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The Role of Social Software in Shaping the Cultural Identity of Saudi Citizens from Their Point of View: Al-Jouf Region as A Model

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Abstract: The current research aimed to determine the impact of the social software in shaping the cultural identity of Saudi citizens at Al-Jouf region. The information explosion and technological development have led to an increase in the use of social software in Saudi society, which directs it to the importance of conducting research that works to reveal the reasons for this growing use and its impact in shaping the cultural identity of the community. Therefore, the researchers formulated the questionnaire to determine the role of social software in shaping the cultural identity, so that the questionnaire has been applied to a sample consisted of (572) of citizens of Al-Jouf region, (221) male and (351) female, (193) less than 20 years old, (252) from 20 to 40 years old, and (127) more than 40 years old. The results showed the research recommended the need to raise awareness of the importance of social software and its impact in shaping the cultural identity. With the importance of directing research towards the mechanisms of consolidating Arab and Islamic culture, with the design of specialized programs to consolidate the cultural identity among the youth in Saudi society.

Keywords: Social Software, Cultural Identity, Saudi Citizens, and Al-Jouf Region.

1 Introduction

The world is witnessing a huge technological revolution in all fields, perhaps the most prominent of which is social software, which has witnessed a great demand from different ages (Rosen 2022). The use of social software serves many areas of the cultural and social community through the exchange of information and experiences (Boyd and Ellison 2013). Social software, commonly referred to as social applications, consists of interactive and interaction tools that frequently use the Internet. The capturing, saving, and displaying of communication—which is normally written but is progressively also audio and video—are typically handled by communication technologies. Communications between a couple of individuals or a set of individuals are handled through interactive tools. By aiding the mechanics of discussion and talk, they concentrate on creating and maintaining a relationship between users (Allen 2004). In definition, social software relates to software that enables individuals to engage in cooperative behaviour, organise and shape groups, express themselves freely, engage in social interaction, and provide feedback. Another aspect of the current concept of social software would be that it permits the structured, centralised, or self-regulatory mediation of opinions between people. The ability of Web 2.0 apps to more effectively encourage interpersonal collaboration and the development of online groups than ever previously is the most significant advancement for social software. Instant connectivity and the chance to learn are two options provided by social software (Dron and Anderson 2014). Social software's ability to integrate user behaviour across time and space, in addition to facilitating connection and cooperation, is another distinguishing characteristic (Mejías 2005). This capability enables both persons and crowds to benefit from each other's knowledge. As a result social software enables one-to-one, many-to-many or one-to-many interactions (Dron and Anderson 2014). The impact of social software on societies is also significant, which made them live in a technical world and a virtual community that controls their interests (Mulgan 2019). The social software is one of the latest communication technology products as its use has extended to include cultural activity so that it directly or indirectly affects in shaping the cultural identity in society, and the most famous of them are Twitter, Facebook, Instagram, and YouTube (Çöteli 2019). Social software is a type of programme that encourages interpersonal communication and creates artefacts by combining the input of various users without the use of a predefined process (Schmidt and Nurcan 2009). Social software could be characterised as software that improves as more individuals use it. Social software is indeed a group of web-based programmes that provide network and identity management, engagement and communication, from a technical perspective. It also supports the exchange and

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management of information (Pflanzl and Vossen 2014). Moreover, social software's classification type is represented in table.1. A variety of social software platforms integrate user-contributed data in order to put the contributions together and generate a new artefact. The fusion data in like a wiki becomes one example. A different kind of social software similarly integrates contributions; for instance, a blog simply contrasts and connects data.

Table.1: **Social software's classification type (Schmidt and Nurcan 2009)**

Type	Definitions
Blog	The individual contributions on a blog have been offered separately rather than integrated; nevertheless, they can still be employed to comment other contents. A blog was employed as a means of interaction to record the course of dialogue.
Social Links	Only one individual can designate a social link, and users can establish connections with some other users, which are intended to facilitate communication between participants.
Reputation and Recommender systems	Recommender systems using consolidation and aggregation (merging) techniques from social software. These are utilised in hotels, books, etc. to compile individual reviews. Additionally, you should evaluate different user contributions that contain clear user statements or behaviour observations. In order to correlate user efforts with credibility and prevent camouflage, recommendation methods have been typically integrated with reputation mechanisms.
Wiki	Wiki authors create multimedia and text, which are then connected to provide context. Wiki additionally features a collaborative editing system combined with positive entry or locking methods as its main concept.
Social bookmarking and tagging	The tags' associated object data context has been freely chosen and has been not a portion of the architecture making a world with an unrestricted vocabulary. A series of tags, specifically cloud tags, rather than a regulated language is used to categorise objects. Antonyms and synonyms were not discovered on tags because there is an absence of hierarchical nomenclature and restricted vocabulary. A group of cooperative bookmarks that frequently overlap with tags since social bookmarking seems to be a prevalent method of organising bookmarks using tags.

