

Received: December 2023 Accepted: January 2024

DOI: <https://doi.org/10.58262/ks.v12i2.453>

## The Uses and Gratifications of Social Media Interaction - An Applied Study on the Saudi Audience

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### **Abstract**

*Many researchers have sought to develop and apply existing media theories to the study of social media phenomena. Among these theories are the Uses and Gratifications theory and the Media Dependency theory. Some argue that Facebook usage is not separate from common usage patterns, such as spending time, entertainment, relaxation, reducing daily stress, and seeking information. From this perspective, Facebook achieves a synthesis between the needs of both new and traditional media. Audience behaviors are purposeful actions aimed at fulfilling specific needs, such as communicating with others, building new relationships, sharing their activities, and seeking individuals who share similar intellectual orientations and lifestyle patterns. This study aims to uncover new research directions regarding the Uses and Gratifications theory in social networks that could lead to theoretical additions in the future. It has become more focused on issues of identity disclosure, friendship behaviors, and privacy on these networks. This study employed a descriptive approach and used an electronic questionnaire to collect study data, the questionnaire consisted of three main dimensions: the first dimension included items related to the level of cognitive awareness, the second dimension included items related to the level of affective awareness, and the third dimension included items related to the level of behavioral awareness, and was conducted on a random sample of 100 individuals from the Saudi audience aged 18 years and above who use social media.*

**Keywords:** *Interactive Uses and Gratifications, Social Media, Saudi Audience.*

### **Main Text Introduction**

The theory that was relied upon in this study is the theory of interactive uses and gratifications, which was referred to by Shyham Sundar and Anthony Limperos (Sundar & Limperos, 2013). This theory is based on the main premise that new media have advanced technological capabilities that create needs, because by providing certain satisfactions that the recipient was not aware of, it creates ongoing needs for him, Which is different from the old concept of the uses and gratifications approach, that was based on the idea that the recipient has certain needs that he seeks to satisfy through traditional media. Below, the satisfactions achieved as a result of the use of new technological media will be demonstrate.

First: Gratification at the level of methods and modality of media content, (1) Realism: According to the theory, the visual element is more trusted than the written text. (2) Coolness: the attractive design, stylish photographs, and the ability to communicate with others would likely make Pinterest a cool form when compared to other social media (Sundar, Tamul, & Wu,

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2014). (3) Novelty: This is done by watching videos and video games, which have become greater in terms of the amount of interaction, it is the satisfaction that users seek when they use a new technology (Sundar, 2008). (4) Being There: This is achieved by broadcasting the event at the same time as it happens in audio and video.

Second: Agency-based Gratification (the Internet user becomes as if he were the source of information), (1) Agency – Enhancement: the new media has made users play the role of sender or source of information, which represents a new satisfaction for them (Sundar, 2008), (2) Community building: new media have made users integrate into new communities (Stavrositu & Sundar, 2012), (3) Bandwagon: That is, persons want to be in the same bandwagon as the majority, (4) Filtering: That is, deleting what the user does not want or seeking access to only what the user wants (Sundar & Limperos, 2013), (5) Ownness: the recipient is the owner of this medium (Sundar, 2008).

Third: Interactivity- based Gratifications (The user's ability to make modifications to the medium), (1) Interaction: means users have the option of indicating their needs and preferences on an ongoing basis, (2) Activity: the receiver is now active and the time of the passive receiver has ended, (3) Responsiveness: is the step to which the medium is responsive to user's needs, (4) Dynamic Control: the recipient has complete control over the content it is exposed to, when it is exposed to it, and in what method (Sundar, 2008).

Fourth: Navigability Based Gratifications: (1) Browsing: the recipient browses websites and searches for multiple topics in different ways, (2) Scaffolds Navigation aids: mentions to the gratification expressed by users who expect to be guided through during the interaction, (3) Play and Fun: This is to achieve fun through games (Sundar, 2008).

## **Materials and Methods**

The Uses and Gratifications theory introduced a set of concepts and evidence that emphasize that individuals' media behavior is more influential than social, demographic, and personal variables. In other words, this theory takes the audience as the starting point rather than the message, and it informs us about their communication behavior regarding their direct experience with media. However, this research focus on the theory did not provide significant progress in understanding the motives behind using new media or the gratifications obtained from such usage. Previous studies revolved around three main axes covering the attributes of the medium, exposure positions, and accessibility.

Albert study (2009), which is one of the studies that focused on the usage approach in social media studies, aimed to uncover how Arab youth use Facebook by studying the communication aspects conducted through it and understanding their attitudes toward the platform.

Linebrry study (2012) focused on the uses and gratifications of social media among university students in the United States and its relationship with social capital.

Karimi study (Karimi al. 2014) aimed to understand the uses of social media by higher education students in Iran, Malaysia, the United Kingdom, and South Africa, as well as their expected and realized gratifications, in order to compare different cultures through the use of these platforms.

The state of digital in Saudi Arabia in 2023:

In 2019, the General Authority for Statistics in Saudi Arabia reported that the percentage of youth on social networking sites reached (98.43%), and the percentage of youth who were affected by social networks reached (35.83%) (GASTAT, 2019). Recently, Saudi Arabia's total population was 36.68 million in January 2023, there were 36.31 million internet users in Saudi Arabia at the start of 2023, when internet penetration stood at (99.0%), and Saudi Arabia was home to 29.10 million social media users in January 2023, equating to (79.3%) of the total population (Data reportal, 2023).

## Measures Development

The rate of social media usage was measured by posing two questions to the participants. The first question was: To what extent do you use social media networks? Participants had three response options to choose from (Always, Sometimes, Rarely). The second question was: How many hours do you spend using social media networks weekly? Participants selected their response from three options (Less than three hours, 3 to 6 hours, more than six hours). The scores of both questions were aggregated using the "Compute Variable" function in the statistical software (SPSS).

Objectives of Using social media: They were measured using ten items employing a Likert-type scale, which ranged from (Disagree, Neutral, Agree). Participants indicated their level of agreement or disagreement with each item. These statements were divided into three dimensions: four items assessing the Understanding objective, four items assessing the Guidance objective, and two items assessing the Entertainment objective. The internal consistency reliability of each dimension was assessed using Cronbach's Alpha, with a value of ( $\alpha = .73$ ) for the Understanding dimension, ( $\alpha = .71$ ) for the Guidance dimension, and ( $\alpha = .74$ ) for the Entertainment dimension.

Satisfaction Achieved from Using social media: It was measured through four dimensions (Content Delivery Satisfaction, Information Source Satisfaction, Interaction Satisfaction, Browsing Capability Satisfaction), using a Likert-type scale, ranging from (Disagree, Neutral, Agree). Participants indicated their level of agreement or disagreement with each item. The internal consistency reliability of each dimension was assessed using Cronbach's Alpha, including 12 items for Content Delivery Satisfaction ( $\alpha = .81$ ), 15 items for Information Source Satisfaction ( $\alpha = .87$ ), 12 items for Interaction Satisfaction ( $\alpha = .89$ ), and 9 items for Browsing Capability Satisfaction ( $\alpha = .81$ ).

