User Acceptance of HUMP-Model: The Role of E-Mavenism and Polychronicity

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ABSTRACT Social network site usage has grown to be a worldwide trend. These sites facilitate online contact between individuals having similar concerns. The speedy and extensive usage of such sites has affirmed their perception and positioning in the minds of users. This research adds to our consideration by empirically exploring determinants affecting users' acceptance of such sites. A HUMP model has been introduced to evaluate the effect of hedonic (perceived playfulness), utilitarian (perceived usefulness) e-mavenism, polychronicity, and perceived ease of use on the intention to use and thus actual use of social networking sites. The causal modeling technique is used to study the outline of associations amid the projected model constructs and to analytically evaluate the research propositions. All the conjectured factors possess a considerable unswerving sway on the intention to use, with e-mavenism and polychronicity, the robust indicators.

INDEX TERMS Social networking sites, e-mavenism, polychronicity, structural equation modeling, user acceptance.

I. INTRODUCTION

Social networking sites (SNSs) are gaining consideration to register new members at an amazing pace and magnetizing the interest of consumers about these sites [1]. One of the promising new technologies is social media, which fascinates the interest of millions of users; maintaining their accounts has turned out to be one of the exceptionally well accepted and more emergent online activities [2]. SNSs are considered to be significant for individuals as well as businesses which facilitate and retain previously existing social relations, and also establish new links among individuals [3]. A social network can be described as a network of socially linked individuals through diverse connections or relations/links, and the links may be applications, social sites, research citations, business platforms, physical interactions, and educational platforms [4]. Advertisers are hopeful that users

procure their products, comment favorably on their sites, and post valuable information about products and trends [5]. Considering as an effective marketing tool, SNSs have extensively used throughout marketing related activities [6], [7].

Internationally the number of online users has increased, so the extent of internet consumers and the audience has also increased [8]. Within the 21st century, it is expected that firms would significantly integrate novel technologies to attain sustainability and competitive advantage [9]. Near about 2020, online users are expected to be around four billion, signifying the importance that targeting customers' needs will be imperative than ever [10]. Marketers are continuously required to advance business models and strategies [11]. With the progression of digital platforms, virtual shopping is also growing, and offering consumers numerous opportunities in the purchasing process, with better and improved products and services [12].

During the past years, several theories and models have been suggested to enlighten the technology usage

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behavior [13]. Introduced by Fishbein and Doll actual use (AU) of the system has been directed to sentimental intentions and attitudes [14], [15]. A broadly acknowledged assumption on the AU of innovative technology is being projected by the Technology Acceptance Model (TAM) [16], [17]. Firstly, TAM, is projected by Davis [16], which encompasses core variables of user motivation "perceived ease of use (PEU)", "perceived usefulness (PU)" and "attitude" towards technology; and resulting constructs "behavioral intention" and "actual technology use" [18].

Amongst people and society, the importance of SNSs has gradually gained the concentration of intellectuals [19]. Significant to TAM literature in the field of SNSs affirmed that in information technology acceptance study, one of the most considerable models is TAM and the existing conjectural approach concerning users' adoption of social media" [20], [21]. A significant association exists between TAM and SNSs [22]. TAM has been criticized for extending the model by researchers and including variables to clarify the modern emphasis of innovation. Continuous extension in the model results in difficulty for some researchers to ascertain the definitive version of the model [23].

Gefen and Pavlou explain that the original TAM model cannot grasp the entire aspects that influence virtual shopping [24], [25]. Van der Heijden [26] recommends that TAM can be focused on the framework of technology by adding determinants [17]. A critical analysis of TAM has disclosed that it is required to append certain external elements into the model to enhance technology acceptance and thus proposed, including other variables [27]–[29].

Extended TAM has been presented by many researchers with diverse external aspects to identify and emphasize the antecedents of technology usage [30], [31]. This research uses TAM to enlighten user acceptance of SNSs [16]. TAM has been admired as it executes the conjectural distinctiveness of ease (parsimony), sustains through verifiability (data) plus being appropriate to forecast acceptance and usage of innovative technologies in diverse areas of study (generalizability) [32].

Though there is plethora literature about social networking sites usage [5] however, no empirical research is available regarding constructs (e-mavenism and polychronicity) causal to an individual's "IU" succeeding to "AU" of technology. Noteworthy research is needed to be considered to find out the constructs that influence an individual's intention to connect for e-participation [33].

The current study fills up a research gap and uses TAM's additional constructs. In this research, we have introduced the HUMP (**h**edonic, **u**tilitarian, e-**m**avenism, and **p**olychronicity) model, which deals with consumer motivation to accept technology by focusing on intrinsic and extrinsic factors. This research adds in literature and presents the significance of e-mavenism and polychronicity with TAM. A unique combination of determinants has been offered in the HUMP model, which has not been identified or explored previously.

TAM-based research should be conducted in emerging countries [34]. A western-originated model such as TAM can be applied in China (South East Asia), an imperative research query to explore. Numerous multinational firms are having enormous concerns in the rapidly growing Chinese market [35]. Present study spotlights on the concept of e-mavenism and polychronicity along with TAM being applied first time in China.

Firstly, we discuss the existing literature about determinants understudy and user acceptance of technology and SNSs. Secondly, the proposed research model-HUMP (**h**edonic, **u**tilitarian, e-**m**avenism, and **p**olychronicity) is presented and discussed the study constructs and anticipated hypotheses. Thirdly, we explain the methodology to test study hypotheses and HUMP-model, subsequently the analysis and results. Lastly, we summarize discussion, implications, limitations, and suggestions for future study.