A brand-new paradigm called social software was quickly taking hold in business, government, and other organisations. In the organisation, social software has been employed to endorse an innovative communication trend by switching out one-way interaction for multi-way interaction. Wikis, blogs, social networks, and other forms of social software enable joint effort and serve as vital learning process enhancers (Taloba 2022). They facilitate the production of information by giving people an easy way to communicate and work together. If the idea of culture (kultur) has been thought to have originated from soil cultivation, it is tied to soil composition and weather, or all environmental aspects. Societies develop their cultural identity in the context of their environmental circumstances and beliefs. The process of acculturation alters as a result of varies in environmental circumstances. Language, food, dress code, manners, social life, moral principles, legal system, economic framework, and aesthetics are all society's cultural aspects (Safaa 2022). Culture changes as a result of structural changes. Technology breakthroughs, social freedom, innovative patterns in human rights thinking, and social movements are only a few examples of the variables that represent change and alter the culture's nature. The mass media are also changing and gaining influence over the government and society. Since the eighteenth century, particularly in cultures wherein a mass media contributed significantly, the culture has already been shifting towards a broad society, as well as a synthetic culture known as mass culture had arisen. The mass media rise and the involvement of governmental or economic authority in such media, together with the technological revolution's rapid achievement in the eighteenth century, facilitated the mass society development and consequently, mass culture. The social software types are represented in Fig.1.