To validate the scales, they were presented to a group of professors and experts specializing in research methodologies, media, and statistics<sup>2</sup>. They were asked to provide feedback and evaluate the scales to assess their ability to measure the intended concepts. Their comments and suggestions were taken into consideration, and the scales were revised accordingly, resulting in the final version of the scales that can be used in surveys.

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<sup>2</sup> The professors who evaluated the study measures are:

Professor Mohammed Al-Qaari, Professor of Journalism and New Media at the College of Media and Communication, Imam Mohammad ibn Saud Islamic University.

Professor Mamdouh Abdullah, Professor of Applied Statistics at the College of Media and Communication, Imam Mohammad ibn Saud Islamic University.

Professor Abdulnabi Al-Noubi, Professor of Journalism and New Media at the College of Media and Communication, Imam Mohammad ibn Saud Islamic University.

Dr. Mustafa Al-Nimr, Associate Professor of Radio and Television at the College of Media and Communication, Imam Mohammad ibn Saud Islamic University.

## Results

### 1. Participants Profiles

Out of the total of 161 participants who took part in the study, the number of males was 150 (93.2%), while there were 11 (6.8%) females. The number of participants in the age range of 18-29 years was 97 (60.2%), those aged 30-39 years were 17 (10.6%), those aged 40-49 years were 26 (16.1%), and 21 (13%) were aged 50 years and older.

The number of students with an educational level of high school or lower was 23 (14.3%), those with a bachelor's degree were 106 (65.8%), and those with postgraduate education were 32 (19.9%). The largest number of participants were unemployed at 76 (47.2%), followed by civil government employees at 36 (22.4%), then private sector employees at 28 (17.4%), followed by self-employed individuals at 16 (9.9%), and finally military personnel at 5 (3.1%).

Regarding marital status, 100 participants (62.1%) were single, followed by 56 (34.8%) who were married, and 5 (3.1%) were divorced or widowed. In terms of participants' monthly income, 86 (53.4%) had a monthly income of less than 5,000 Saudi Riyals, while 20 (12.4%) had a monthly income between 5,000 to 10,000 Saudi Riyals. The number of participants with a monthly income exceeding 10,000 Saudi Riyals was 55 (34.2%), as indicated in Table 1.

**Table 1:** Participant Characteristics.

Percentage	Frequency	Characteristics	
150	93.2	Male	Gender
11	6.8	Female	
97	60.2	18-29 years	Age
17	10.6	30 - 39 years	
26	16.1	40 - 49 years	
21	13.0	50 years and older	
23	14.3	High School or Less	Educational Level
106	65.8	College Graduate	
32	19.9	Postgraduate Studies	
100	62.1	Single	Marital Status
56	34.8	Married	
5	3.1	Divorced or Widowed	
36	22.4	Civil Government Employee	Occupation
5	3.1	Government Military Employee	
28	17.4	Private Sector Employee	
16	9.9	Self-Employment	
76	47.2	I don't work	Monthly Income
86	53.4	Less than 5,000 SR	
20	12.4	From 5,000 to 10,000 SR	
55	34.2	More than 10,000 SR	
161	100 (each group)	Total	

## 2. Descriptive Analysis Results

### 2.1 Social Media Usage

As indicated in Table (2), the majority of the participants (91.3%) use social media platforms continuously, while (8.7%) of them use social media sporadically (sometimes).

**Table 2:** Social Media Usage Rate in Saudi Society.

Percentage	Frequency	Usage Rate
91.3	147	Always
8.7	14	Sometimes
0.0	0	Rarely
100.0	161	Total

The WhatsApp application ranks at the forefront as the most used social media platform by the participants (Mean = 2.81, SD = 0.503), as shown in Table (3). It is followed by Snapchat (Mean = 2.42, SD = 0.933), then X (Mean = 2.35, SD = 0.944), YouTube (Mean = 2.30, SD = 0.805), TikTok (Mean = 2.06, SD = 1.158), Instagram (Mean = 1.77, SD = 1.108), LinkedIn (Mean = 0.66, SD = 0.923), Google Video (Mean = 0.65, SD = 0.876), Blogs (Mean = 0.55, SD = 0.814), and finally, Facebook (Mean = 0.35, SD = 0.692).

**Table 3:** Most Used Social Media Platforms by Participants.

Social Networks	Always	Sometimes	Rarely	Not follow	Weighted Mean	Standard Deviation
YouTube	f	77	61	17	2.30	0.805
	%	47.8	37.9	10.6		
LinkedIn	f	9	23	33	0.66	0.923
	%	5.6	14.3	20.5		
TikTok	f	82	36	13	2.06	1.158
	%	50.9	22.4	8.1		
Blogs	f	5	18	37	0.55	0.814
	%	3.1	11.2	23.0		
Google Video	f	7	22	39	0.65	0.876
	%	4.3	13.7	24.2		
X	f	96	38	14	2.35	0.944
	%	59.6	23.6	8.7		
Facebook	f	4	8	28	0.35	0.692
	%	2.5	5.0	17.4		
Instagram	f	52	52	25	1.77	1.108
	%	32.3	32.3	15.5		
Snapchat	f	105	32	11	2.42	0.933
	%	65.2	19.9	6.8		
WhatsApp	f	137	20	2	2.81	0.503
	%	85.1	12.4	1.2		

According to Table (4), the results revealed that the largest percentage of participants, (44.7%), spend 3-6 hours weekly on social media, while (42.9%) of them spend more than 6 hours weekly. In contrast, (12.4%) of the participants spend less than 3 hours weekly on social media.

**Table 4:** Number of Hours Spent Weekly Using Social Media.

Percentage	Frequency	Number of Hours
12.4	20	Less than 3 hours
44.7	72	From 3 to 6 hours
42.9	69	More than 6 hours
100.0	161	Total

Additionally, the results presented in Table (5) indicate that nearly two-thirds of the participants, (65.2%), rely heavily on social media to fulfill their cognitive needs, while (31.7%) of them rely on it to a moderate extent. Only (3.1%) of the participants rely on social media to a low degree in meeting their cognitive needs.

**Table 5:** Degree of Participants' Reliance on Social Media to Meet Their Knowledge Needs.

Percentage	Frequency	Number of Hours
3.1	5	Low
31.7	51	Medium
65.2	105	High
100.0	161	Total

## 2.2 Objectives of Using Social Media in the Saudi Society

The results indicated that participants have cognitive, behavioral, and emotional objectives for using social media, with the overall objectives achieving a high degree (Mean= 2.68, SD= 0.296), as presented in Table 6. Understanding objectives ranked first (Mean= 2.75, SD= 0.333), followed by behavioral objectives (Mean= 2.66, SD= 0.379), and then emotional objectives, which closely approached the behavioral objectives (Mean= 2.65, SD= 0.486).