II. THEORETICAL BACKGROUND

Motivational theory depicts that two basic kinds of motivation have been established by user acceptance: intrinsic and extrinsic [36]. An intrinsically motivated person is determined from benefits derived by interface with the system; a person who is extrinsically motivated is driven from the anticipation of various remuneration or advantages exterior to the system-user dealings [37]. A key role to this study has been the preface and adaptation of TAM [17] that is initiated by Fishbein and Ajzen [14] as Theory of Reasoned Action postulates that "behavioral intention" (BI) is affected by subjective norms, attitudes, and beliefs. Technology Acceptance Model enlightens computer utilization behavior [38].TAM and it's extension present that computer users are influenced by views, attitudes and behavioral intentions of the consumers. TAM suggests IU of technology is considerably subjective through the person's acceptance of PU and PEU of the technology. PEU defines the degree, and an individual considers a specific technology is easy to use whilst PU defines the extent a user considers that technology can amplify an individual's job performance. The presented definition of Davis *et al.* [38] has been extended through PP associated with activities perceived as entertaining and pleasurable [26]. Social networking services comprise communication media and web communities'. Communication media incorporates online help emails, chat and instant messaging. Web communities are online blogs, forums, online product ratings/reviewing, newsletters and social networking sites [39].

The study holds the vital distinctiveness of TAM [16] in present research on SNSs, whereas two determinants have been added e-mavenism and polychronicity. E-Mavenism treats as one of the noteworthy determinants in influential consumer tendency. Feick and Price [40] commence the idea of market mavenism which is depicted as "enclose knowledge of numerous types of products, shopping areas, and further aspects of markets, as well as start discussions and answers to queries of consumers related to market information" [35], [41].
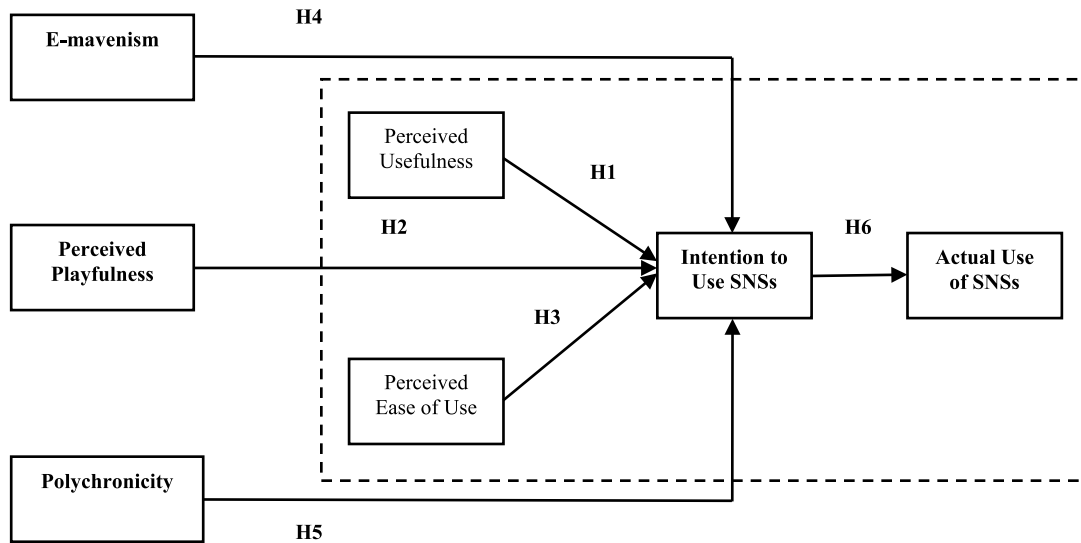
FIGURE 1. Conceptual framework (HUMP Model).

Since the internet adoption has considerably amplified, distinctive characteristics of this novel information setting may form users who take pleasure in internet usage; as a result, they are more informed about the means than other individuals [42]

EM is fabricated from market mavenism and highlights exploring and publicizing product/market information virtually. From a behavioral viewpoint, e-mavenism has been related to virtual browsing for added hours weekly, more carefully reading newsletters, electronic-mails, and discussions about family shopping. It has been provoked by the required information and professional/ individual interests [43].

Firstly polychronicity is introduced as a cultural variable by Hall [44], that defines as the extent to which persons in a culture: (1) have a preference to be affianced in two or more events or tasks concurrently, and (2) consider their inclination is the superlative approach to do the tasks" [45]. Polychronicity defines an individual's preference to be engaged in multitasking [46]. Polychronicity is an individual's inclination for switching consideration among progressing errands moderately than centering on a sole issue to complete it first and then transfer attention to additional tasks .[47].In consumer behavior study, one determinant that illustrates how users make use of time and have gained augmented notice is polychronicity [35]. Polychronicity is regarded as an imperative construct of individuals to make use of time [35], [48]. Though, a study has yet to find out the association of e-mavenism, ploychronicity with the user intention and thus actual usage of SNSs.

Literature in consumer behavior distinguishes hedonic and utilitarian features [49], [50]. In the area of marketing research, various behavioral patterns and purchase decisions have been reflected by the dichotomization of utilitarian and hedonic values [51]. The virtual world includes both utilitarian & hedonic aspects, which presents utilitarian and hedonic benefits to a shopper. Customers also appraise

a message cognitively and emotionally if they perceive a have high-quality content to review [52].