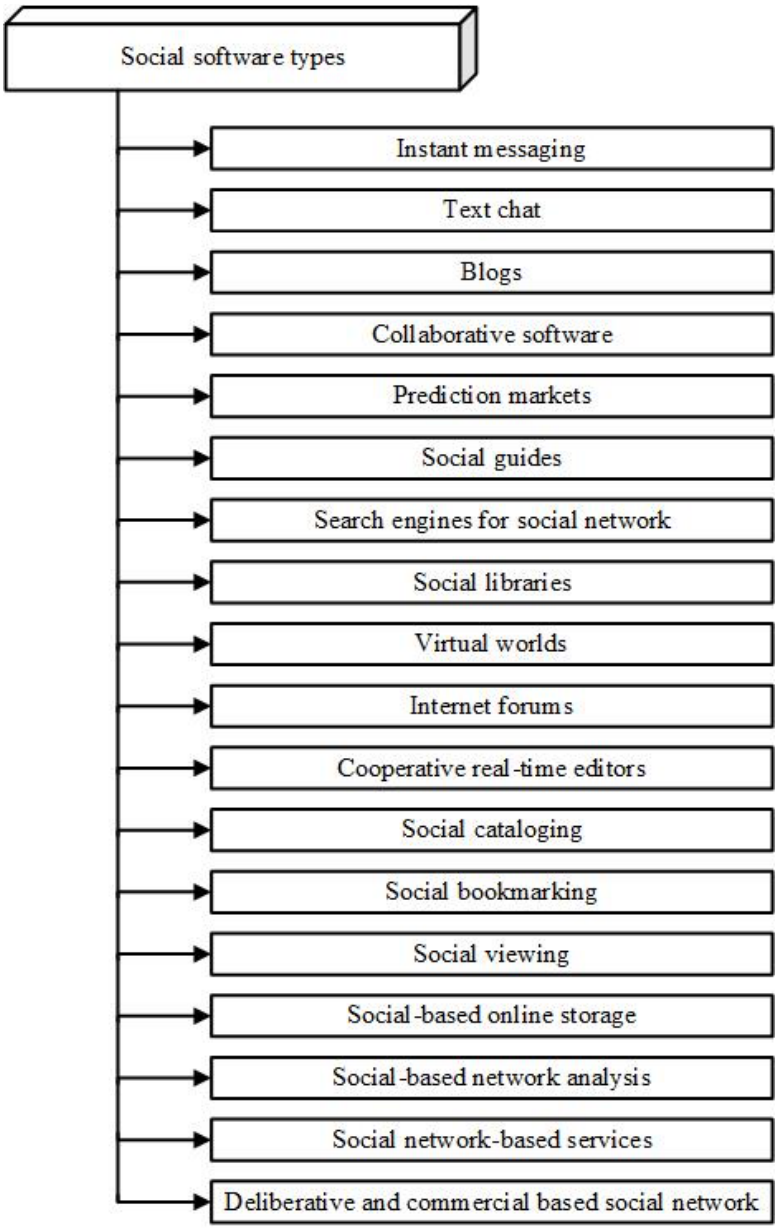

Figure.1: **Social software types**

Technology advancements are a benefit of modernization because they alter both people's private and public lives in every civilization. Depending on how quickly technology advances, these changes may be drastic or subtle. Researchers have witnessed a rapid shift from popular culture to digital culture in this current technology age. The adaption phase has been mostly determined by age and economic variables. The ways that people communicate with one another have changed, particularly as a result of the young population's use of console games, mobile devices, computers, and the internet. The new incarnation of socialisation brought about by the alterations in communication and socialisation patterns is what gave rise to the digital culture. A few outcomes of modernization include the growth of the sector and its connection with technologies, the impact it has on societal change, and the ease with which technology facilitates monitoring. The four main cornerstones of modernity are industrialism, capitalism, the mechanization of war, and the control of all facets of social life (Giddens 2020). This perspective gives rise to a tightly integrated picture of modernity. The primary trend of the contemporary era is globalisation, which is facilitated by international partnerships, linked economies, and unified nation-states. The newly created experience—an attempt to fortify one's digital identity through broadcasting—have emerged along with the digital culture and the internet development, which is characterised by the software production. It is clear from examining every recent technical development in social networks because, much like digital identities, the digital culture grows stronger with every significant inclusion like selfies, social media

connections, live streaming, or videos. Digital identities evolve very rapidly and exploit this to promote their identity whereas software engineers and other pioneers have been promoting the digital culture (Yetişkin 2016). With the dichotomy between the actual and online identities, the digital culture impacts a participant's digital identity, whereas the digital identity impacts his or her self-identity. Selfies and other attempts to fortify digital identity in the physical world can have an impact on social identity. The digital culture that's been developed for social media grows international and uniform in this way. This fictitious person would be created by the culture sector. Digital culture permits the patterns it inholds to propagate over the internet, much way the culture industry seeks to establish a shared culture via the use of conventional mass media.

Social software aspects:

The aspects of social software are described as follows:

1. ***Intelligent Social Networks:*** Developed for discussion, debate, as well as advanced cognitive function. They frequently work to forge connections between citizens and the government.
2. ***Social Guides:*** Promote locations where visitors can go to relax, eat, and have fun.
3. ***Social Cataloging***: These, which are widespread among instructors, are compilations of references or knowledge resources on popular topics for research or assessment.
4. ***Virtual Worlds:*** Allowing interaction between people in a completely hypothetical virtual environment, usually through voice or chat functions, is what is known as a video game.
5. ***Search Engines for Social Networks:*** A group of search engines, which categorises results, occasionally in one of two categories: express, which have been social connections that were indeed formally explicit (like friends, co-workers or relatives), and covert, which allow users to look up others in a very reliable social network (like combined with a typical reading intent that is likely religious or political).
6. ***Business Social Networks:*** In order to gain complete loyalty, this strategy asks clients for ideas on new services, goods, and delivery methods.
7. ***Social Bookmarking:*** People share their "favourites" or bookmarked websites, allowing others to choose from their favourite websites. Businesses may have an equivalent social package that enables company bookmarking, or the sharing of webpages relevant to their industry.
8. ***Social Online-Storage:*** Peer-to-peer (P2P) technique is rarely used by file archives, allowing for file sharing and public distribution.

Research questions:

The main question of the research can be formulated as follows:

What is the role of social software in shaping the cultural identity of Saudi citizens at Al-Jouf region from their point of view?

From this question, four sub-questions branch:

1. What are the methods and motives of using social software in the Saudi society?
2. What is the effect of using social software on the social values?
3. What is the effect of using social software on the religious values?
4. What is the effect of using social software on the national language?

2 Literature Review:

Some of the recent literatures related to the social software in shaping culture identity are described as follows:

(Udwan, Leurs, and Alencar 2020) investigated the effects of the shrinking welfare state and emerging digital transformations on the coping mechanisms of marginalised individuals like refugees by relying on a qualitative, in-depth scenario investigation with Syrians residing in the Netherlands. This research concentrated on how refugees have been supposed to and builds strategies for resilience, while acknowledging the systemic brutality and the trauma most refugees have endured. Digital health, Digital social support, and digital identities were three strategies for building digital

resilience that have been covered. Families, friends, groups, and social networking sites were the key sources of social support, while refugees' participation in relevant digital activities aimed to promote health and identification management. The prudent emotional digital labour refugees perform when interacting with their families, the influence of socio-cultural variables on refugees' adaptation and ICT (information and communication technology) use for health services, and the bargaining of various and conflicting identification axes online have all been examples of digital resilience's paradoxes brought to light by this studies fieldwork. At last, the study offers some ideas on how host countries might implement more efficient online and offline methods in the context of providing health as well as social support. However, the facilitated strategies are not applicable for other purposes.

Enterprise social software platforms (ESSPs) have become a crucial infrastructure for teams to function effectively in the challenging corporate climate. By exposing and proving the fundamental processes by which ESSP benefits to a team's capacity for improvisation, (Sun et al. 2020) have added to the scarce collection of research on ESSP. Surveying present ESSP participants, the research discovers that group social capital serves as an essential mediator as ESSP exerts its influence on the team's improvising capacity. But the findings support the presence of two unique mediation processes. First, while intra-team ESSP employment partially shapes creativity capacity through a team's inner social capital for bonding, inter-team ESSP employment totally influences improvisation capacity via exterior social capital for bonding. Secondly, intra-team (rather than inter-team) ESSP employment has a further influence on the capability to improvise due to the within-team (rather than outside-team) bonding social capital; nevertheless, this mediating effect would only be present in groups with a greater extent of absorptive capability. As a result, the current study adds to the body of knowledge on information technology-assisted group improvisation while also providing new insights into the ESSP. The study's outcomes also assist practitioners in utilizing ESSP to improve teams' capacity for adaptability at work. However, this research not explored the IT-assisted team improvising strategy.