**Table 6:** Objectives of Participants in Using Social Media.

Usage Objectives	Answers	Mean	SD
Understanding (Cognitive) Mean = 2.75 SD = 0.333	Tracking the latest developments in all fields in Saudi Arabia.	2.86	0.385
	Understanding the dimensions of ongoing transformations in citizen development in Saudi Arabia.	2.70	0.523
	Tracking the latest developments in all fields worldwide.	2.70	0.501
	Feeling the need to Know What's Happening in the World.	2.75	0.503
Guidance (Behavioral) Mean = 2.66 SD = 0.379	To gain a clear vision on how to adapt and operate amidst new global changes.	2.55	0.602
	Searching for new information to meet my personal Needs.	2.83	0.407
	The desire to raise and discuss topics that interest me on a personal level.	2.51	0.690
Entertainment (Emotional) Mean = 2.65 SD = 0.486	Following a specific issue or topic.	2.73	0.497
	Spending leisure time.	2.71	0.520
	The behavior I have consistently adopted.	2.58	0.608
Overall Usage Objectives		2.68	0.296

## 2.3 Interacting with the Topics Discussed on Social Media Platforms

The results show that the majority of the participants, 56.5%, benefited to some extent from participating and interacting with topics on social media platforms. Additionally, 39.8% of them benefited to a high degree, while 3.7% did not benefit from participation and interaction, as shown in Table 7.

**Table 7:** The Degree of Benefiting from the Participation and Interaction of the Respondents in the Global Topics and Variables Discussed by Social Media Means.

Percentage	Frequency	The degree of benefit
3.7	6	Not useful
56.5	91	Moderately useful
39.8	64	Highly useful
100.0	161	Total

As shown in Table 8, the level of interaction through content sharing on social networks was the highest and the only one to achieve a high degree (Mean = 2.42, SD = 0.628), followed by interaction through likes or comments at a moderate level (Mean = 2.24, SD = 0.748), then interaction through commenting and writing about the content presented by the platform (Mean = 1.73, SD = 0.716), and finally, communication with the sender (Mean = 1.52, SD = 0.717).

**Table 8:** Interaction Style and Level with Topics Addressed by Social Media.

SD	Mean	Interaction style
0.748	2.24	Like or Favorite
0.716	1.73	Comment
0.717	1.52	Communication with the sender
0.628	2.42	Sharing content with friends on social media
0.758	1.73	Writing about the content the medium addresses
0.519	1.93	Total

The most prominent drawbacks facing the participants in using social networks, as shown in Table 9, are: exaggeration and amplification of certain topics (Mean = 2.77, SD = 0.464), spreading rumors (Mean = 2.77, SD = 0.515), followed by sharing topics briefly and not displaying them in full (Mean = 2.56, SD = 0.600), then downplaying and diminishing some topics (Mean = 2.53, SD = 0.582), and finally, the weakness of ideas and processing, and the inadequacy in using multimedia (Mean = 2.48, SD = 0.623).

**Table 9:** Major Drawbacks Faced by the Participants When Using Social Media.

SD	Mean	The most prominent drawbacks
0.600	2.56	Posting topics briefly and not displaying them in full
0.464	2.77	Exaggerating and inflating some topics
0.582	2.53	Minimizing and reducing some topics
0.515	2.77	Spreading some rumors
0.623	2.48	Weakness in idea, processing, and shortcomings in using multimedia
0.351	2.62	Total

## 2.4 Achieved Satisfactions from Using Social Media

### 2.4.1 The Satisfactions Achieved from Using Social Media in Terms of Media Content Delivery Methods

The results indicated that the participants achieved a high level of satisfaction with the methods of delivering media content on social media platforms (Mean = 2.45, SD = 0.349), as shown in Table 10. The highest level of satisfaction was related to Novelty (Mean = 2.60, SD = 0.459), followed by Splendor (Mean = 2.59, SD = 0.427), then Being There (Mean = 2.40, SD = 0.523). Realism was the only satisfaction from the satisfaction with Content Delivery Methods that was achieved at a moderate level (Mean = 2.22, SD = 0.511).

**Table 10:** Satisfaction Achieved from Using Social Media for Delivering Media Content Methods.

SD	Mean	sentences	Content delivery method satisfactions
0.661	2.27	Because the content is real and not fake	Realism Mean = 2.22, SD = 0.511
0.726	2.07	Because it resembles face-to-face communication	
0.618	2.32	Because it allows me to express myself authentically and gives me an experience that closely resembles real-life	
0.560	2.52	If the elements used are unique	Splendor Mean = 2.59, SD = 0.427
0.516	2.60	If the elements used are distinctive	
0.551	2.65	If the overall style of presenting the content is excellent	
0.562	2.65	If the style of presenting the content is new	Novelty Mean = 2.60, SD = 0.459
0.585	2.60	If the modern technology used is innovative	
0.600	2.56	If it is distinguished by qualitative diversity	
0.651	2.38	It makes me present in places where I can physically be	Being There Mean = 2.40, SD = 0.523
0.678	2.37	It makes me feel the experience of being present in distant environments	
0.659	2.43	The feeling of being able to experience many things without experiencing them in reality	
0.349	2.45	The satisfactions achieved through the methods of presenting media content	

### 2.4.2 Satisfaction Achieved Through the Use of Social Media on the Level of Information Sources

As shown in Table 11, the results revealed a high degree of satisfaction with the information source on social media among the participants (Mean= 2.50, SD= 0.366). Virtual community building satisfactions ranked first (Mean= 2.63, SD= 0.448), followed by satisfactions with the impact of bandwagon (Mean= 2.61, SD= 0.436). Additionally, satisfactions with filtering choices or preferences were noted (Mean= 2.50, SD= 0.466), followed by satisfactions with enhancing the media institution (Mean= 2.48, SD= 0.509). Lastly, satisfaction with media ownership, the only satisfaction from the information source that was moderate (Mean= 2.30, SD= 0.525).

