

THE IMPACT OF ATTRACTIVENESS, CONTENT, REPUTATION, AND TRUSTWORTHINESS OF SOCIAL MEDIA INFLUENCERS ON PURCHASE INTENTION AMONG YOUNG ADULTS IN PUNJAB, PAKISTAN

Nabeel Abdullah¹, Morakinyo Dada and Rohizan Binti Ahmad

Asia Pacific University of Technology and Innovation, Malaysia

Abstract. Changer Advertising has turned into a crucial campaign method globally because of the organic plus reputable method of providing communications towards the potential audience through customized plus customised type of conversation. Therefore, the particular increase associated with social networking influencers having various personas in order to types of viewers. The effect associated with social media marketing influencers is rich in the very first globe nations like the Oughout. H. and the ones within the traditional western European countries, however it has been not clear with regard to Pakistan. You will find previous research around the effect associated with particular characteristics associated with social websites influencers, as well as the social networking influencers generally, within the buy purpose of shoppers various nations, yet non-e around the youngsters within Punjab, Pakistan. Consequently , this particular research has been carried out to get the influence associated with appeal, content material, status, plus standing of social networking influencers upon buy purpose amongst youngsters inside Punjab, Pakistan. It was the quantitative research to look for the partnership between impartial factors which are elegance, content material, status, in addition to dependability, using the reliant adjustable that is obtain purpose. The particular carried out assessments were carried out making use of Wise COULD YOU a few. zero software program. The particular study has been dispersed by way of web in order to 121 adults ageing eighteen to be able to twenty five throughout Punjab, Pakistan. Typically the results exposed that this

most powerful, substantial, and even good partnership was among reliability (of social media marketing influencers) and buy objective. As the poorest partnership had been in between charm and buy goal. Helpful suggestions are presented to academicians, companies, influencers, entrepreneurs, together with long term experts.

Key phrases: Social networking; On the internet Buy Purpose; Millennials; Marketing and advertising

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INTRODUCTION

The particular trend from the Web plus social networking comprising online communities, social networking influencers possess progressively surfaced in addition to obtained acknowledgement internationally. As a result, social media marketing changer is really a brand new kind of impartial thirdparty endorser that stations the particular behaviour in the target audience with the use of social websites (Freberg in ing., 2010). This kind of influencers in many cases are accepted as legitimately important by way of a fans; nevertheless , there are several bogus influencers upon social networking (Burns, 2019). Social networking influencers frequently up-date their own fans along with brand new info to interact together (Liu ainsi que ing., 2012).

Individuals browsing on the web often begin subsequent social media marketing influencers because of progress attention, and they begin thinking almost anything stated simply by these types of influencers about social websites. Data display that will 49% of shoppers online are usually determined by typically the suggestion associated with this kind of social media marketing influencers, and even almost 60 per cent regarding elegance together with style manufacturers make use of a social networking changer technique (Lien, 2018). Manufacturers are actually making use of totally free plus compensated influencers to promote the items in addition to solutions on offer by simply all of them, within attempts to improve the particular brand name consciousness together with from the services and products. Saladworks, a series associated with quick informal dining places, utilized a mixture of sixteen social networking influencers to promote for that chain's products at a restaurant, which usually as a result obtained 381, 500 supporters with regard to Saladworks in Instagram that is a movie plus picture discussing social network system (Greenwald, 2019). These types of influencers take social

media marketing as a result of this as being an impressive technological platform. Actually based on data, twitter advertising costs globally amounted in order to nearly UNITED STATES DOLLAR \$27 billion dollars (Guttmann, 2019).

In comparison to celebs when it comes to celeb recommendation, the particular social networking influencers are usually regarded as a lot more educated, reliable, and even reputable because of the amiability within creating relationship together with customers (MM Kamruzzaman et. al 2022). Consequently , businesses ask well-known social websites influencers using huge fans on the social networking balances to become their own brand name ambassadors. Communications simply by social media marketing influencers are usually regarded as reliable as well as the customers see them persuasive and therefore their particular buy purpose will be affected, this really is backed simply by 82% involving followers' forms which usually mentioned that this people are more prone to the actual suggestions plus guidelines of the preferred influencers (Talaverna, 2015). Within advertising, recommendation is considerably important for a business to attain good status together with company objectives (Lim ainsi que 's., 2017). When compared with superstars, typically the social media marketing influencers usually are seen as budget-friendly plus economical simply by companies (Patel, 2016).