The rapid and dynamic evolution of corporate intranets in recent years has prompted an increasing number of businesses to adopt platforms that use Enterprise Social Software (ESS) techniques. These websites are additionally known as social intranets. Companies struggle to attain adoption rates that are acceptable. (Hofman 2020) created and verified acceptability frameworks for five ESS technology solutions that are frequently incorporated in Social Intranets in attempt to properly comprehend the adoption of Social Intranets. The proven acceptance models give a thorough grasp of the variables affecting Social Intranets' adoption. Through better Social Intranet concepts and execution, enterprises can increase adoption rates. Moreover, this platform is not applicable for all purposes.

In order to thrive in the cutthroat business environment of today, organizations must have effective management, processes, and effectiveness. Through the utilization of person knowledge resources and improved organizational collective knowledge, the application of Knowledge Management (KM) and Business Process Management (BPM) can assist businesses in enhancing their capacities. Traditional BPM frequently runs into issues in unstructured and dynamic processes due to differences between the concept and actual execution of the procedure and the inability to better innovations and thoughts to the BPM application's end user. By encouraging different stakeholders to effectively participate in the deployment of BPM, this issue can be resolved (Ramadhani and Er 2019). Social software can help with knowledge management by actively including all essential stakeholders in BPM activities. This study includes researching the literature, formulating questions, analyzing literature outcomes, and eventually suggesting a conceptual model as its last phase. The theoretical framework for employing social software, which will have an impact on BPM and KM, seems to be the outcome of this study. This conceptual approach is anticipated to create new avenues for future social software, BPM, and knowledge management research. Further, this research only identified the social software use in improvement of only two applications not identified for other applications.

People's social behaviours have changed significantly as a network technology's results quick development, and online fraud will have also become more prevalent. To retrieve the fraud information from the victim's old social media accounts, the backup software for the complete APP information or the total mobile phone information is typically employed. The tactics, however, were ineffective at gathering evidence and can't ensure the victims' private. As a result, a technique predicated on social software for quick forensic examination of fraud data was suggested (Shanjun, Songyang, and Qian 2021). This approach focuses on solving the challenges of data collection, data mining, and data assessment, which can effectively collect data and ensure the victims privacy. The decoding of encoded files, social software interaction mechanism, and data assessment techniques have been all investigated at the same moment. The results show that this method significantly outperforms other mobile phone backup techniques. Furthermore, experiments were conducted using the Apriori technique to perform case connection and trajectory assessment. When it comes to gathering evidence and conducting actual case investigations, this strategy is quite effective and dependable. However, this technique takes more time for implementation.

The factors affecting the adoption of mobile learning (M-learning) have been the subject of extensive research. However, little has been known about researching how knowledge management (KM) aspects affect the M-learning acceptance. In order to investigate the adoption of M-learning, the main goal of this research is to create a conceptual framework by expanding the technology acceptability model (TAM) with KM elements (collection, sharing, implementation, and security). To evaluate the created model, this research uses partial least squares structural equation modelling (PLS-SEM). 416 undergraduate (UG) IT students enrolled at Malaysia's Universiti Malaysia Pahang (UMP) provided the data for this study. The findings demonstrated that knowledge collection, implementation, and preservation have favorable effects on perceived utility and simplicity of use. However, it was discovered that perceptions of usefulness and usability-of-use boosted information sharing to some extent. Furthermore, the presented model was only analyzed for Malaysian students.

Social technologies can offer powerful tools for managing information flows within businesses, leading to modifications in knowledge management (KM) platforms that can subsequently be connected to performance enhancements. In light of this, the development of social media inside organizations and its potential effects on knowledge transfer in a specific kind of KM system—Community of Practice (CoP) predicated discussion groups (KMDG)—have been discussed (Nisar, Prabhakar, and Strakova 2019). This study focuses on this KM technology because it gives employees the chance to strategically connect with various groups of individuals inside their CoP as well as participate in information and communication sharing. This research examine two intermediary data mechanisms—data richness and informal interaction—that social networking KMDGs have been hypothesized to produce employing a content analysis approach, and the research quantify their impacts on labour efficiency and yield on assets. The results show that KMDG enhances organizational effectiveness through social interaction and embedded data. However, the advantages to an organization may not always be immediately related to an enhanced knowledge base.