The word hedonic has been taken from the term hedonism used to signify the dogma that happiness or pleasure is the main element in life, the worth of a hedonic system is an extent the user practices pleasure when dealing with the system. To gain enjoyable know-how, an individual often looks for ambiance on numerous sensory mediums [49]. While comparing to the utilitarian system, which intends to offer instrumental worth to individuals. The aim of a utilitarian system amplifies the individual performance regarding an assignment while supporting effectiveness. Thus, the primary approach is to line up the system's utility with assignments and to give a slight interruption as likely to facilitate the user's task [53].

III. CONCEPTUAL FRAMEWORK AND HYPOTHESES
A. CONCEPTUAL FRAMEWORK
HUMP model observes user acceptance of SNSs from both hedonic and utilitarian viewpoint together with PU, PEU, and PP. The research offers the addition of e-mavenism and polychronicity that have noteworthy sway on IU; also it has a vital effect on AU. Accordingly, the HUMP model consists of five constructs of an individual's IU, which is a construct of AU of social networking sites (FIGURE 1). All constructs and the related hypotheses are depicted here:

B. PERCEIVED USEFULNESS
TAM posits user's IU or adoption of technology is resulted from both of the perspectives: PEU and PU. PEU defines the degree; a user considers that technology usage can be effort-free whereas, PU defines to the degree a user thinks that technology usage will advance one's job execution or productivity. TAM study has discovered that together, PEU and PU are significant constructs of users' acknowledgment, implementation, and utilization conduct [8], [17], [54], [55].

Exclusively, together, PU and PEU [21], [56] have built up empirical sustainability that performs a significant part in determining and predicting technology acceptance behavior. Whilst perceived usefulness has been well-thought-out and significant in formatting a user's acknowledgment and use of information technology [38]. PEU is applied to accurately forecast the IU [17]. The significance of two individual perceptions is highlighted by TAM (PU and PEU) as predictors of intention and successive technology usage [57], [58]. Davis identifies that PU and PEU significantly correlate with future information technology usage [59].

The conjectural underpinning of TAM by Davis *et al.* [38] and the reviewing Theory of Planned Behavior by Taylor and Todd [60] explain that PU has a noteworthy sway on users' attitudes to IT/IS espousal. PU is associated with persons' IU of technology [61]. PU is a general construct in investigating persistence intention [62], [63]. PU and PEU contribute a pivotal role in formatting the BI to use [64]. Hence, it is projected:

Hypothesis 1 [H1] Perceived Usefulness Positively Affects Intention to Use SNS[S]*:*

C. PERCEIVED PLAYFULNESS
The perceived playfulness (hedonic motivation) has a high positive and robust association with information systems usage and supports in determining usage acceptance for digital technologies [8], [26]. "Hedonic motivation" defines the pleasure resulting from technology usage and a vital construct of consumer's acceptance to use a technology [65]–[68]. Perceived playfulness considers amusement that may be resultant to system usage so, PP is the focal point in intrinsic motivation. For hedonic systems, the leading predictor of IU is intrinsic motivation [26].

The objective of a utilitarian system to offer instrumental value to the users as compared to the hedonic system, which has a purpose of presenting self-fulfilling value to the users [26]. These forms of systems have motivated scientific attention [69], [70] and its acceptance has been recognized as a relevant study space [70]. The identification of social ties from social networks is a purposeful and significant issue to be indomitable [4]. Generally, the grade to which the use of the hedonic system delivers fun to a user verifies its value, and thus presently, if continuous system usage provides more fun. Thus the user will have greater intention in the future to continue the use of a system [71].

In seminal research conducted by Van der Heijden [26] indicates that around the world, reasons presented by the consumer's acceptance of hedonic information systems need to comprehend and enlighten. The visual eye-catching information systems are easy to use. Further, his study regarding TAM and its results point equally PE and PEU are the most important elements to elucidate the intention to use systems. This initiates that PP has a vital influence on IU to SNSs use. Therefore, it is anticipated:

Hypothesis 2 [H2] Perceived Playfulness Positively Affects Intention to Use SNS[S]*:*

D. PERCEIVED EASE OF USE
PEU defines the degree when the social media site is user-friendly [26]. The idea of the EU narrates to Zipf [72] the theory of least effort that explains to facilitate all user's stake on a line of action which engages the least usual effort by the individuals. Theory of least effort could be broadened to envisage that the use of social media is further admiring the least effort mandatory to explore attributes, utilization of the applications, and execute activities regarding social-media, like networking, posting, and sharing the video with a proficient. The significance of PEU is worthwhile, the extent to which innovation does not profess to be tricky [73].

PEU is the scope to which usage of a novel knowledge, innovation or technology, is anticipated to be comparatively free of sentimental, psychological or physical exertions for potential adopters [74]. PEU is a review of the psychological endeavor concern in the utilization of the system. This has a vital effect intended for the function of PEU in envisaging user acceptance of hedonic besides utilitarian systems. Moon and Kim [75] analyze that using the Internet, PEU is one of the substantial predictors of IU. When new information technology is professed to be useful and easy to use, then an affirmative attitude has been developed to the usage of this new technology [8].

In the framework of hedonic systems, it is discovered that an optimistic attitude and augmented readiness of system use can only be found if users recognize the system user-friendly, [76]. Further, in a comparative study of TAM, TPB, and DTPB (Decomposed Theory of Planned Behavior) by Taylor and Todd [55] establishes a positive association between PU and PEU. Recently research regarding TAM [77] discloses a system is useful if a user perceives it easy to use. Thus, we suggested:

Hypothesis 3 [H3] Perceived Ease of Use Positively Affects Intention to Use SNS[S]*:*

E. E-MAVENISM
E-mavens can be difierentiated from general market mavens, which refers to the medium (Internet and email), a source to acquire and spread information. To achieve their communication objectives, e-mavens are specifically affianced with the webspace and are competent for searching online information and replying to others' information queries. For marketers identifying e-mavens are practically important for making their virtual campaigns successful. E-mavens are individuals who use electronic platforms to acquire and spread information [78].