The particular Islamic Republic associated with Pakistan is really a nation situated in Southern Asian countries. The particular management device associated with Pakistan offers 4 pays (Punjab, Khyber Pakhtunkhwa, Sindh, plus Balochistan), 2 independent areas (Gilgit Baltistan in addition to Azad Jammu and even Kashmir) along with a federal government place (Islamabad Funds Territory). In line with the data attained from your 6th decennial census carried out within the 12 months 2017, Pakistan's populace was approximated to become 207, 774, 500 for your 12 months 2017 (Pakistan. Agency associated with Data, 2019a). Based on an investigation study, 98% with the participants make use of web and they are conscious of social websites systems, from which often 42% make use of these kinds of programs every day (Naqvi, 2015). An additional figure demonstrated that will ninety two. 07% associated with social networking program customers are upon Fb since Sept 2019 (Statcounter, 2019).

Problem Statement and Objectives of the Study

Within Pakistan, the particular appeal associated with social networking influencers is usually discussed with regards to traveling product sales within companies. Nevertheless , there

is absolutely no investigated proof that will indicates the result within Pakistan. Within Spain, appeal regarding social networking changer is located in order to apply impact upon buy intention (Rebelo, 2017). Content material associated with social media marketing influencers is vital in order to put in preferred effect upon audiences. Inside Pakistan, you will find influencers apply fake plus lower-quality happy to their own target audience which usually leads to much less impact about customers which consequently hard disks much less revenue. Between the factors that will lower-quality content material is created by social media marketing influencers within Pakistan, may be the insufficient worldwide monetization possibilities plus assistance (Uma Shankar Yadav, Nasir Mammadov, & Ravindra Tripathi. 2022). In addition, the information style will be bad because of entrepreneurs becoming modified to be able to bad styles with regard to ads in addition to paper prints. Research discovered of which excellent content offers substantial affect upon buyers (Vinerean, 2017). An additional issue would be that the social websites influencers are certainly not getting help within Pakistan because they are usually regarded as ignorant and virus-like versions observed in TikTok social networking system given that each sorts are usually dedicated for making video clips usually, therefore they often having to possess a good status within the community very easily (MM Kamruzzaman et. al 2022). In terms of People in america, study data pointed out that will social networking changer advertising is approved like a way of advertising for many from the grown ups making use of social media marketing (GlobeNewswire, 2020; IZEA, 2020). Standing of social websites influencers can be another element involving concern inside Pakistan. Due to the recognized proven fact that a lot of this kind of influencers are usually compensated to advertise items, individuals are frequently not wanting to understand if the changer is reliable for his or her suggestions. Hearn and Schoenhoff (2016) pointed out that will social networking influencers work to create a kind of celeb funds simply by obtaining interest whenever possible and even producing individual manufacturers which are designed because genuine through social media marketing, that are functional simply by online marketers with regard to client outreach (Y. Shi et. al 2020). There is certainly inadequate info released about how social websites influencers impact the obtain purpose one of the youngsters within Punjab, the state associated with Pakistan, regardless of the presence in the Web together with social networking influencers for over a new 10 years.

This particular studies targeted to recognize exactly how social media marketing influencers impact the buy purpose regarding youngsters throughout Punjab, Pakistan.

LITERATURE REVIEW

2.1 The Theory of Reasoned Action

This particular concept says that this behavioural purposes happen instantly prior to behavior (Fishbein and Ajzen, 75; Madden ainsi que. ing., 1992). The bottom of the principle may be the concept that individuals make use of the obtained info within an organised plus organized way in line with the subsequent factors: Mindset towards behavior, in addition to interpersonal stresses (Belleau ou 's., 3 years ago; Chibab as well as Abderrezzak, 2016). The particular mindset of the person towards the particular conduct and even their own very subjective tradition figure out the partic- ular purpose individuals, which means typically the purpose will act as the specific behaviour's primary determinant (Meskaran, Ismail and Shanmugam, 2013). Very subjective tradition is considered based on ordre values. Ordre values are usually considered worried about the chance that will colleagues along with other individuals crucial to a person might accept or even deplore the particular behavior's carrying out from the personal (Meskaran, Ismail as well as Shanmugam, 2013). Believe in can also be a vital element, which usually stimulates customers to create buys on the web and off-line, together with substantially effects typically the buying intents of shoppers particularly when consid- ering coping with new companies suppliers on websites online, due to higher doubt amounts regarding on the internet dealings (Safari 2014). Nevertheless , the particular uncertainty reduces on the presence of believe in among 2 or- ganizations, this could happen because of good status. People are discovered worried regularly concerning concern, offering there may be embrace price plus uselessness from the item (Chibab and Abderrezzak, 2016). A substantial restriction is present within on-line buy because of the insufficient rely on (Rahi, Ghani and Muhamad, 2017). Higher level associated with believe in leads to optimistic perspective plus increased buy purpose, both in on the internet and off-line buying (Chibab and Abderrezzak, 2016). Consequently , in the event that an specific cartouche a business, typically the recognized dangers related to on the

internet buying is going to be reduce.