The social presence of students has been improved significantly by social networking sites. They have made a big contribution to increasing students' enthusiasm for studying as a teaching element for online programs. Investigating how social networking sites affect students' academic progress is the goal of this study. Thus, a thorough analysis of social networking site utilization in academic settings has been carried out in order to determine the key variables and to suggest a new framework based on a number of study hypotheses (Samad, Nilashi, and Ibrahim 2019). A survey of female students from a prestigious Malaysian research university has been done in order to assess the hypotheses and confirm the suggested model. Additionally, the data assessment was done using the Decision Making Trial and Evaluation Laboratory. With regard to the statistical method, this method can identify the ad hoc correlations between the variables, their magnitudes of influence, and their relative weights. According to the survey's findings, social engagement, students' social welfare, and academic success are all positively correlated. Moreover, the data analysis process takes more time.

The majority of learning management systems, or e-learning online applications, relate to cooperation on a website page. It enables direct user-to-user interaction with several applications across all online platforms. The consumers' behaviour hasn't, however, been in-depthly examined. Due to the educational medium, execution takes place online. In order for the lecturer to alter how online tasks have been carried out, it is required to assess every student's behavioral patterns during the blended learning's implementation. This led to the proposal of a conceptual framework for characterizing students' behavior in e-learning predicated on the metadata method and the Inquiry Model community (Man, Azhan, and Hamzah 2019). This study used an inquiry model community to describe the online learner experiences as well as a metadata technique to gather student knowledge in e-learning. This conceptual framework serves as the foundation for assessing online learner behaviour traits with the aim of enhancing student involvement and online behavior creation. Further, the research was tested for one applications and the developed framework is not adaptable for other applications.

South-South Nigerian students participated in a study that examined how business education students employed social software innovations for self-regulated learning (Ikelegbe 2021). A qualitative survey study design was used for the investigation. Data was gathered using a questionnaire that was approved by three professionals with expertise in business education as well as monitoring and evaluation. The instrument's reliability was determined by a pilot trial, and assessment employing the Cronbach Alpha Technique produced a 0.88 correlation coefficient. According to research, business education pupils in South-South Nigerian universities and colleges of education don't use social software tools to consciously their learning. Among many other things, it was advised that colleges and universities create curricula that will emphasize students employing social software technologies for self-regulated learning. Additionally, academic institutions and instructors in South-South Nigeria ought to foster an atmosphere that would motivate students to use social software for self-regulated education. However, the survey process takes more time.

3 Methodology:

The current research relied on the descriptive approach and was based on three main axes: the first was reviewing previous studies; the second was to collect the data necessary to determine the role of social software in shaping the cultural identity of Saudi citizens at Al-Jouf region from their point of view; and the third was to analyse and describe the data collected from the questionnaire used and gaining the results necessary to answer the research questions.

Participants:

The research community consisted of all Al-Jouf region citizens in Saudi Arabia during the academic year 2021/2022. The sample was chosen randomly by publishing the questionnaire for application through various social networking sites. The sample reached to (572) of Al-Jouf region citizens, (221) male and (351) female, (193) less than 20 years old, (252) from 20 to 40 years old, and (127) more than 40 years old. The participant's demographic characteristics have been represented in table.2.

Table.2: **Samples demographic profile**

Measures	Items	Counts	Percentage
Gender	Female	351	61.4
	Male	221	38.6
Total		**572**	**100**
Age	< 20yrs	193	33.7
	20-40yrs	252	44
	>40yrs	127	22.3
Total		**572**	**100**
Degree	UG	375	65.5
	PG	197	34.5
Total		**572**	**100**
Relationship status	Married	300	52.4
	Single	272	47.6
Total		**572**	**100**
Occupation	Public company employee	107	18.7
	Private company employee	184	32.2
	Business owner	149	26
	Student	132	23.1
Total		**572**	**100**

Note: UG-Under graduate, PG-Post graduate

Procedure:

The current investigation was portion of a wider cohort study, which will examine the social software impact on shaping the culture in Al-Jouf region citizens. In total, 572 individuals were chosen at random for assessment. Participants were asked to answer a piece of a composites questionnaire based on their age that included demographic questions. The current study collects data from individuals from the year 2021-2022. All the individuals gave their complete approval. The conceptual framework of this research is shown in Fig.2.