**Table 11:** Satisfaction Achieved from Using Social Media in Terms of Information Source.

SD	Mean	sentences	Satisfactions from the Information Source
0.537	2.61	It allows me to have an opinion	Agency
0.685	2.36	t provides me with the opportunity to affirm my identity	Enhancement
0.661	2.45	It gives me the ability to broadcast to my followers and send my ideas to many people	Mean = 2.48, SD = 0.509
0.429	2.78	It allows me to communicate with others	Building Virtual
0.595	2.60	It provides me with the opportunity to expand my social network and build social relationships	Communities
0.663	2.49	It makes me realize that I am a part of the community	Mean= 2.63, SD= 0.448
0.426	2.76	It allows me to benefit from the experiences of others	Bandwagon
0.536	2.62	It provides me with the opportunity to develop my expertise	Mean= 2.61, SD= 0.436
0.670	2.45	It makes me realize that I am a part of the community	
0.575	2.59	It allows me the opportunity to set my preferences	Filtering
0.720	2.32	It enables me to avoid seeing things I don't want to see	Mean= 2.50, SD= 0.466
0.564	2.59	It enables me to filter information and share it with others	
0.665	2.21	I feel it's mine when using it	Ownership
0.650	2.30	The content will stand out as a true reflection of my personality	Mean= 2.30, SD= 0.525
0.644	2.39	It allows me a space for suitable modification	
0.366	2.50	The satisfactions achieved at the level of the information source	

### 2.4.3 The Satisfaction Achieved from Using Social Media in Terms of Interaction

The results showed a high level of satisfaction with interactive experiences on social media platforms among the participants (Mean= 2.39, SD= 0.441), as presented in Table 12. Interaction satisfaction ranked first (Mean= 2.48, SD= 0.508), followed by satisfaction with dynamic control (Mean= 2.43, SD= 0.546), then satisfaction with effectiveness or activity (Mean= 2.38, SD= 0.544), and finally satisfaction with responsiveness. Satisfaction with responsiveness was the only aspect of interactive satisfaction that achieved a moderate level (Mean= 2.28, SD= 0.582).



**Table 12:** Satisfaction Achieved from Using Social Media at the Level of Interaction.

SD	Mean	sentences	Interactional satisfactions
0.671	2.47	I expect to interact with the content	Interaction Mean = 2.48, SD = 0.508
0.642	2.46	I can perform various interactive tasks	
0.613	2.52	It allows me to continuously specify my preferences and needs	
0.662	2.39	Because it responds to my commands	Activity Mean = 2.38, SD = 0.544
0.623	2.39	Because it effectively responds to my questions	
0.651	2.38	Because it anticipates my needs	
0.699	2.20	Because it gives me control	Responsiveness Mean = 2.28, SD = 0.582
0.689	2.25	Because it allows me to be responsible	
0.653	2.39	Because it enables me to control the degree of my interaction	
0.606	2.40	Makes me feel intelligent of influencing as it seems	Dynamic Control Mean = 2.43, SD = 0.546
0.612	2.45	Enables me to influence what I know	
0.669	2.44	Feeling of responsibility	
0.441	2.39	Interactivity-related satisfactions	

#### 2.4.4 Satisfaction Achieved from Using Social Media in Terms of Browsing Ability

As shown in Table 13, the results revealed a high level of satisfaction in the ability to browse social media networks among the respondents (Mean = 2.57, SD = 0.378). Browsing satisfactions ranked first (Mean = 2.71, SD = 0.425), followed by satisfactions with the guidance and navigation assistance (Mean = 2.52, SD = 0.462), and finally, satisfactions related to play or fun (Mean = 2.48, SD = 0.563).

**Table 13:** Satisfaction Achieved from Using Social Media in Terms of Browsing Ability.

SD	Mean	sentences	Satisfactions of browsing
0.433	2.75	It allows me to access a variety of information	Browsing Mean = 2.71, SD = 0.425
0.493	2.68	It allows me to browse through various links	
0.513	2.70	It allows me to navigate freely with things that align with my interests	Guidance assistance means Mean = 2.52, SD = 0.462
0.623	2.47	An interface that assists me at every step of the way	
0.534	2.63	An easy-to-use and explore tool	
0.633	2.48	Because it confirms before taking any action	Play or fun Mean = 2.48, SD = 0.563
0.575	2.65	Because it allows me to have fun and explore	
0.689	2.46	Because it lets me play	
0.799	2.34	Because it makes me enjoy escaping to a different world	
0.378	2.57	Browsing capabilities satisfaction	

### 3. Hypotheses Test

Hypothesis 1: There is a positive correlation between the rate of use of social media by the participants and the satisfactions they derive from using it.

The Pearson correlation test revealed a weak positive correlation between the participants' rate of social media use and their satisfactions, with the most statistically significant relationship being with satisfaction from the information source ( $r = 0.262$ ,  $P = 0.001$ ), followed by satisfaction with interactivity ( $r = 0.211$ ,  $P = 0.007$ ), then satisfaction with browsing capability ( $r = 0.202$ ,  $P = 0.010$ ), and finally satisfaction with content presentation methods ( $r = 0.165$ ,  $P = 0.037$ ).

Hypothesis 2: There are significant differences in the satisfactions achieved by the participants from their use of social media based on their demographic variables. To test this hypothesis, a t-test was used to measure differences between males and females, and a one-way analysis of

variance (ANOVA) was used to measure differences among categories of the following variables: age, education level, marital status, occupation, and monthly income level.

**1. Differences according to gender:**

The t-test showed no significant effect of the gender variable on satisfaction with content presentation methods, interactivity, and browsing capabilities; the test failed to find statistically significant differences between males and females. On the other hand, the t-test revealed an impact of the gender variable on satisfaction with information sources (Males mean = 2.49, Females mean = 2.74), with statistically significant differences found ( $t = -2.252$ ,  $df = 159$ ,  $P = .011$ ). These differences favored females, indicating that satisfaction with information sources was higher among females compared to males. Table 14 presents these results.

**Table 14:** T-test to Measure the Differences in Satisfactions Achieved from Using Social Media Networks According to the Gender Variable.

Sig. (2-tailed)	Std. Error Mean	Std. Deviation	Mean	N	Gender	satisfactions achieved
.132	-1.514-	.35193	2.4417	150	Male	Satisfactions in Content Presentation Methods
		.27661	2.6061	11	Female	
.026	-2.252-	.36663	2.4853	150	Male	Satisfactions with Information Source
		.26742	2.7394	11	Female	
.099	-1.658-	.43996	2.3789	150	Male	interactive Satisfactions
		.42014	2.6061	11	Female	
.133	-1.509-	.38098	2.5600	150	Male	Browsing Satisfaction
		.29927	2.7374	11	Female	

**2. Differences According to Age**

The analysis of variance (ANOVA) test showed no significant effect of age on satisfaction with content delivery methods and browsing ability, as the test failed to find statistically significant differences among different age groups. However, the ANOVA test revealed an impact of age on satisfaction with information source and interactive satisfaction, as presented in Table 15.

**Table 15:** ANOVA Test to Measure Differences in Satisfactions Achieved from Using Social Media Networks According to the Variable of Age.

Sig.	F	Mean Square	df	Sum of Squares	satisfactions achieved
.286	1.272	.154	3	.463	Between Groups
		.121	157	19.034	Within Groups
			160	19.497	Total
.030	3.056	.394	3	1.181	Between Groups
		.129	157	20.223	Within Groups
			160	21.404	Total
.001	6.064	1.078	3	3.233	Between Groups
		.178	157	27.902	Within Groups
			160	31.136	Total
.051	2.655	3.233	3	1.103	Between Groups
		27.902	157	21.742	Within Groups
			160	22.845	Total

This implies that age influences satisfaction with the information source and interactive satisfaction. To identify the source of differences, the Least Significant Difference (LSD) test was used. The LSD test indicated significant differences in satisfaction with the information source between the age group (18-29 years) and the age group (30-39 years). The differences favored the younger age group (18-29 years), with an average of 2.55, compared to the older age group (30-39 years) with an average of 2.31. This means that the younger age group achieved higher satisfaction with the information source than the older age group.