Attractiveness

Appeal simply by Erdogan (1999) will be explained to become a belief associated with good relationships for a person plus involves features like sports capability, bodily appeal, plus character. Based on Ohanian (1990), elegance consists of understanding, likeness, plus likability. In addition, together with interpersonal ideals, they have related to general belief regarding appearance, character, in addition to likeness towards the target audience. Influencers that are actually appealing effect on several reliant steps, and so on influencers in many cases are loved, considered, plus favored in order to get an optimistic impact on items compared to unappealing influencers (Joseph 1982). Influencers recognized interesting much more likely result in buy intention (Van dieser Waldt, vehicle Loggerenberg and Wehmeyer, 2009). Appeal is considered a key point with regard to efficient information advancement (Schlecht, 2003). Current study implies that charm of the Social networking Changer is recognized as, whenever they are identified simply by Instagram customers because eye-catching, gorgeous, elegant, stylish, or even attractive (Ohanian, 1990; Rebelo, 2017). Appeal is deemed an important dimensions associated with recognized trustworthiness of the Social networking Changer, that will impacts obtain purposes involving Instagram customers (Rebelo, 2017). The social networking influencer's bodily appeal will be recognized to be able to extremely probably generate the particular marketing approval price, along with a previous studies have demonstrated a good relationship among magnificence and buy purpose (Lim ainsi que ing., 2017). Influencers having desirable functions create good mindset within clients as well as since order purpose inside all of them (Sokolova and Kefi, 2020). Inside a study, it had been discovered that will attraction of the elegance tumblr a new substantially optimistic effect on invest in purposes associated with woman consumers, since the actual physical natural beauty from the doodlekit added towards the associated with beauty items becoming advertised by simply displaying the software plus attractiveness outcomes (Hikmawati, 2019). An additional research says celebrity/influencer wonder includes a good impact upon buy objective (Arora ainsi que ing., 2019), Rawal et. al (2021), Poongodi M et. al(2022), Poongodi M et. al (2021), Ramesh TR et.al (2022), Ahila A et.al (2022), Muniyappan et. al(2022) , Y. Shi et. al (2020), Guobin Chen et.al (2020), Yuanjin Xu et.

al (2021), Ding Li et. al (2021) , Bin Yuan et. al (2021), Chi Z et. al (2021) , therefore literally beautiful influencers must be employed in order to effect buyers. Consequently , it is often outlined that will:

H1: There exists a good partnership among Elegance associated with Social media marketing Changer and buy Purpose amongst youngsters within Punjab, Pakistan.

Content

The word content material continues to be described in a variety of methods and for that reason, is usually a wide phrase. With regard to artwork, conversation plus posting, content material is understood to be info plus encounters targeted with regard to audiences (Odden, 2013). Content material will be grounded within the submitting, where terms in addition to pictures together with motion-graphics are made to become fascinating sufficient for that potential audience to get with regard to the particular author (Holliman and Rowley, 2014). Content material will be something which will be included and even indicated using a type of moderate like conversation, composing or even a skill item. Content material is deliverable via various press such as digital documents, movie theater, ebooks, reside occasions like meetings plus workshops, the web, stereo, together with tv (Guobin Chen et. al 2020). When it comes to social internet marketing, content material is described as a mix of components for example textual content, sound, plus visible information, to provide in order to target audience regarding seeing (Handley and Chapman, last year; Vinerean, 2017). This kind of articles is greatly seen simply by people upon social networking systems these days, particularly when discussed simply by social media marketing influencers (Vinerean, 2017). An investigation discovered that this content material produced by simply social websites influencers will be recognized a lot more reliable by way of a fans plus, to some degree, non-followers (Lou as well as Yuan, 2019). These kinds of helpful content material is usually discussed simply by persons intended for charitable factors (i. electronic. to assist others) or even with regard to self-enhancement reasons (i. electronic. to be knowledgeable) amongst others. Assisting incoming strategy associated with naturally achieving together with bringing in plus keeping clients, experts mentioned consumers would be the types that look for particular manufacturers because of their teaching or perhaps enjoyable articles (Halligan and Shah, the year 2010; Vinerean, 2017). Social networking influencers apply written content advertising ways of accomplish particular focuses on,

for example traveling product sales or even getting virality in addition to fans by simply discussing virus-like information. Information through Annalect and even Tweets demonstrated that will nearly forty percent regarding selected customers involving Tweets bought products because of a good influencer's twitter update which was contributed like a content material (Karp, 2016). The particular Social media marketing Influencers type customers' views upon services and products, plus convince buyers through content material advertising in a manner that clients can produce Buy Purpose (Glucksman, 2017). Inside a study, regarding 80 percent associated with e-marketers pointed out of which social networking influencers are usually endorsers that will increase e-businesses to raised amounts (Ward, 2017). Fans understand Social websites Influencers a lot more genuine within showing together with providing the items through articles marketing and advertising, resulting in buy purpose. Therefore, from your previous books quarrels, these speculation is usually created for even more research:

H2: There exists a good partnership among Content material associated with Social networking Changer and buy Objective amongst youngsters inside Punjab, Pakistan.