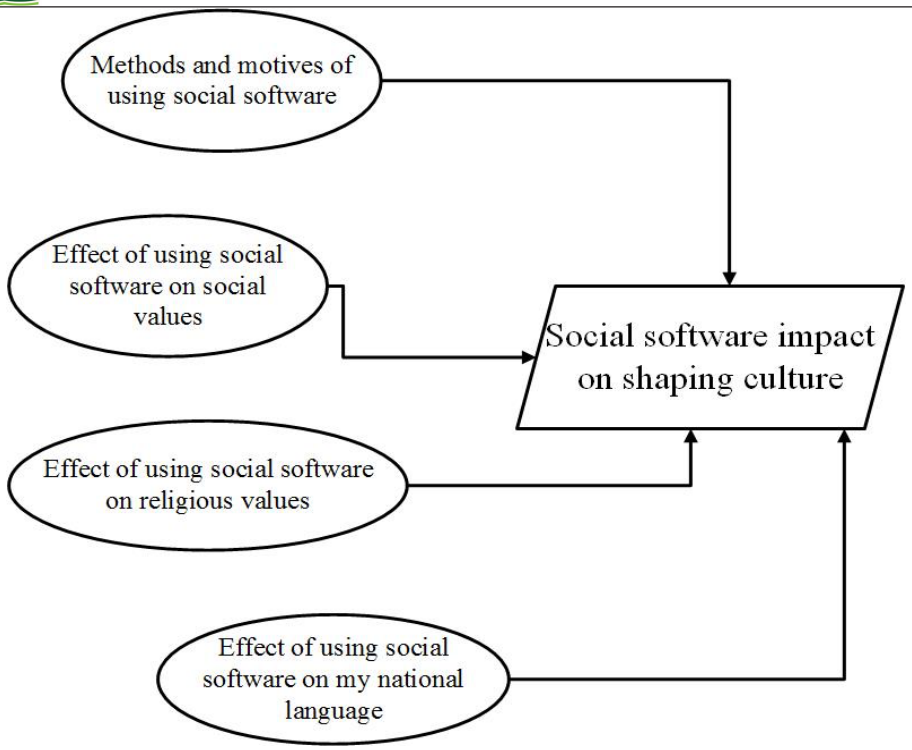

Figure.2: **Conceptual framework**

Measures:

By adopting correct scale items from past studies, the methods and motives of employing social software was measured using 27 items, the effect of employing social software on social values was measured using 14 items, the effect of utilizing social software on religious values was measured using 5 items, and the effect of utilizing social software on my national language was measured using 6 items. The respondents were valued these items by 3-point Likert-scale, which was stable at 3(agree)-to-1(disagree). The measurement items and scale items of social software use in society culture shaping is shown in table.3.

Table.3: **Items for measurement**

Variables	Items	Scale items
Methods and Motives of using social software (MM)	MM1	I have been using social software for a long time
	MM 2	I Always use social software
	MM 3	I Use social software during study and work perio
	MM 4	I prefer to use social software in the morning
	MM 5	I spend more than 3 hours on social software every day
	MM 6	I Type a real name when using social software
	MM 7	I Show my true identity when using social software
	MM 8	I want to be a character other than myself when using social software
	MM 9	I prefer to use of YouTube
	MM 10	I prefer to use of snapchat
	MM 11	I prefer to use of LinkedIn
	MM 12	I prefer to use of Twitter
	MM 13	I prefer to use of Telegram
	MM 14	I prefer to use of Facebook

	MM 15	I prefer to use of Instagram
	MM 16	I prefer to use of WhatsApp
	MM 17	I use the social software sites for social reasons
	MM 18	I favor using social media platforms for religious purposes.
	MM 19	I prefer social media platforms for cultural reasons.
	MM 20	I prefer using social media platforms for political objectives.
	MM 21	I prefer to know new cultures from social software sites
	MM 22	I Make new friends from social software
	MM 23	I Use social software sites for fun and entertainment
	MM 24	I Follow current and new events from social software sites
	MM 25	I use social software sites to fill my free time
	MM 26	I feel psychological relief when I stop using social software sites for a long time
	MM 27	I get nervous when I stop using social software sites for a long time
The effect of using social software on social values (ESS)	ESS 1	Topics published on social software sites affected my cultural identity
	ESS 2	I like to learn about different cultures of other peoples
	ESS 3	Social software sites are changing my native culture
	ESS 4	Social software sites reinforce my social values
	ESS 5	I prefer to use social software in Browsing Heritage and Historical Topics
	ESS 6	I prefer browsing cultural topics related to my national identity on the social software
	ESS 7	I prefer the topics which related to the citizenship on the social software
	ESS 8	Social software sites changed my personality
	ESS 9	The topics published on social software sites affected my habits and traditions
	ESS 10	Social software changed the way I think
	ESS 11	I gave up some habits because being influenced by the topics published on social software
	ESS 12	Social software introduced extraneous traditions
	ESS 13	I imitates what I sees as a blind imitation
	ESS 14	I adhere to the teachings of my religion when I use social software
The effect of using social software on religious values (ESSRV)	ESSRV 1	My religious culture has grown through topics posted on social software
	ESSRV 2	I interact with religious topics published on social software with a Like
	ESSRV 3	I comment on religious topics published on social software
	ESSRV 4	I share religious topics published on social software
	ESSRV 5	I benefit from religious topics published through social software for myself only
The effect of using social software on my national language (ESSNL)	ESSNL 1	I prefer to use Arabic language in communication and dissemination of topics through social software
	ESSNL 2	I prefer to use of slang in communication and dissemination of topics through social software
	ESSNL 3	I prefer to use of the English language in communication and dissemination of topics through social software
	ESSNL 4	I prefer to use the Franco-Arab language when publishing topics on social software
	ESSNL 5	The language used on social software affected my cultural identity
	ESSNL 6	I neglected the Arabic language when using social software