Important stimuli should be provided by e-retailers and make sure that their sites suggest distinctive values and benefits to persuade the consumer to shop online [39].

Barnes and Pressey [79] identifies market mavens as representatives known as 'super consumers' and passionately circulate general information regarding the marketplace. Such representatives are also known as digital natives, the Millennial. Over the past decade, as Internet-related technologies have progressed, market mavenism has been shifted from

TABLE 1. Reliabilty results.

Constructs and Measurement Items	Standardize Loadings [a, b]	Construct Reliability	Cronbach's Alpha
Polychronicity		0.984	0.984
PCY1	0.877		
PCY2	0.889		
PCY3	0.939		
PCY4	0.939		
PCY5	0.941		
PCY6	0.955		
PCY7	0.942		
PCY8	0.952		
PCY9	0.941		
PCY10	0.873		
Perceived Ease of Use		0.943	0.943
PEU1	0.810		
PEU2	0.789		
PEU3	0.836		
PEU4	0.771		
PEU5	0.748		
PEU6	0.851		
PEU7	0.854		
PEU8	0.791		
PEU9	0.781		
Perceived Usefulness		0.923	0.926
PU1	0.747		
PU2	0.775		
PU3	0.844		
PU4	0.821		
PU5	0.787		
PU6	0.795		
PU7	0.738		
PU8	0.780		
Intention to Use		0.916	0.916
IU1	0.728		
IU2	0.811		
IU3	0.815		
IU4	0.868		
IU5	0.805		
IU6	0.790		
Actual Use		0.977	0.977
AU1	0.967		
AU2	0.965		

TABLE 1. *(Contiued.)* Reliabilty results.

AU3	0.967		
AU4	0.926		
E-mavenism		0.917	0.919
EM1	0.850		
EM2	0.895		
EM3	0.819		
EM4	0.863		
Perceived Playfulness		0.927	0.926
PP1	0.872		
PP2	0.894		
PP3	0.907		
PP4	0.812		

Notes — a: Factor loadings (significant at p = .001)
b: Items retained (post purification process)

physical setting to the virtual world (i.e. Internet). Because of this advancement, the existence of Internet maven is originated in online communities and they are enthusiastically concerned in virtual communication and trialing the latest services and products.

The advancement of the 'market e-mavens' concept has been expanded due to virtual information, activities, and the emergent significance of electronic word-of-mouth [78] or 'Internet mavens' [42].

Though online consumers are different in the utilization of hours spared on-line, search behavior and the possibility for shopping [80] yet the standard rate of Internet adoption has increased than any other virtual forum [81].

A virtual impression of the market mavens could be expressed as Internet mavens. Internet mavens are projected to carry comprehensive awareness concerning online marketplaces. An Internet maven has the sense to seek out and disseminate information to other individuals, who will be anticipated to get information owed by mavens' thorough sophisticated internet skills [42]. The prevalent attractiveness of social media sites recommends that virtual technologies have been flourished since the usage and acceptance in the individual, professional, and communal existence of users. If social media usage behavior of the individuals is mostly intended, subsequently the basis of such behaviors has to ingrain in the personal motives and intentions [32].

During activities related to SNSs, when a user is engaged, experiences the remuneration, and builds up a prospect IU. The prospect intention guides to advancement in commitment with the SNSs, an approach that is reliable and steady with the intentions shaped from experience and previous knowledge. This causality facilitates to enlighten the profound SNSs acceptance. Thus, it is proposed:

Hypothesis 4 [H4]: E-Mavenism Has a Positive Influence on Intention to Use SNS[S].

TABLE 2. Inclusive statistics and validity [Convergent and Discriminant] matrix.

Constructs	AVE	MSV	1	2	3	4	5	6	7
			PCY	PEU	PU	IU	AU	EM	PP
1. PCY Polychronicity	0.857	0.180	0.925						
2. PEU Perceived Ease of Use	0.647	0.127	0.186***	0.804					
3. PU Perceived Usefulness	0.600	0.292	0.411***	0.213***	0.775				
4. IU Intention to Use	0.646	0.366	0.425***	0.357***	0.540***	0.804			
5. AU Actual Use	0.915	0.316	0.391***	0.159**	0.337***	0.563***	0.956		
6. EM E-mavenism	0.735	0.366	0.330***	0.223***	0.465***	0.605***	0.505***	0.857	
7. PP Perceived Playfulness	0.760	0.106	0.094†	0.325***	0.104†	0.308***	0.183***	0.181**	0.872

Notes: Along diagonal are square roots of AVE (Average variance extracted), Off-diagonal are inter-construct correlations.
MSV (Maximum shared variance), Significance of Correlations: † $p < 0.100$, * $p < 0.050$, ** $p < 0.010$, *** $p < 0.001$

F. POLYCHRONICITY

Time management orientation (TMO) is a distinct diverse construct that relates to a person's inclination pertinent to the time consumption. It has been tagged diversely in the literature as a preferred pattern of time utilization, time management style, time use orientation, time use strategy, and time management preference [45]. Individuals having polychronic TMO prefer to perform multitasking simultaneously [82].

Consumer behavior has a significant impact on the psychological trait (Time orientation). Nevertheless, the study has so far to search polychronicity as a determinant of TAM. One determinant that portrays persons to utilize time is polychronicity and has gained amplified consideration in consumer behavior study [45].