Reputation

A number of meanings can be found upon status, in fact it is frequently enigmatic in order to determine this the particular belief associated with something becoming trustworthy could differ for every person. Based on McIntosh (2013), popularity may be the viewpoint that individuals generally possess regarding somebody or even anything, or even just how much regard or even a thing gets, depending on previous behavior or even personality. Described through a fiscal viewpoint, status describes belief concerning a particular feature, like the capability regarding providing high quality services and products, while status will be described from the sociological viewpoint because public consciousness plus acknowledgement of the organization with regards to numerous characteristics in addition to stakeholder viewers (Rindova ainsique ing. 2005). Status is furthermore understood to be a good degree that someone seems assured on the seller's integrity plus take care of the customer, therefore, businesses along with good standing usually do not choose to stop eating their own popularity simply by acting opportunistically (Javernpaa, Tractinsky and Vital, 2k; Dachyar and Banjarnahor, 2017). Experts discovered that will trustworthiness of social networking influencers extremely affects consumer's mindset and buy purpose (Jung as well as Seock, 2016), due to the fact social

networking influencers really are a method to general public to allow them to determine and even connect on their own together with all those social media marketing influencers, and therefore the particular subsidized item plus brand name from the social networking influencers (Abreu, 2019). To enhance their particular interpersonal status, people are discovered to be able to adhere to the particular social media marketing influencers' communications. People that work as social media marketing influencers are noticed reputable because of their popularity, proficiency together with trustworthiness (Christou, 2015), because of that they may impact buy purpose from the customers (especially followers) simply by promoting products (Chatzigeorgiou, 2017). An additional study says good trustworthiness of a brandname may affect the man or woman buy objective, since the brand name gets attractive to typically the customers (Byrum, 2017). Status concerning something is better created depending on individual encounter (Ragas and Culp, 2014). In order to companies, status is really an useful intangible source that leads in order to getting competing benefit, and also to determine standing, the particular popular strategy will be press (Liu ainsi que ing., 2014). Like a multidimensional create, status will be assessed by simply third party rankings frequently, such as "Fortune The majority of Adored Companies" listing. Among the results of the qualitative study is that the particular trustworthiness of a new social networking changer is recognized as crucial to buyers (Lisichkova and Othman, 2017). Therefore, this speculation will be created for even more research:

H3: There exists a good partnership among Trustworthiness of Social networking Changer and buy Purpose amongst youngsters within Punjab, Pakistan.

Trustworthiness

Even though a lot of classifications associated with dependability by simply various editors plus students are present, usually the distinction among faith plus dependability can be blurry (Bauer, 2013). Reliability is thought as the particular mixture of this several tests on people: truthfulness, consistency, skills, plus health care (Feltman, 2009). Dependability can be explained simply by Lewis and Weigert (1985) because the quality in addition to high quality to be trustable. With that in mind, the idea of reliability depends upon your comprehending plus forecasting the amount associated with depend on (Colquitt, Martin as well as LePine, 2007). It absolutely was advised simply by Mayer, Davis and Schoorman (1995) there are several fea-

tures that will constitute believability: capability (i. ice. the particular conception on the having faith in bash in the trustee's skills, know-how plus skills); benevolence (i. a. typically the level that the particular trustee is certainly presumed from the trustor to do something within the welfare from the trustor); and even condition (i. at. the particular amount where the particular trustee is normally recognized because of the trustor to become working relative to the particular prices together with rules suitable for the trustor). Millennials take text messages of their shown admiration for social media marketing influencers since they rely on all of them (Chatzigeorgiou, 2017). A endorser provides numerous expertise within pair of requirements, that will impact typically the buy motive, including getting credibleness (Lisichkova and Othman, 2017). The greater the particular endorser matches conditions penalized a good endorser, a lot more likely they could effect typically the buy purpose of shoppers (Pornpitakpan, 2005; Sue, 2015). Individuals are observed to become almost certainly going to approve plus acknowledge a product or service in case advice arises from the social networking changer recognized for being trusted (Liu de surcroît way., 2015). Corporations team up along with Social networking Influencers which are regarded dependable simply by buyers, which come back supply the corporations a chance to affect consumers' buy objective not like the particular provided discussions that are regarded as an ordinary marketing and advertising method by simply customers (Kietzmann ainsiq ue 's., 2012; Kapitan and Silvera, 2016). An investigation done simply by Abreu (2019) disclosed that will amongst participants, 41% firmly arranged the fact that standing of social media marketing influencers is without a doubt bigger if they are definitely not paid out with a brand name currently being suggested by simply these people, whilst 21 years of age. 47% from the participants just simply decided regarding it. Consequently, the particular speculation might be created:

H4: You will find a good marriage in between Standing of Social media marketing Changer and buy Intent between youngsters within Punjab, Pakistan.

Purchase Intention

Buy purpose has been said in order to symbolize the particular wish from the customers to buy services and products from the particular store (Juhl, Kristensen and Østergaard, 2002). Additionally , buy purpose identifies typically the inclination in order to as well as the chance of acquiring the service or product recognized with a customer inside a fast buying

choice (Wu, Yeh as well as Hsiao, last year; Goyal, 2014). Buy objective offers generally already been discovered connected to be able to customer mindset, behavior plus belief (Mirabi, Akbariyeh and Tahmasebifard, 2015). An investigation from your previous implies that obtain purpose is really a procedure which has several phases included, 1st phase will be where the customer acquires information on the chosen brand name, accompanied by the 2nd phase where the buyer works evaluation in the feature with the item provided by the rand name to recognize if this fits the particular order goal from the buyer, then your 3rd phase is usually where customer believes of buying the item because of the obtained understanding in addition to evaluation, and finally your fourth phase where repurchase from your brand name is recognized as just on fulfillment (Tariq ainski que ing., 2013). Buy intent of the client could be interrupted simply by inner behavioral instinct and even exterior atmosphere (Jaafar ou ing., 2014). Haaji ainski que 's.

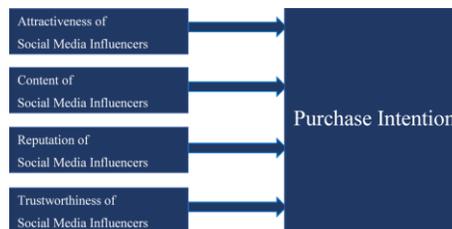
(2015) explained invest in motive as the person thinking exhibited following a comprehensive plus crucial assessment is completed from the customer to get a service or product, the person thinking may be affected simply by brand name choice, appeal of the item as well as status. Obtain purpose is crucial to entrepreneurs since it assists these to be familiar with method customers assess the options associated with manufacturers. Standing of a good endorser, regardless of whether the politics determine, celeb, or even social networking changer, can also be identified in order to impact the consumer's buy purpose (Lim ou approach., 2017; Wang ain way., 2017) An investigation exposed there is an optimistic partnership among social media marketing influencers and buy objective (Lim ain ing., 2017).

These conceptual platform was created together with suggested in order to demonstrate the particular 4 talked about aspects associated with social websites influencers that will impact typically the buy purposes amongst young- sters within Punjab, Pakistan.

FIGURE 1.

Research Framework

METHODOLOG



Research Design

Along with study viewpoint depending on positivism, via a cross-sectional research, the quantitative strategy using the use of a new self-administered set of questions was used to gather main information with the web making use of Search engines type, with all the study beliefs depending on positivism (Y. Shi et. al 2020). The technique associated with study was followed to gather quantifiable info with regard to evaluation in line with the analysis queries. The deductive technique has been accompanied by this particular examine that involves the particular development associated with speculation that is after that examined via a number of plans completely (Saunders, Lewis plus Thornhill, 2019).

Population and Sampling

Based on Pakistan's Office associated with Studies (2019a), the people associated with Pakistan within the time 2017 has been projected for being 207, 774, 1000. Breaking the list right down to Punjab, Pakistan's Department regarding Data (2019b) saved the citizenry involving 12, 012, 442 within the land associated with Punjab for any 365 days associated with 2017. Consequently , the particular hear structure integrated persons elderly eighteen in order to twenty-five associated with males together with woman sexes moving into the particular Lahore plus Islamabad locations inside the state regarding Punjab, Pakistan. To get a sturdy small sample dimensions, Raosoft had been combined with 92% level of confidence in addition to 8% perimeter involving problem in the number associated with Punjab domain. Typically the minimal song measurement associated with a hundred and twenty was initially recognized as advised; yet , 121 results have been gathered. In a few earlier research, 70% level of confidence plus 8% to be able to 10% perimeter regarding mistake are usually utilized plus between guidelines to pick from (Hightower as well as Martin, gmc; Rosdi, Ridzuan and Aziz, 2019; Abhirami as well as Zuharah, 2020); consequently, the particular mix of 92% level of confidence alongside and even 8% border involving mistake was regarded much better together with suitable with this review.