Validation procedure for measurement:

In this study, the reliability of each scale is examined along with the application of a set of items using Cronbach's alpha. A measurement of internal consistency or even how closely a group of things were connected is Cronbach's alpha. A measurement with a "high" alpha number is not necessarily one-dimensional. Testing internal reliability could be combined with other research to provide additional evidence that the scales under consideration are unidimensional. Instead of statistical metrics, Cronbach's alpha appears to be a coefficient suggesting dependability. The scale purification procedures used in this study were those proposed by Anderson and Gerbing (Anderson and Gerbing 1988). Standardized residuals, normality, and modification indices were looked at for item loadings. Low factor loading items have been removed from the scales. After removing the items, this research reevaluated the remaining items to make sure the study's initial assumptions about the constructs had not altered. Common-Method-Variance (CMV), a common issue when using information from the self-reported specified source, seems to be a concern. If CMV is not promptly treated, study results may be incorrect. To further reduce the risk of CMV, this study used Harman's single factor assessment. The test results showed that a single component only represented for 34.16 percent of the variance among the variables, which is below the 50 percent threshold for CMV problems. This shows that the current study does not raise any concerns about CMV. Additionally, Composite Reliability (CR) and Cronbach's alpha have been assessed to corroborate the construct dependability of the measuring items. Additionally, the Average-Variance-Extracted (AVE) and factor loadings have been looked at to show whether each construct had composite reliability. The benchmark values for Cronbach's alpha, factor loading, and AVE are all 0.60, 0.65, and 0.60 respectively.

Data analysis:

The Partial-Least-Square (LPS) paradigm, which is popular and effective, is used in this study's evaluation of the research approach with latent variables. In order to verify the generated hypotheses behind the correlations, multiple regression assessment has been done using SPSS 22.0 after the measurement models' validity and reliability were first validated.

4 Research findings:

In academia, there is ongoing discussion about the permissible range for each scale's alpha coefficient. A novel idea or if the participants in the study area have been still unfamiliar with it call for an alpha coefficient of 0.6 or higher, according to some scientists, who have agreed with a range of 0.7 to almost 1. This study concludes that an alpha coefficient of 0.6 or above is enough. In contrast, an item with item-total correlation coefficient is ≥ 0.3 are deemed items with proven reliability, whereas items with an item-total correlation value of < 0.3 are eliminated from the scale. In this study, the Cronbach's-alpha reliability coefficient ranged from 0.821 to 0.924. It's important to note that all scales' measured variables have such a substantial correlation with the overall item, but only scales with a minimal value of 0.486 can demonstrate this. Table.4 represented the test outcomes for the 572 participants.

Table.4: **Test results of validity and reliability (N = 572)**

Likert-scale construct	Variables	Normal factor loadings	Cronbach's-alpha	AVE	CR
Methods and Motives of using social software	MM1	0.742	0.924	0.850	0.827
	MM2	0.764			
	MM3	0.793			
	MM4	0.735			
	MM5	0.776			
	MM6	0.721			
	MM7	0.733			
	MM8	0.742			
	MM9	0.725			
	MM10	0.724			
	MM11	0.694			
	MM12	0.652			
	MM13	0.741			
	MM14	0.687			
	MM15	0.690			

	MM16	0.645			
	MM17	0.698			
	MM18	0.761			
	MM19	0.702			
	MM20	0.701			
	MM21	0.724			
	MM22	0.761			
	MM23	0.780			
	MM24	0.752			
	MM25	0.759			
	MM26	0.688			
	MM27	0.706			
Effect of using social software on social values	ESS1	0.742	0.914	0.874	0.923
	ESS2	0.697			
	ESS3	0.682			
	ESS4	0.596			
	ESS5	0.641			
	ESS6	0.654			
	ESS7	0.791			
	ESS8	0.745			
	ESS9	0.663			
	ESS10	0.598			
	ESS11	0.486			
	ESS12	0.514			
	ESS13	0.658			
	ESS14	0.578			
Effect of using social software on religious values	ESSRV1	0.642	0.821	0.761	0.876
	ESSRV2	0.843			
	ESSRV3	0.897			
	ESSRV4	0.701			
	ESSRV5	0.716			
Effect of using social software on my national language	ESSNL1	0.775	0.878	0.799	0.774
	ESSNL2	0.758			
	ESSNL3	0.891			
	ESSNL4	0.909			
	ESSNL5	0.893			
	ESSNL6	0.880			

The assessment outcomes of this investigation show that the item analytical results have been trustworthy since Kaiser-Meyer-Olkin (KMO) = 0.864 > 0.5, Sig = 0.000 <0.05. The rotational factor matrix indicates four factors for investigation; these items have 68.97 > 50% of Average Variance Extracted (AVE) and the coefficient of Eigenvalues for the fourth factor was equal to or greater than 1. This evaluation thus supports the existence of four factors. When contrasted to the hypothetical scales, these characteristics have little impact on the observed variables, showing that the scales were highly convergent, as indicated in table.5.