The test also revealed statistically significant differences in interactive satisfaction between age groups (18-29 years and 40-49 years) on one hand, and age groups (30-39 years and 50 years and above) on the other hand. The differences favored age groups (18-29 years and 40-49 years), indicating that these age groups achieved higher interactive satisfaction compared to age groups (30-39 years and 50 years and above).

### 3. The Differences According to the Educational Level

The test of one-way analysis of variance (ANOVA) showed no significant effect of the educational level variable on the satisfaction with content delivery methods, information source satisfaction, and interactivity satisfaction. The test failed to find statistically significant differences between different educational levels. On the other hand, the ANOVA test indicated a significant effect of the educational level variable on satisfaction with browsing capabilities, as presented in Table 16.

**Table 16:** ANOVA Test to Measure Differences in Satisfactions Achieved from Using Social Media Networks According to the Educational Level Variable.

Sig.	F	Mean Square	df	Sum of Squares	satisfactions achieved	
.097	2.372	.284	2	.568	Between Groups	Content Delivery Methods Satisfaction
		.120	158	18.929	Within Groups	
			160	19.497	Total	
.109	2.247	.296	2	.592	Between Groups	Information Source Satisfaction
		.132	158	20.813	Within Groups	
			160	21.404	Total	
.114	2.205	.423	2	.846	Between Groups	Interactive Satisfaction
		.192	158	30.290	Within Groups	
			160	31.136	Total	
.033	3.486	.483	2	.966	Between Groups	Browsing Satisfaction
		.138	158	21.879	Within Groups	
			160	22.845	Total	

This means that the educational level variable affects satisfaction with browsing capabilities. To identify the source of differences, the LSD post hoc test was used, revealing statistically significant differences in information source satisfaction between bachelor's degree holders and postgraduate students, with the advantage in favor of bachelor's degree holders. This implies that satisfaction with browsing capabilities is higher among bachelor's degree holders than among postgraduate students.

#### 4. The Differences According to the Monthly Income Level

The one-way analysis of variance (ANOVA) test revealed no significant effect of the variable of monthly income level on all forms of satisfactions (content presentation satisfaction, information source satisfaction, interaction satisfaction, and browsing ability satisfaction). The test failed to find statistically significant differences between different income level categories. This result indicates that the variable of monthly income level does not affect the satisfactions achieved by the participants in using social media networks, as illustrated in Table 17.

**Table 17:** ANOVA Test to Measure the Differences in Satisfactions Achieved from Using Social Media Networks According to the Variable of Monthly Income level.

Sig.	F	Mean Square	df	Sum of Squares	satisfactions achieved	
.745	.295	.036	2	.073	Between Groups	Content Delivery Methods Satisfaction
		.123	158	19.424	Within Groups	
			160	19.497	Total	
.171	1.785	.237	2	.473	Between Groups	Information Source Satisfaction
		.132	158	20.931	Within Groups	
			160	21.404	Total	
.051	3.063	.581	2	1.162	Between Groups	Interactive Satisfaction
		.190	158	29.973	Within Groups	
			160	31.136	Total	
.058	2.894	.404	2	.807	Between Groups	Browsing Satisfaction
		.139	158	22.037	Within Groups	
			160	22.845	Total	

#### Discussion and Conclusions

The study aimed to explore the uses of social media and the satisfactions derived from them in Saudi society, from the perspective of the modern orientations of the Uses and Gratifications theory, which is compatible with social media. The study employed an electronic questionnaire to collect data from a sample of 161 individuals in Saudi society, selected using the snowball sampling method, which aligns with the nature of distributing surveys through social media. The study reached several results and provided numerous contributions and insights into the modern satisfactions achieved through social media in Saudi society, as well as the role of demographic variables of the participants in Saudi society in influencing social media satisfactions.

The results revealed a high use of social media among the participants, consistent with global reports and statistics on the use of social media in the Kingdom of Saudi Arabia. The Global Report (Digital 2023) issued by (We Are Social) in January 2023 indicated that 79.3% of the population in Saudi Arabia uses social media. Saudi nationals (above the age of 16) spend an average of 3.01 hours daily on social media, which is approximately half an hour more than the global average of 2.31 hours. Saudi Arabia ranks sixth globally in the number of social media platforms used, with an average of 7.9 platforms per user, exceeding the global average of 7.2.

These findings align with a study by (Al-Shalhoub, 2020), which revealed that the Saudi audience relies significantly on X to obtain information about Saudi societal issues.

The results also revealed that approximately two-thirds of the sample (65.2%) rely to a high degree on social media to meet their knowledge needs. This is a high percentage, particularly when considering other means that fulfill individuals' knowledge needs, such as traditional media like newspapers, television, and radio, as well as knowledge-building institutions like family and school. This result indicates that social media has competed with other media and institutions in meeting individuals' knowledge needs, with people increasingly relying on them to satisfy those needs.

However, this poses a challenge since the content shared on social media is not subject to the same level of scrutiny and control as content from other sources. Consequently, inaccurate or false information spreads quickly through social media, including rumors that individuals may accept as facts and contribute to their dissemination. This underscores the need to reconsider the sources shaping the knowledge of Saudi individuals, raise awareness, and educate on how to deal with the content of these platforms. It also emphasizes the importance of fostering critical and analytical thinking when receiving information and knowledge through social media.

The results also clarified that "WhatsApp" tops the list, followed by "Snapchat," then "X," as the most widely used social media platforms by Saudis. This finding may not align with previous studies that identified X as the most used social media platform by Saudis, as indicated in studies by (Al-Barak, 2021), (Al-Munea and Al-Aqeel, 2021), (Matou, 2018), (Alfadl, 2013), and others. The shift in WhatsApp's popularity could be attributed to recent updates introduced by Meta to WhatsApp, such as the addition of channels that allow users to follow, and administrators to send messages to followers while maintaining the privacy of the channel owner's profile and user information. Users can interact with channel content without revealing their personal data, and others cannot see the type of channels the user follows. The enhanced privacy features may align with the cultural norms of Saudi society, making WhatsApp the preferred platform and placing it as the first choice among social media networks.

The study revealed that individuals use social media platforms for various purposes, with the primary goal being understanding, followed by behavioral guidance and entertainment. All these goals were achieved with high scores. Therefore, individuals primarily use social media to acquire knowledge and experiences, stay informed about the world around them, and engage in discussions on different topics. Behavioral guidance goals come next, where individuals seek information to help them navigate situations and participate in discussions. These goals align closely with entertainment goals, indicating that Saudi individuals use social media for both informational and recreational purposes.