Analysis of Data

The information was fetched from your paid survey set of questions and set in to the SmartPLS a few. zero evaluation software program. SmartPLS a few. zero is the variance-based strength formula building software program along with visual interface that make utiliza-

tion of incomplete minimum pieces way of which route (Hair Junior ainsi que ing, 2017). The particular forms of assessments incorporated are usually discriminant quality, concourant abilities, inner regularity, predictive importance, multicollinearity, element charge, bootstrapping. Demo associated with discriminant quality needs proof that will way of measuring constructs which usually in theory must not be extremely associated with one another are not really discovered extremely correlating to one another (Hubley ou ing., 2014).

RESULTS AND FINDINGS

Reflective Measurement Model

The particular reflecting dimension design is generally used within study (Jarvis, MacKenzie and Podsakoff, 2003). Coltman ainsi que ing. (2008) mentioned that this refractive design could be recognized very easily via 3 conceptual requirements; you will associated with products utilized to determine the particular framework, the road associated with connection among valuable construction plus products, as well as the substance from the style. The particular confirmatory evaluation is targeted in order to type the connection between important factors as well as the signals. Throughout evaluation, experts should determine all of the aspects that are fundamental the particular steps that could prevent the particular unit match plus get rid of all those aspects to possess an appropriate design suit created (Shau, 2017) Consequently , to attain unidimensionality, typically the element charge should be zero. six in addition to over, otherwise has to be removed in case much less, because fewer factor towards the study will be pointed out simply by this kind of ideals (Wan Mohamad, Ahmad as well as Mamat, 2014). Consequently , these products were erased: ATT2 through Appeal; REP1, REP2 and REP3 coming from Status; plus PI4 by Buy Purpose. All of those other products were maintained.

Internal Consistency and Construct Validity

Cronbach's alpha dog plus amalgamated dependability are utilized from the specialist to check the particular depend- ability plus quality from the products plus aspects (Padilla and Scuba divers, 2016). The particular ideals associated with Cronbach's alpha dog in addition to blend stability which can be approved should be zero. seven or more (Srid- haran ainsi que ing., the year 2010; Zalma ainsi que 's., 2013). Desk one implies that almost all factors had been over zero. seven. In addition, the typical difference taken out (AVE) that will estimations

the variation's typical worth by which the indications are usually explainable with a valuable adjustable. The amount of tolerance regarding VOLÁTIL should be more than zero. five which may show since the create validity's proof (Shau, 2017). It really is highlighted within Desk just one that factors include SIMPLY HAD TO greater than zero. five within benefit.

TABLE 1.

	Cronbach's Alpha	Composite Reliability	AVE
Attractiveness	0.738	0.833	0.557
Content	0.799	0.861	0.556
Purchase Intention	0.880	0.917	0.735
Reputation	0.747	0.884	0.793
Trustworthiness	0.821	0.873	0.582

Results of Internal Consistency and Construct Validity

Discriminant Validity

The particular discriminant quality assessments each variable's originality contrary to the sleep plus guarantees simply no difference is discovered to become discussed together. Based on Ghadi ainsi que ing. (2012), this particular check is designed to exhibit right after one of the valuable adjustable within the exact same design.

TABLE 2.

	Attractiveness	Content	Purchase Intention	Reputation	Trustworthiness
Attractiveness	0.746				
Content	0.479	0.746			
Purchase Intention	0.373	0.577	0.857		
Reputation	0.352	0.473	0.586	0.890	
Trustworthiness	0.389	0.586	0.666	0.442	0.763

Discriminant Validity

Multiple Linearity (Collinearity Statistics)

Several linearity test out is important because it pinpoints the particular multi-collinearity that is regarded as issues once higher relationship is accessible among several factors (Vatcheva au même tire que ing., 2016). To try the presence of multi-collinearity, it is strongly recommended which the difference pumping point (VIF) for each adjustable must be driven by the particular experts as well as in situation the particular VIFs really are greater than 20, subsequently there exists a multi-collinearity trouble (Callaghan, Parkash and Singhal, 2008).