Table.5: **Correlation-coefficient matrix and AVE**

Variables	**MM**	**ESS**	**ESSRV**	**ESSNL**
MM1	0.768			
MM2	0.784			
MM3	0.795			
MM4	0.784			
MM5	0.843			
MM6	0.838			
MM7	0.819			
MM8	0.774			
MM9	0.832			

MM10	0.825			
MM11	0.862			
MM12	0.734			
MM13	0.856			
MM14	0.847			
MM15	0.825			
MM16	0.819			
MM17	0.800			
MM18	0.864			
MM19	0.798			
MM20	0.869			
MM21	0.857			
MM22	0.820			
MM23	0.834			
MM24	0.828			
MM25	0.742			
MM26	0.857			
MM27	0.874			
ESS1		0.838		
ESS2		0.812		
ESS3		0.774		
ESS4		0.841		
ESS5		0.778		
ESS6		0.734		
ESS7		0.795		
ESS8		0.784		
ESS9		0.846		
ESS10		0.824		
ESS11		0.859		
ESS12		0.769		
ESS13		0.775		
ESS14		0.884		
ESSRV1			0.864	
ESSRV2			0.882	
ESSRV3			0.764	
ESSRV4			0.875	
ESSRV5			0.847	
ESSNL1				0.872
ESSNL2				0.743
ESSNL3				0.846
ESSNL4				0.883
ESSNL5				0.747
ESSNL6				0.865
AVE	**53.092**	**58.186**	**62.827**	**68.97**
KMO = 0.864	**Sig=0.000**			
Eigen values	**2.542**	**2.026**	**1.896**	**1.856**

Finally, the chosen research hypothesis has been tested utilizing correlation and regression analysis (CRA), which demonstrates that when the extent of statistical importance is significant. The outcome demonstrates the strong correlation between the variables used in the regression analysis. The VIF multicollinearity test must be employed to identify inappropriate components.

Table.6: **Correlation analysis**

Variables	MM	ESS	ESSRV	ESSNL
MM	1			
ESS	0.062	1		
ESSRV	0.118**	0.062*	1	
ESSNL	0.89**	0.146**	0.148*	1

* Coefficients at 0.05 significant level; ** Coefficients at 0.01 significant level

The VIF results show less than two coefficients, which may indicate that the model's elements have been not multicollinear. The fact that each variable's Sig coefficient was more than 0.000 suggests that each component had an effect on it. These results show that no components have been eliminated from the model and that the regression ensures that the assessment requirements have been met. The result of the investigation into how social software influences the culture identification is indicated in table.6.

5 Discussion:

The two stages of this research were preliminary analysis and secondary analysis. The CFA and CMV have been employed in preliminary assessments to evaluate the validity and reliability. To verify the proposed hypotheses, the Correlation and Regression Analysis (CRA) was used in the secondary studies. When examining external factors that are crucial to culture identification in social software, there have been opposing viewpoints in the existing research. The study uses the same approach as the prior one and contends that social value has a substantial influence on how social software shapes culture identity. Moreover, the result indicated that the national language extent have the strong determination on shaping culture identity. The current research notes the language requirements in the social software for shaping the cultural identification. On the other hand, the study advances the idea by offering new insights into other crucial factors that aid social software in defining the cultural identities of Saudi residents. The outcome runs counter to studies that contend social value and national language seem to be the most important elements in forming cultural identity.

6 Conclusion:

The research backs up the role of social software in shaping the culture identity of Saudi citizens. The results of this study, which are consistent with those of other existing studies, reinforce the essential supporting relationship between impact of social software in generally, and in the environment of Saudi Arabia in particular, Al-Jouf region. In contrast to the research, the study found that the selected factors had a somewhat greater effect in the Saudi citizen's cultural identity. The survey questionnaire for this study was developed using lessons learned from earlier research, and it took into account the actual situation in the Al-Jouf region. Both the demographic and independent components have been looked into. When it comes to demographic concerns, research takes factors like gender, age, education level, occupation level, and relationship status into account. The independent characteristics evaluated include social value, methodology and intentions, religious value, and national language. The impact of the chosen hypotheses has been assessed using a correlation and regression analysis. The study's findings showed that national language and social value are the two most important criteria that social software uses to determine a citizen's cultural identity.

7 Limitations of the study:

The current research limited to determine the role of social software in shaping the cultural identity of Saudi citizens at Al-Jouf region only and addressing cultural identity from three axes: the social values, the religious values, and the national language.

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