Individuals achieve higher on polychronicity handle multitasking through a chunk of time and are accessible to interruptions [83]. Polychronic individuals get pleasure from flipping between activities and possibly will effortlessly modify their concentration from one assignment to another. Polychronic people search for liberty and flexibility and anticipate others to disrupt them often [84]. Polychronic individuals have a preference for time-saving and generally mingle other activities with shopping [83]. Polychronicity is envisioned on a field, so more users like being affianced in and flashing amongst diverse activities, the more they are polychronic [85]. The communicating mode of the polychronic individual is appropriate, appealing, and engaging [86]. Polychronicity is quality. However, multitasking is a behavior that can be adjusted with different

TABLE 3. Model fit summary (Goodness of fit statistics).

Measures	Results
Chi-Square (x2) or CMIN	1622.866
Degree of Freedom (DF)	900
Normed Chi-Square (CMIN/DF)	1.803
Absolute fit measures	
Goodness of Fit Index (GFI)	0.845
Adjusted Goodness of Fit Index (AGFI)	0.822
Standardized Root Mean Square Residual (SRMR)	0.039
Root Mean Square Error of Approximation (RMSEA)	0.046
Probability of Close Fit (PCLOSE)	0.980
Normed Fit Index (NFI)	0.917
Relative Fit Index (RFI)	0.909
Incremental Fit Measures (IFI)	0.961
Tucker-Lewis Index (TLI)	0.957
Comparative Fit Index (CFI)	0.961

job requirements, workplace settings and the individual's status; for instance, psychological or physical [87].

Social media user's behavior is established by the intention to execute the behavior and intention for the function of the user's perceived social media advantages. ''Intention shows a decision that an individual executes a behavior or not, during a practice of psychological consideration, divergence, and commitment that might extend a noteworthy time'' [16]. Accordingly, it is projected:

TABLE 4. Full path results of HUMP model.

Path	Regression Weights			
	Estimates	S.E	C.R	P
Hypothesis 1 *[H1]*				
Intention to Use SNSs ← Perceived Usefulness	.241	.043	5.565	***
Hypothesis 2 *[H2]*				
Intention to Use SNSs ← Perceived Playfulness	.228	.062	3.690	***
Hypothesis 3 *[H3]*				
Intention to Use SNSs ← Perceived Ease of Use	.168	.050	3.329	***
Hypothesis 4 *[H4]*				
Intention to Use SNSs ← E- Mavenism	.340	.043	7.990	***
Hypothesis 5 *[H5]*				
Intention to Use SNSs ← Polychronicity	.132	.033	4.011	***
Hypothesis 6 *[H6]*				
Actual Use of SNSs ← Intention to Use SNSs	.833	.067	12.356	***

Notes: ***$p < 0.001$, C.R (Critical Ratios) represents t-values, S.E represents standard error, Estimates (Un-standardized)
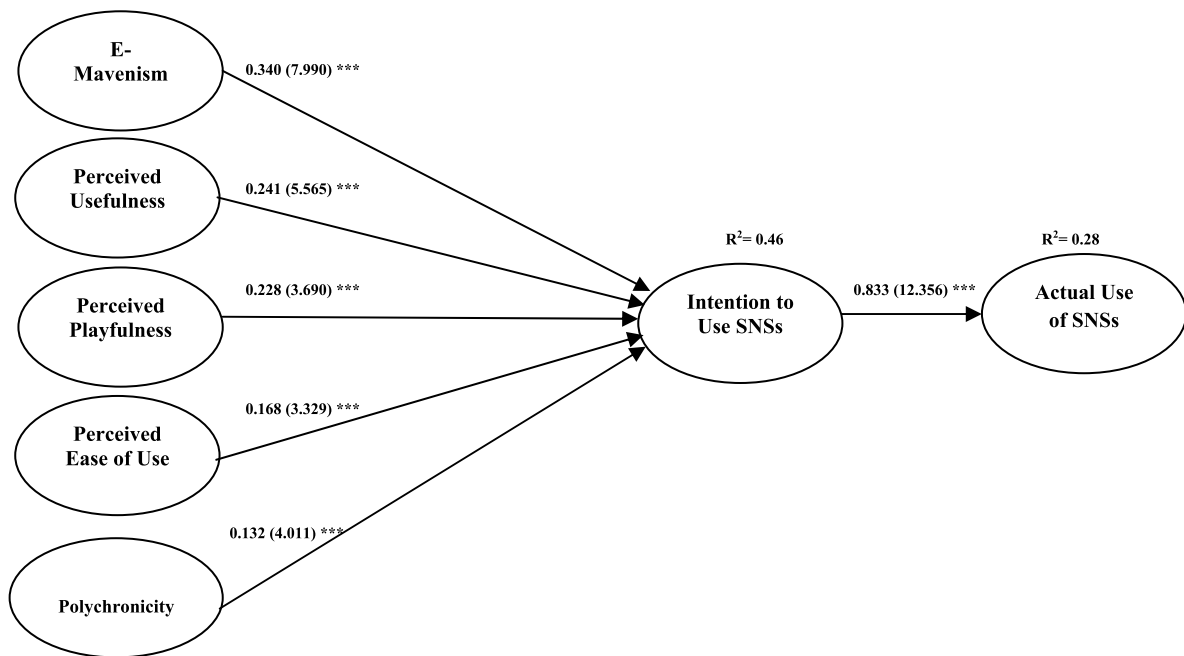
FIGURE 2. Structured solution (SEM). Note: ∗∗∗ Significant at the level 0.001. The values inside parentheses represents C.R (Critical Ratios i.e. t-values) and outside parentheses are un-standardized estimates.