Predictive Relevance (R Square)

It really is pointed out within Desk a few that this associated with $L Sq$. will be zero. 569, meaning that 56. 9% associated with modifications in our reliant adjustable could be described or even expected from the impartial factors. In addition, this says the particular IVs (Attractiveness, Content material, Status, plus Trustworthiness) assistance 56. 9% associated with difference towards DV (Purchase Intention) amongst youngsters inside Punjab, Pakistan. Within COULD YOU versions, typically the $L Sq$. ideals associated with 067, zero. thirty-three, in addition to zero. nineteen are considerable, reasonable, and even poor, correspondingly (Henseler, Ringle and Sinkovics, 2009). Within Desk three or more, the cost of $Ur Sq$. is present among zero. thirty-three together with zero. 67 that are reasonable plus significant correspondingly, therefore, the worth will be suitable.

TABLE 3.

R Square	R Square Adjusted	
Purchase Intention	0.569	0.555

Square Summary Path Coefficients

Route rapport is usually utilized for identifying the particular associations amongst factors, and also help experts within analyzing typically the advantages associated with associations (Wong, 2016). Within Desk four beneath, it really is says the particular 4 which has typically the most powerful partnership along with Buy Purpose (DV), will be Dependability, accompa-

nied by Status, after that Content material, and finally Appeal.

Path Coefficients

Results Summary of Hypotheses

To create the effects associated with ideas, bootstrapping approach had been utilized. Bootstrapping is really an eating technique made to study the results variability (Streukens and Leroi-Werelds, 2016). Bootstrapping is frequently

TABLE 4.

Attractiveness	Content	Purchase Intention	Reputation	Trustworthiness
Attractiveness		0.015		
Content		0.177		
Purchase Intention				
Reputation			0.311	
Trustworthiness				0.419

applied as a result of this currently being simple plus see-through because it will not demand great understanding of likelihood together with math. This is a chosen technique considering that the record supposition are no constructive (Streukens as well as Leroi-Werelds, 2016). Bootstrapping small sample dimension picked because of this analysis was 5 various, 500.

TABLE 5.

Developed Hypothesis

H1: There exists a favorable romance among Attraction regarding Social networking Changer and buy Purpose.	0.219	0.826	Rejected
H2: There exists a good partnership among Content material associated with Social Networking Changer and buy Purpose.	2.149	0.032	Accepted
H3: There is a positive relationship between Reputation of Social Media Influencer and Purchase Intention.	4.357	0.000	Accepted

H4: There exists a good partnership among Standing of Social 5.533 0.000 Ac-
networking Changer
and buy Purpose. cepted

This particular study appeared to be carried out considering the bottom reason for deciding the partnership between your social websites influencers' charm, content material, status, dependability, and buy purpose amongst adults throughout Punjab, Pakistan. A good partnership involving good looks associated with social networking changer and buy objective was basically pointed out with the outcomes because of optimistic avenue division associated with zero. 015. Yet , results recommended that will partnership in between splendor regarding social networking changer and buy purpose is no significant (T sama dengan zero. 219, R sama dengan zero. 826) and for that reason, the particular ideas has long been refused. Because of this typically, the particular participants can be insensitive plus untouched from the appeal involving social media marketing influencers which are employed or perhaps entrusted regarding promo. In line with the route percentage associated with zero. 015, elegance associated with social media marketing changer has got the most fragile connection along with invest in objective, one of the self-sufficient parameters from the research.

Articles associated with social websites changer created a good romantic relationship along with acquire goal because of beneficial direction agent associated with zero. 177. Final results based on the particular evaluation help the particular speculation produced that will means that there is also an optimistic marriage (T sama dengan installment payments on your 149, S sama dengan zero. 032) among articles associated with social networking changer and buy intent; consequently, the particular speculation appeared to be approved. Typically the conclusions intended it can easily end up being designed by participants to buy by simply visiting the information furnished by the particular social networking changer in social media marketing furniture (Guobin Chen et. al 2020). In other words, there exists a trend amongst participants to get goods or even company simply by observing this great article showing upon networking communities. With the explore query over, typically the studies from the research can be in line with earlier times research performed by simply a lot of scientists (Karp, 2016; Glucksman, 2017; Vinerean, 2017). Karp (2016) described in the examiner that will practically forty percent

from the selected consumers associated with Forums obtained products as a result of social media marketing influencer's written content. Based on Glucksman (2017), information associated with social websites influencers influences the particular pay for motives with their enthusiasts. According to typically the record outcomes (path coefficients), articles being a self-sufficient adjustable is proven to possess an important effect on buy motive between youngsters within Punjab, Pakistan.