And these results confirm that despite the initial focus of social media on facilitating communication and social interaction among individuals, over time, their uses have evolved into media and marketing platforms. This evolution has played a role in raising cognitive awareness among individuals and providing them with information that expands their knowledge and understanding. The Saudi society has benefited from this feature, actively seeking to fulfill its cognitive needs through various forms of social media platforms.

In light of the modern trends of the Uses and Gratifications theory and interactive satisfactions, which assume that new media, with its technological capabilities, creates new needs for individuals by providing satisfactions that they were not accustomed to before. This contrasts

with the traditional concept of the theory, which views individuals seeking satisfaction of their needs through the use of traditional media. The results of the current study affirm the validity of the new assumption of the theory. Social media platforms provided individuals with various forms of modern satisfactions that were not previously experienced through traditional media. These satisfactions were achieved at high levels, with the satisfaction of the ability to browse leading the way. This satisfaction includes the ease of using the interfaces of social media applications, facilitating browsing and searching for information the user desires. There are various mechanisms that allow users easy search, including automatic hashtag (#) search and searching in the internal search box of each social media platform. This result indicates that Saudi individuals do not face many challenges in using and navigating social media platforms.

The satisfaction from the source of information came in the second place, where the respondents agreed to a high degree on achieving diverse satisfactions at the level of their transformation from information receivers to information sources. These platforms primarily allowed the Saudi individual to engage in new virtual communities, then benefit from the varied knowledge and experiences of others. To a lesser extent, it made them feel like the real owners of the medium. Consequently, they can publish and modify as they wish. These results reflect the Saudi individual's orientation in dealing with these platforms, considering them as a source of information. They still view them from the perspective of being information receivers more than seeing themselves as information sources. They are more interested in achieving entry satisfactions in new communities and benefiting from the experiences of others. Consequently, the Saudi individual agrees to move in the direction of the majority (the bandwagon effect) more than launching independently as the owner of the medium and publishing their ideas and views.

At the level of content presentation satisfactions, we find that the satisfactions of novelty and splendor have been achieved to a higher degree than realism. This result implies that Saudi society has benefited from the diversity of media used in content presentation and the methods used to present content through social media. It perceives these forms of content presented through social media as new, distinctive, and attractive. However, at the same time, their reliability is considered average in terms of the content's accuracy and the degree of resemblance to face-to-face communication. The Saudi individual sees that despite the attractiveness of the presented content and the variety of visual presentation methods used, these means have allowed some to exploit modern technologies and presentation methods to disseminate fake content, spread rumors and fake news. Additionally, some individuals hide behind these means, making it difficult to ascertain their true identity. Therefore, communication through these means does not closely resemble real-life communication.

The results at the level of interactive satisfactions show that the participants agree to a high degree on achieving interaction satisfactions. Conversely, they agree to a moderate degree on achieving response and effectiveness satisfactions. This means that the Saudi individual perceives that these means have provided good mechanisms for interaction, enabling them to engage in various interactive tasks. However, at the same time, these means have not provided them with a high level of control and management, due to limitations in their responsiveness as mediums for what the user wants, weakness in responding to their questions, and meeting their needs. Therefore, we expect that the effectiveness, activity, and responsiveness of these means to the needs of the Saudi individual and others around the world will increase when integrated with artificial intelligence applications that have the significant ability to fulfill user commands.

The results indicated a weak positive correlation between the participants' usage rate of social media and the achieved satisfactions. In other words, as an individual's use of social media increases, their rate of achieving modern satisfactions also rises. Given the weak correlation and the high achievement of most satisfactions, this implies that the differences in achieving satisfactions between high and low users of social media are minor. To verify this, we conducted a one-way Analysis of Variance (ANOVA) test to measure differences in achieved satisfactions based on the usage rate of social media. The test results revealed no statistically significant differences in achieved satisfactions (satisfactions with content restrictions, interactive satisfactions, and browsing capabilities) between low, moderate, and high users. However, statistical differences were observed in information source satisfactions between low and high users, favoring high users. This means that these satisfactions in content delivery methods, interactivity, and browsing capabilities were achieved at high levels for the majority of social media users, whether they used these platforms at high or low rates. This result leads us to another conclusion: Modern satisfactions from social media are realized even for users who have low usage. This supports the theory suggesting that new media creates satisfactions rather than individuals seeking to fulfill their needs through them. An individual seeking to satisfy their needs through traditional media will use those media extensively, achieving higher satisfactions than an individual who uses them minimally, due to the absence of needs sought through that usage. In contrast, new media will create certain satisfactions for users, whether they use them extensively or minimally, resulting in similar levels of satisfaction for all users.

The results revealed the impact of some demographic variables on the satisfactions achieved by the participants through social media. Gender and age had an effect on information source satisfactions in favor of females and younger participants. Meanwhile, education influenced browsing capabilities satisfactions in favor of those with lower education levels. The influence of age and gender on information source satisfactions for females and younger participants suggests that females and younger individuals are more present in building virtual communities and benefiting from sharing ideas, feeling ownership of the platform. This might be attributed to the fact that younger participants and females have sufficient time to use these networks and benefit from them as a source of information dissemination. In contrast, males and older individuals are more occupied with work, lacking sufficient time to utilize these platforms as a means of sharing information. They often limit themselves to following what others post. Therefore, the more time individuals have to use social media, the more they can create creative content, utilize the capabilities of social media platforms for content dissemination, and consequently achieve greater satisfaction in being a source of information.

## **Acknowledgments**

First and foremost, I would like to thank my academic department (Journalism and New Media Department) and my university (Imam Mohammad Ibn Saud Islamic University) for their scientific support through organizing courses and workshops related to publishing scientific research. I am also grateful to thank my colleagues for their feedback and support throughout the research process. In particular, I would like to thank Dr. Mohamad Alqaari, the Professor of Journalism and New Media, for his valuable insights and suggestions.

Also, I would like to thank all the participants in this study for their time and willingness to share their experiences. Their contributions have been invaluable in helping us to understand the topic and draw meaningful conclusions.