Hypothesis 5 [H5] Polychronicity Has a Positive Influence on Intention to Use SNS^S:

G. INTENTION TO USE AND ACTUAL USE

The literature on the intention to use refers to one's intention to purchase, acquire and usage of a novel technology [88], [89].The survival of, e-commerce is under extensive pressure to augment their profitability productivity and, consequently, numerous e-commerce executives are searching for technology to improve and sustain their competitive advantage [90]. Adoption stands for assurance and constant usage of technology. Ensuring from TAM, the determinant of the AU of SNSs is behavioral IU. TAM [38] explores that BI is considerably associated with the usage. Thus it is established that computer usage can be envisaged through intentions.

Moreover, BI is engaged in recreation and perform a vital part in foretelling behavior [55]. The TAM has acquired significant distinction, principally because of its potential to enlighten variance in the use of intentions or technology usage. [18]. Despite the diversity of models, the research landscape has been subjugated by the TAM, a generally used model to depict IU and AU of technology [18], [91]. Behavioral intentions are linked with actual behavior [64].

Empirical substantiation in other TAM research is to grasp BI, a consistent predictor of usage behavior [21], [92]. Predominantly, TAM proposes that behavior intention can be determined by system usage [93]. Hence it is anticipated:

Hypothesis 6 [H6] Intention to use SNS^S Has a Positive Influence on Actual Use of SNS^S:

TABLE 5. Hypotheses test results.

Hypotheses	Result
Hypothesis 1 [H1]: Perceived usefulness positively affects Intention to use SNSs.	Supported
Hypothesis 2 [H2]: Perceived playfulness positively affects Intention to use SNSs.	Supported
Hypothesis 3 [H3]: Perceived ease of use positively affects Intention to use SNSs.	Supported
Hypothesis 4 [H4]: E-mavenism has a positive influence on Intention to use SNSs.	Supported
Hypothesis 5 [H5]: Polychronicity has a positive influence on Intention to use SNSs.	Supported
Hypothesis 6 [H6]: Intention to use SNSs has a positive influence on Actual use of SNSs.	Supported

IV. METHODOLOGY

A. DATA COLLECTION

For data collection, an online survey was conducted. Through convenience sampling, subjects were drawn from 500 enrolled students at a known university of P.R.China. University students are frequently used as participants in SNS research as they signify a group of energetic SNS users [94], [95] The students were contacted via email enrolled in Information Systems major. The Chinese social networks: WeChat, QQ, and Weibo (frequently and commonly used social media apps in China, as well as substantial enterprise publicity platforms) were incorporated for gathering data [96], [97]. Over four weeks, 433 responses were composed. For analysis, 387 were retained, provided a purposeful response rate of 77%. There were 42 % females and 58 % males among respondents. Almost 59% and 30% of the study samples were amongst the age group of 16-25 and 26-35, respectively.

B. MEASUREMENT OF CONSTRUCTS

To measure all the factors of the HUMP model formerly validated scales were adapted. To some extent, a few of the scale items were somewhat modified for the present study. During the survey, all the study items were measured using seven-point Likert-type scales (From 7 = strongly agree to 1 = strongly disagree), except demographic variables. Seven-point Likert scales seem to be more appropriate to the online distribution of usability inventories [98]. All measures (questionnaire) were interpreted first in Mandarin Chinese then free back-translation by three local Chinese graduate understudies who were eloquent in English and Chinese for Chinese respondents [99]. A language and communication teacher cross-checked the questionnaire to make sure translation accurateness. No major inconsistency in conversion was found.

The sources of survey items are follows: PU was measured using 3 items adapted from [5] and 5 items by using scale adapted from [32], PEU was assessed using 4 items adapted from [5] and 5 items by using scale adapted from [32], PP was measured using 6 items adapted from [5], EM was measured using 5 items adapted from [42], PCY was measured using 10-items adapted from [100], IU was evaluated using 3 items adapted from [5] and 3 items by using scale adapted from [32], and AU was measured using 3 items adapted from [5] and 2 items were adapted from [101]. The complete detail of the study constructs is shown in Appendix.

V. ANALYSES AND RESULTS

Structural equation modeling (SEM), a casual modeling method comprising of two steps was applied to evaluate the study model, reliable with the commendation of Anderson and Gerbing [102] through AMOS. In the initial step, the confirmatory factor analysis (CFA) was utilized to purify the measurement model, subsequent in step two, the structural model was assessed by testing the anticipated hypotheses,

To measure the research model, CFA was applied to establish the reliability and validity of the multi-item measures. For establishing the paramount measurement model, we excluded four items on three constructs that had high cross-loadings or did not possess good item reliability to purify the model. All remaining items had substantial loadings on their corresponding construct.

For the present research, recorded values remained good and over the threshold 0.70 [103], (TABLE 1)

Moreover, the values of average variance extracted (AVE) were in the range from 0.600 to 0.915, and the amount of variance extracted by the scale items measuring the constructs was greater than shared variances of the corresponding constructs; study further observed maximum shared variance (MSV) is less than AVE, and the correlation between any pair of constructs was not larger than the corresponding square root of the AVE for all measures respectively (TABLE 2). Therefore, convergent as well as discriminant validity, was established. Hence, the confirmation pointed out that the measure scales' adapted for the present study had sufficient psychometric quality and can be used in the next phase of analysis.

Multiple fit criteria were deployed to obtain the inclusive model fit. The fit indices were in the accepted thresholds as recommended by [104] , [105]. The suggested threshold

TABLE 6. Construct measures.

