89.9% of males reported experiencing strong emotions on Facebook compared to 68.2% of females who reported similar levels of emotional engagement.

10. RECOMMENDATIONS AND IMPLICATIONS

The world today is changing rapidly due to technological innovation, making many things easily achievable. All fields of knowledge have benefited from this development, particularly marketing and communication majors. Social media is one of the significant breakthroughs of the 21st century. It provides enhanced tools for interaction with others and improved communication capabilities. Most studies in this field have focused on the use of social media in marketing, particularly regarding developing brand reputation and value, improving profit and sales metrics, and increasing competitiveness. The desired outcomes include facilitating communication with clients, responding to their inquiries, enhancing relationship management, and building trust. Furthermore, we should leverage the multiple opportunities that social media communication offers. It has become a tool for fostering positive interactions, spreading constructive ideas within society, embracing diverse cultures, and promoting fruitful dialogue.

A literature review revealed several concepts related to the use, communication, and interaction on social media. While these concepts are closely related and complementary, they cannot be used as synonyms. Each concept has its philosophy and components that must be carefully examined. Therefore, establishing a clear framework for theoretical conceptualization and practical differentiation among these concepts is essential. Interaction is the final stage following usage and serves a distinct function from what some theoretical literature suggests. Unfortunately, this literature has often confused and treated the concepts as synonymous, which has led to significant problems and the unacceptable integration of goals, tools, and justifications.

The current study focuses specifically on the concept of interaction via social media. The operational literature distinguishes between two types of interactions: direct and indirect. It has been observed that these interactions can be either independent or complementary. Indirect interaction on social media may rely on prior relationships among users, or it may exist solely within the social media platform. In both cases, a different approach to understanding and simplifying the interaction process is necessary, including identifying motivations, justifications, circumstances, and tools used for each interaction pattern. Ultimately, it is crucial to determine the type and level of interaction that is most effective for influencing users. This study proposes a model that focuses on interaction via Facebook, highlighting it as an independent practice created solely through the platform. Facebook serves as a means to develop social identity and foster online friendships.

The researcher believes that merging behaviors from physical life with those from virtual life may complicate measurements, necessitating a consideration of more concrete behavioral determinants within the proposed model. The IN-IMSIU model measures e-interaction of Jordanian users on Facebook and resolves a gap in existing studies that conflate the concepts of usage and interaction. Developed specifically for the context of Facebook, this model analyzes interaction using scientific methods based on several previous studies. The researcher applies the proposed model to sensitive issues within Jordanian society. Electronic interaction can create an engaging environment that encourages productive dialogue, facilitates the exchange of valuable information, and fosters the convergence of ideas between the government and society. By studying the

components of online interaction, the goal is to predict users' behavioral patterns, ensure human rights by allowing individuals to express their opinions, and highlight the flexibility of electronic interaction as a means of social progress.

This study also aims to build personal identity and promote a culture of meaningful and constructive dialogue among community members. As a result, social cohesion can be strengthened, trust in state institutions can be increased, and community development can be achieved. The implications of this study advocate for reducing legal constraints on interactive dialogue, enhancing government transparency, and promoting the use of Facebook as a tool for social and political development in Jordan. Addressing numerous national challenges—such as corruption, poverty, unemployment, a lack of national identity, and weak citizenship—requires a genuinely engaged society, as these issues pose significant threats to Jordan's political stability. There is a strong likelihood that the model will be applied and its results validated in other societies as well. The basic dimensions of interaction can also be adapted for use on platforms such as X and YouTube.

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