## **Declaration of Interest Statement**

The author declare that I have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## **References**

1. Al-Barak, Nasser, (2021). The Saudi public's reliance on the social media accounts of Islamic institutions for information about the COVID-19 pandemic: A field study. *Journal of Media Research and Studies*, 16(16), 1-89.
2. Albert, A. (2009). Connecting and communicating on Facebook, a field study on the uses of Arab youth in Egyptian University. A paper presented to the 14th Annual conference (AUSACE), Morocco.
3. Al-Fadl, Sulwa (2013). Dimensions of Saudi youth's use of social media: A field study on a sample of male and female students at King Saud University. Master's supplementary research, Riyadh: King Saud University, Department of Social Studies, College of Arts.
4. Al-Munayi, Ali, & Al-Oqail Faisal, (2021). The reliance of social media users in Saudi Arabia on the media spokesperson's discourse of the Ministry of Health during the COVID-19 crisis. *Egyptian Journal of Media Research*, 76, 177-233.
5. Al-Shalhoub, Abdulmalik, (2020). The extent of the Saudi public's reliance on social media in understanding societal issues: A survey study in Riyadh City. *Journal of King Abdulaziz University, Arts and Humanities Sciences*, 28(4), 75-122.
6. Datareportal, (2023, 02 12) . DIGITAL 2023: SAUDI ARABIA. Data reportal. Retrieved 10 08, 2023, from <https://datareportal.com/reports/digital-2023-saudi-arabia>.
7. GASTAT, (2019, 27 12). (98.43%) of Saudi Youth on Social Networking Sites. the General Authority for Statistics. Retrieved 10 08, 2023, from <https://www.stats.gov.sa/en/news/365>.
8. Karimi, L., Khodabandelou, R., & Ehsani, M. and Ahmad, M. (2014). Applying the Uses and Gratifications Theory to Compare Higher Education Students' Motivation for Using Social Networking Sites: Experiences from Iran, Malaysia, United Kingdom, and South Africa. *Contemporary Educational Technology*, 5 (1), 53-72.
9. Lineberry, Z. X. (2012). Use and gratifications on social networking sites: Analysis of use and value of social networking sites for three types of social capital on college students. master thesis, journalism and mass communication Dept., Iowa State University.
10. Matou, Anmar (2018). The concept and awareness of Saudi youth about the Vision 2030 of the Kingdom of Saudi Arabia: A field study on students of King Abdulaziz University. *Journal of King Abdulaziz University, Arts and Humanities Sciences*, 26(3), 173-191.
11. Stavrositu C., & Sundar S. S. (2012). Does blogging empower women? Exploring the role of agency and community. *Journal of Computer-Mediated Communication*, 17, 369–386.
12. Sundar S. S. (2008). The MAIN model: A heuristic approach to understanding technology effects on credibility. In Metzger M. J., Flanagan A. J. (Eds.), *Digital media, youth, and credibility* (pp. 72–100). Cambridge, MA: MIT Press.
13. Sundar, S. S., & Limperos, A. M. (2013). Uses and Grats 2.0: New Gratifications for New Media. *Journal of Broadcasting & Electronic Media* 57 (4): 504-525.
14. Sundar S. S., Tamul D. J., & Wu M. (2014). Capturing “cool”: Measures for assessing coolness of technological products. *International Journal of Human-Computer Studies*, 72, 169–180.
15. We Are Social, (2021). Digital 2023. Retrieved at 23 Oct. 2023. From: <https://wearesocial.com/us/blog/2023/01/digital-2023/>



- Ahmad, A. Y. B., Kumari, D. K., Shukla, A., Deepak, A., Chandnani, M., Pundir, S., & Shrivastava, A. (2024). Framework for Cloud Based Document Management System with Institutional Schema of Database. *International Journal of Intelligent Systems and Applications in Engineering*, 12(3s), 672-678.
- Ahmad, A. Y. B., Kumari, D. K., Shukla, A., Deepak, A., Chandnani, M., Pundir, S., & Shrivastava, A. (2024). Framework for Cloud Based Document Management System with Institutional Schema of Database. *International Journal of Intelligent Systems and Applications in Engineering*, 12(3s), 672-678.
- Ahmad, A. Y. B., Tiwari, A., Nayeem, M. A., Biswal, B. K., Satapathy, D. P., Kulshreshtha, K., & Bordoloi, D. (2024). Artificial Intelligence Perspective Framework of the Smart Finance and Accounting Management Model. *International Journal of Intelligent Systems and Applications in Engineering*, 12(4s), 586-594.
- Ahmad, A., Abusaimh, H., Rababah, A., Alqsass, M., Al-Olima, N., & Hamdan, M. (2024). Assessment of effects in advances of accounting technologies on quality financial reports in Jordanian public sector. *Uncertain Supply Chain Management*, 12(1), 133-142.
- Ahmad, A. (2024). Ethical implications of artificial intelligence in accounting: A framework for responsible ai adoption in multinational corporations in Jordan. *International Journal of Data and Network Science*, 8(1), 401-414.
- Ahmad Y. A. Bani Ahmad, "Firm Determinants that Influences Implementation of Accounting Technologies in Business Organizations," *WSEAS Transactions on Business and Economics*, vol. 21, pp. 1-11, 2024
- Ahmad, A. Y. B., William, P., Uike, D., Murgai, A., Bajaj, K. K., Deepak, A., & Shrivastava, A. (2024). Framework for Sustainable Energy Management using Smart Grid Panels Integrated with Machine Learning and IOT based Approach. *International Journal of Intelligent Systems and Applications in Engineering*, 12(2s), 581-590.
- Ahmad, A. Y. B., Gongada, T. N., Shrivastava, G., Gabbi, R. S., Islam, S., & Nagaraju, K. (2023). E-Commerce Trend Analysis and Management for Industry 5.0 using User Data Analysis. *International Journal of Intelligent Systems and Applications in Engineering*, 11(11s), 135-150.
- Alhawamdeh, H., Al-Saad, S. A., Almasarweh, M. S., Al-Hamad, A. A.-S. A., Bani Ahmad, A. Y. A. B., & Ayasrah, F. T. M. (2023). The Role of Energy Management Practices in Sustainable Tourism Development: A Case Study of Jerash, Jordan. *International Journal of Energy Economics and Policy*, 13(6), 321–333. <https://doi.org/10.32479/ijeeep.14724>
- Allahham, M., & Ahmad, A. (2024). AI-induced anxiety in the assessment of factors influencing the adoption of mobile payment services in supply chain firms: A mental accounting perspective. *International Journal of Data and Network Science*, 8(1), 505-514.
- Y. A. B. Ahmad, S. S. Kumari, M. S. S. K. Guha, A. Gehlot and B. Pant, "Blockchain Implementation in Financial Sector and Cyber Security System," 2023 International Conference on Artificial Intelligence and Smart Communication (AISC), Greater Noida, India, 2023, pp. 586-590, <https://doi.org/10.1109/AISC56616.2023.10085045>
- Cheng, Congbin, Sayed Fayaz Ahmad, Muhammad Irshad, Ghadeer Alsanie, Yasser Khan, Ahmad Y. A. Bani Ahmad (Ayassrah), and Abdu Rahman Aleemi. 2023. "Impact of Green Process Innovation and Productivity on Sustainability: The Moderating Role of Environmental Awareness" *Sustainability* 15, no. 17: 12945. <https://doi.org/10.3390/su151712945>
- Daoud, M. K., Al-Qeed, M., Ahmad, A. Y. B., & Al-Gasawneh, J. A. (2023). Mobile Marketing: Exploring the Efficacy of User-Centric Strategies for Enhanced Consumer Engagement and Conversion Rates. *International Journal of Membrane Science and Technology*, 10(2), 1252-1262.