Constructs	Items	Scale Adapted
Perceived usefulness (PU)	**PU1.** SNSs help me to be more effective. **PU2.** SNSs help me to be more productive. **PU3.** The SNSs require the fewest steps to accomplish what I want to do with it. **PU4.** Using SNSs enable me to get re-connected with people that matter to me. **PU5.** I find SNSs useful in my personal life. **PU6.** Using SNSs enhance my effectiveness to stay in touch with others. **PU7.** Using SNSs make it easier to stay in touch. **PU8.** Using SNSs make it easier to stay informed with my friends and family.	Perceived usefulness was measured using 3 items adapted from [5] and 5 items by using scale adapted from [32].
Perceived Ease of Use (PEU)	**PEU1.** I quickly learn how to use SNSs. **PEU2.** The SNSs are simple to use. **PEU3.** I easily remember how to use SNSs. **PEU4.** It was easy to learn how to use SNSs. **PEU5.** SNSs are flexible to interact with. **PEU6.** I find it easy to get SNSs to do what I want to do. **PEU7.** It is easy to become skillful at using SNSs. **PEU8.** I find SNSs easy to use. **PEU9.** Interaction with SNSs is clear and understandable.	Perceived ease of use was assessed using 4 items adapted from [5] and 5 items by using scale adapted from [32].
Intention to Use SNSs (IU)	**IU1.** I plan to use SNSs over the next six months. **IU2.** I intend to use SNSs over the next six months. **IU3.** I intend to use SNSs frequently over the next six months. **IU4.** I intend to use SNSs for communicating with others. **IU5.** I intend to use SNSs to get reconnected with people that matter to me. **IU6.** I will continue to use SNSs.	Intention to use was evaluated using 3 items adapted from [5] and 3 items by using scale adapted from [32].
Actual Use of SNSs (AU)	**AU1.** How frequently do you use SNSs? **Infrequent** [1=extremely, 2=quite, 3= slightly, 4=neither. 5=slightly, 6=quite, 7=extremely] **Frequent** **AU2.** How often per week do you visit your SNSs account? (1=never, 2= very rarely, 3=rarely, 4=occasionally, 5=often, 6= frequently,7= very frequently) **AU3.** How many hours do you use your SNSs account every week? (1=0-2 hours, 2=2-4 hours, 3=4-6 hours, 4=6-8 hours, 5=8-10 hours, 6=10-12 hours, 7=more than 12 hours) **AU4.** I use SNS for my shopping activities per day. **Infrequent** [1=extremely, 2=quite, 3= slightly, 4=neither. 5=slightly, 6=quite, 7=extremely] **Frequent** ***AU5.** On average, how many different SNSs do you visit in a month? (1=none, 2=less than 5, 3=6-10, 4=11-15, 5=16-20, 6=21-25, 7=over 30)	Actual use was measured using 3 items adapted from [5] and 2 items were adapted from [101]. Actual use items were measured by using Interval-scale.
Perceived Playfulness (PP)	**PP1.** Using SNSs give enjoyment to me. **PP2.** Using SNSs give fun to me. **PP3.** Using SNSs keep me happy. **PP4.** Using SNSs stimulate my curiosity. ***PP5.** Using SNSs lead to my exploration. ***PP6.** Using SNSs arouse my imagination.	Perceived playfulness was measured using 6 items adapted from [5].
E-Mavenism (EM)	**EM1.** I like using information collected from the SNSs to introduce new brands and products to my family and friends. **EM2.** I like helping my family and friends by using SNSs to provide them with information about various kinds of products and services. **EM3.** My family and friends often ask me to search for the SNSs to provide them with information about products, places, and sites to shop, sales, etc. **EM4.** If someone wanted to know which SNSs had the best bargains on various types of products and services, I could tell him or her. ***EM5.** My family and friends think of me as a good source of information from the SNSs when it comes to new products, sites to visit, sales, etc.	E-mavenism was measured using 5 items adapted from [42].
Polychronicity (PCY)	**PCY1.** I like to juggle two or more activities at the same time. **PCY2.** I prefer to do two or more activities at the same time. **PCY3.** I typically do two or more activities at the same time. **PCY4.** I am efficient in doing two or more activities at the same time. **PCY5.** I am effective in doing two or more activities at the same time. **PCY6.** I feel more approval from those around me when I am doing two or more activities at the same time rather than a single activity. **PCY7.** I change from one activity to another a lot more than other people. **PCY8.** I am comfortable changing from one activity to another a lot more than other people. **PCY9.** I enjoy changing from one activity to another a lot more than other people. **PCY10.** I feel energized when I change often from one activity to another.	Polychronicity was measured using 10-items adapted from [100].

* Items dropped from the analysis

value of "0.8 as good fit" was followed in the deliberation of GFI and AGFI measures recommended by [106] and [107] (TABLE 3).

For structural model analysis, AMOS was used to empirically test the hypotheses. All of the hypothesized relationships were fully supported (TABLE 4).

The findings put forward that PU, PEU, PP, PCY, and EM put forth positive and significant influence on IU (FIGURE 2). E-mavenism has the sturdiest influence on IU of SNSs (β = .34, p <.001), subsequently PU (β =.24, p <.001), PCY (β = .17, p <.001), PP (β = .15, p <.001), and PEU (β = .13, p <.001). Thus, Hypotheses 1, 2, 3, 4, and 5 are completely supported. The statistical measure reflects that 46 % of the variance for intention to use SNSs is explained by all (EM, PU, PCY, PP, and, PEU) that have a significant positive effect on IU. As anticipated, the actual use of SNSs persuaded to be positively linked to the IU of SNSs (β = .53, p <.001), consequently confirming H6, further it represents 28% of the variance for AU of SNSs is explained by IU of SNSs, which is influenced by five predictor variables. Hence the HUMP model is fully significant (TABLE 5).

VI. DISCUSSION

This research explores the role of the influential elements to an individual's IU and AU of SNSs. The theoretical base of this research is resultant from acceptance models and BI, which are adapted to show factors related to hedonic and utilitarian usage of technology. The validity of the HUMP model and the associations amongst its determinants are analyzed through SEM for the Chinese consumers. The empirical analysis of the model confirms that a user IU SNSs is notably influenced by e-mavenism and polychronicity. The outcomes imply that the HUMP model is vigorous with tremendous capacity to envisage IU and SNSs usage.

A. IMPLICATIONS FOR INFORMATION SYSTEM RESEARCHERS

Present research introduces the HUMP model and adds in technology acceptance research by adding together an exclusive amalgamation of e-mavenism and polychronicity. Contrasting other studies by using the TAM model, this research explores that PEU and PU, while significant, are not the sturdiest indicators of BI. Results presented through the present research argument the implication analyzed in the study of King and He [108] if there is the only a predictor in the study than PU, of course is the only choice. The present study sustains [26], [109] affirmation that the type of system use (utilitarian or hedonic) definitely effect when it comes to extrapolative significance. The main objective of an e-commerce website is to retain effective communication and efficient interface to boost online vendors and consumer trust. Online business strategies should be adjusted by practitioners believing consumer cognitive innovativeness essential to boost up e-commerce and gain the required results [110]. Furthermore, current research holds up the proposition by [111], [112] that the kind of technology might be influential, with respect to TAM giving excellent results with some technologies as that of the others. As a result, the sturdiest determinants of IU SNSs reflected in hedonic as well as the utilitarian context in the present research, are e-mavenism and perceived usefulness.

Utilitarian technologies related research have established playfulness as the weakest indicator [21], [113] but according to other studies [26], [114], results that playfulness is a stronger indicator (in a hedonic framework) of IU than usefulness. The users who recognize technology as playful conceivably will watch that technology is simple to utilize since the delight picked up by its utilization exceeds the exertion exhausted to utilize it, recommended by [115]. This conceivably will offer assistance out to clarify why PEU isn't a solid pointer of IU. It analyzes that users who assume their communication through movable gadgets as playful utilize gadgets further routinely as that of users who don't recognize their communication as playful [116]. Information system/Information technology infrastructure facilitates the procedure of searching, retrieving and accessing information faster [117]. The most robust indicator of IU is e-mavenism, which involves computer-mediated communication technologies, the advantage that is resultant from using SNSs as its usage increases and is capable to formulate visibility to their social networks. The initial uses of SNSs are influenced by e-mavens, others possibly will be imperative but its significance diminishes as regular usage is recognized. E-mavens and polychrons are in an effort to convince other users for using SNSs, which can have a constructive influence.

B. IMPLICATIONS FOR INFORMATION SYSTEM PRACTITIONERS

SNSs service providers must make a guarantee that the highlights displayed to their clients bolster playfulness and usefulness. To proliferate business model social network amenities should entrust on escalating network externalities for economies of scale. The present study explores that polychronicity is one of the strongest indicators of IU SNSs. To magnetize polychronic users' social network service providers should continuously find novel approaches. Features that ease SNSs usage e.g. WhatsApp feature permits users to look at other users' profiles, the introduction of other new features should be the main concern in an endeavor to constant enhancement and progress of these sites. Business firms can boost their economy relying on their innovative abilities [118]. This research also explores that e-mavenism is a noteworthy predictor of IU SNSs. Hence, the practitioners should be responsive that e-mavenism is fabricated from market mavenism and highlights exploring and publicizing product/market information virtually.

VII. LIMITATIONS AND FUTURE RESEARCH

Some limitations have been found by present research which could be implicated prior to generalizing the results and suggesting future research. First, our respondents were from one Chinese university, for future study the respondents could be undergraduates and graduates from different disciplines studying at different universities in China. Students are one of the prime targets of SNSs so the selection of students would be suitable. Second, the individual divergence influence tech-

nology acceptance and usage of innovative technologies, and thus how SNSs users understand this technology. In future research should be conducted to determine particular cultural divergences, as the social networking sites are an international trend, the results of such study could be employed for users of diverse cultural orientations. Third, this study observes respondents who are using or have listened to social networking sites, additionally, studies about the choices besides perceptions of non-users could be very important for consideration of the mavens in regard to non-users and users acceptance. It is suggested particularly to broadening the model to diverse form of sites, used for utilitarian and hedonic function; and in diverse countries to the user and non-user buddies.

Fourth, with the introduction of the HUMP model, the present research has grounded a base for future study of IU and AU of social networking sites. With the technological progress, security issues have also been raised [119]. In technology acceptance models, researchers should explore design and features, like technologies that improve visual and functional control designs for the users. In the future, researchers could endeavor to utilize qualitative data gathering procedure like focus group interviews or semi-structured to harmonize their data assessment. Fifth, future researchers could comprehend SNSs user acceptance in work perspective and by means of employees/professionals as research matter. Particularly, less survey has been conducted about the university workforce, TAM and SNSs studies rarely paid attention to professionals' viewpoint and thus could be considered for the future. Adding up, future research may possibly be conducted from the perspective of emerging countries, focusing on the justification of the TAM over the cross-cultural framework.

CONFLICT OF INTEREST STATEMENT
The authors declare that they have no conflict of interest.

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APPENDIX
see Table 6 Here.

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