- Daoud, M., Taha, S., Al-Qeed, M., Alsafadi, Y., Ahmad, A., & Allahham, M. (2024). EcoConnect: Guiding environmental awareness via digital marketing approaches. *International Journal of Data and Network Science*, 8(1), 235-242.
- Fraihat, B. A. M., Ahmad, A. Y. B., Alaa, A. A., Alhawamdeh, A. M., Soumadi, M. M., Aln'emi, E. A. S., & Alkhalwaldeh, B. Y. S. (2023). Evaluating Technology Improvement in Sustainable Development Goals by Analysing Financial Development and Energy Consumption in Jordan. *International Journal of Energy Economics and Policy*, 13(4), 348
- Lin, C., Ahmad, S. F., Ayassrah, A. Y. B. A., Irshad, M., Telba, A. A., Awwad, E. M., & Majid, M. I. (2023). Green production and green technology for sustainability: The mediating role of waste reduction and energy use. *Heliyon*, e22496.
- K. Daoud, D. Alqudah, M. Al-Qeed, B. A. Al Qaied, and A. Y. A. B. Ahmad, "The Relationship Between Mobile Marketing and Customer Perceptions in Jordanian Commercial Banks: The Electronic Quality as A Mediator Variable", *ijmst*, vol. 10, no. 2, 2718–2729. Retrieved from <https://kurdishstudies.net/menu-script/index.php/KS/article/view/831>
- Ni, L., Ahmad, S. F., Alshammari, T. O., Liang, H., Alsanie, G., Irshad, M., ... & Ayassrah, A. Y. B. A. (2023). The role of environmental regulation and green human capital towards sustainable development: The mediating role of green innovation and industry upgradation. *Journal of Cleaner Production*, 138497.
- Peng, Yixuan, Sayed Fayaz Ahmad, Ahmad Y. A. Bani Ahmad, Mustafa S. Al Shaikh, Mohammad Khalaf Daoud, and Fuad Mohammed Hussein Alhamdi. 2023. "Riding the Waves of Artificial Intelligence in Advancing Accounting and Its Implications for Sustainable Development Goals" *Sustainability* 15, no. 19: 14165. <https://doi.org/10.3390/su151914165>
- Peiran Liang, Yulu Guo, Sohaib Tahir Chauhdary, Manoj Kumar Agrawal, Sayed Fayaz Ahmad, Ahmad Yahiya Ahmad Bani Ahmad, Ahmad A. Ifseisi, Tiancheng Ji, 2024, "Sustainable development and multi-aspect analysis of a novel polygeneration system using biogas upgrading and LNG regasification processes, producing power, heating, fresh water and liquid CO<sub>2</sub>," *Process Safety and Environmental Protection*,
- Peiran Liang, Yulu Guo, Tirumala Uday Kumar Nutakki, Manoj Kumar Agrawal, Taseer Muhammad, Sayed Fayaz Ahmad, Ahmad Yahiya Ahmad Bani Ahmad, Muxing Qin, 2024. "Comprehensive assessment and sustainability improvement of a natural gas power plant utilizing an environmentally friendly combined cooling heating and power-desalination arrangement" *Journal of Cleaner Production*, Volume 436,,140387,
- Rumman, G., Alkhalzali, A., Barnat, S., Alzoubi, S., AlZagheer, H., Dalbough, M., ... & Darawsheh, S. (2024). The contemporary management accounting practices adoption in the public industry: Evidence from Jordan. *International Journal of Data and Network Science*, 8(2), 1237-1246.
- Singh, R., Gupta, N. R., & Ahmad, A. Y. (2024). An Empirical Study on Challenges of Working From Home During COVID-19 on Work-Life Domains in the Education Sector in Bengaluru. In S. Singh, S. Rajest, S. Hadoussa, A. Obaid, & R. Regin (Eds.), *Data-Driven Intelligent Business Sustainability* (pp. 111-121). IGI Global. <https://doi.org/10.4018/979-8-3693-0049-7.ch008>
- William, P., Ahmad, A. Y. B., Deepak, A., Gupta, R., Bajaj, K. K., & Deshmukh, R. (2024). Sustainable Implementation of Artificial Intelligence Based Decision Support System for Irrigation Projects in the Development of Rural Settlements. *International Journal of Intelligent Systems and Applications in Engineering*, 12(3s), 48-56.
- Yahiya Ahmad Bani Ahmad (Ayassrah), Ahmad; Ahmad Mahmoud Bani Atta, Anas; Ali Alawawdeh, Hanan; Abdallah Aljundi, Nawaf; Morshed, Amer; and Amin Dabhour, Saleh

- (2023) "The Effect of System Quality and User Quality of Information Technology on Internal Audit Effectiveness in Jordan, And the Moderating Effect of Management Support," *Applied Mathematics & Information Sciences*: Vol. 17: Iss. 5, Article 12. DOI: <https://dx.doi.org/10.18576/amis/170512>
- Zhan, Y., Ahmad, S. F., Irshad, M., Al-Razgan, M., Awwad, E. M., Ali, Y. A., & Ayassrah, A. Y. B. A. (2024). Investigating the role of Cybersecurity's perceived threats in the adoption of health information systems. *Heliyon*, 10(1).
- Alhawamdeh, H. M., & Alsmairat, M. A. (2019). Strategic decision making and organization performance: A literature review. *International review of management and marketing*, 9(4), 95.
- Alhawamdeh, H., Al-Saad, S. A., Almasarweh, M. S., Al-Hamad, A. A. S., Ahmad, A. Y., & Ayasrah, F. T. M. (2023). The role of energy management practices in sustainable tourism development: a case study of Jerash, Jordan. *International Journal of Energy Economics and Policy*, 13(6), 321-333.
- Alkhalwaldeh, B., Alhawamdeh, H., Al-Afeef, M., Al-Smadi, A., Almarshad, M., Fraihat, B., ... & Alaa, A. (2023). The effect of financial technology on financial performance in Jordanian SMEs: The role of financial satisfaction. *Uncertain Supply Chain Management*, 11(3), 1019-1030.
- Ali, O., Al-Duleemi, K., Al-Afeef, D. J., & Al-hawamdah, D. H. (2019). The Impact of the Decisions of the COBIT 5 Committee on the Effectiveness of the Internal Control Systems in the Jordanian Industrial Joint Stock Companies. *The Journal of Social Sciences Research*, 5(11), 1587-1599.
- Ali, O. A. M., Matarneh, A. J., Almalkawi, A., & Mohamed, H. (2020). The impact of cyber governance in reducing the risk of cloud accounting in Jordanian commercial banks-from the perspective of Jordanian auditing firms. *Modern Applied Science*, 14(3), 75-89.
- Al-Hawamdeh, H. M. (2020). The Intermediate Role of Organizational Flexibility in the Impact of Using Information Technology on the Efficiency of the Application of IT Governance in Jordanian Industrial Companies. *Modern Applied Science*, 14(7).

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