A confident in addition to substantial romance in between trustworthiness of social networking changer and buy objective appeared to be discovered in line with the effects (T sama dengan 5. 357, K sama dengan zero. 000). Depending on the particular executed research, the particular designed speculation which usually signifies that there is also a beneficial partnership involving trustworthiness of social media marketing changer and buy purpose, might be backed because of the benefits. Consequently, the particular speculation is usually acknowledged. Additionally, it really is mentioned from the results that participants plan to choose the product or service when the social websites changer promoting these people have got higher popularity. Therefore the greater typically the trustworthiness of the particular social networking changer, the particular more powerful the particular objectives of shoppers for making buy along with better propensity. With the study query over, typically the results in the scientific studies are usually like previous research done simply by various investigators (Jung and Seock, 2016; Lisichkova and Othman, 2017). Favorable trustworthiness of the social media marketing changer may drastically result the particular get objective of shoppers, as it helps the entire standing with the endorser (Lisichkova as well as Othman, 2017). This specific research shown of which trustworthiness of a new social websites changer is an essential aspect in changer marketing and advertising more than social networking systems that will is affecting buy purpose of shoppers toward services and products. In accordance with the outcomes associated with pathway rapport, popularity is the other maximum predictor. This kind of demonstrates standing provides a significant influence on obtain purpose amongst youngsters within Punjab, Pakistan.

In line with the results, it absolutely was verified there is a confident connection among standing of social net- working changer and buy purpose. The connection appeared to be discovered to get considerable (T sama dengan five. 533, Delaware sama dengan zero. 000) in

between standing of social media marketing changer and buy goal between youngsters inside Punjab, Pakistan. In accordance with the executed examination, the particular created speculation which often means that there exists a favorable romantic relationship involving standing of social media marketing changer and buy purpose, will be recognized with the effects. Consequently, the particular speculation is usually recognized. On top of that, it really is pointed out with the conclusions the participants want to purchase the goods and services in case the social networking changer marketing all of them own huge reliability. Consequently the greater the amount of standing of typically the social media marketing changer, the particular more powerful typically the purposes of shoppers to generate order along with bigger trend, since reliable influencers are usually regarded risk-free in order to count on. In addition, the particular studies and even outcomes linked to the analysis issue previously mentioned, are typically position together with arrangement with all the earlier scientific studies (Liu de plus 's., 2015; Kapitan and Silvera, 2016; Lisichkova and Othman, 2017; Wang as well as Scheinbaum, 2017). In accordance with Lisichkova and Othman (2017), standing of some sort of social websites changer is a characteristic that will effects client buy intent. Products suggested by simply social networking influencers are believed dependable by buyers (Chatzigeorgiou, 2017). By means of this kind of research, it truly is clear that will dependability can be an essential meant for social media marketing influencers to be able to affect the particular invest in motive of shoppers. In accordance with the benefits associated with method rapport, reliability is the very best predictor on the list of majority. This particular demonstrates standing of the social websites changer includes a remarkably important effect on acquire purpose amongst adults throughout Punjab, Pakistan.

RECOMMENDATIONS FOR BUSINESSES AND FUTURE STUDIES

With the results plus outcomes of this particular research, factor without a doubt has happened towards the entrepreneurs, influencers, in addition to companies. Sophie (2015) pointed out that will a third associated with advertising spending budget is going to be allotted with regard to electronic systems internationally, so that as the particular advertising will be greatly moved in the direction of electronic advertising, most of the particular advertising is going to be carried out more than social networking systems. Hutter ainsi que ing. (2013) de-

scribed that will social networking has been discovered to become a really suitable, efficient, and even achievable marcom device functional simply by manufacturers to fulfill their own marketing and advertising objectives. Entrepreneurs which are sceptical concerning the incorporation associated with social internet marketing to their advertising strategy will find this particular study as well as results advantageous since it is useful concerning the impact from the social media marketing influencers upon customer buy purpose regarding youngsters within Punjab, Pakistan. Based on the conclusions of the study, adults within Punjab understand standing of the social websites changer since the best characteristic that will effects the particular buy purpose. Online marketers, supervisors, together with organizations generally, is going to take into account the truth that standing of the social networking changer offers the particular most powerful partnership along with obtain objective from the youngsters inside Punjab, Pakistan. Therefore, companies may techniques preferable to incorporate the best influencers upon social networking within the advertising and marketing programs to offer the promoting objectives.

The particular studies plus outcomes of the research possess exposed that will one of the predictors, 3 (content, status, in addition to trustworthiness) possess good associations along with order goal. With this framework, several advantageous suggestions are usually suggested. First of all, marketplace evaluation must be carried out simply by online marketers to recognize their own correct target audience, after which make an advertising strategy along with precise goals to become accomplished. Following, related and even appropriate social media marketing influencers must be recognized together with chosen regarding changer marketing and advertising actions on the social media marketing systems, underneath the advertising program. In case changer advertising is not regarded as from the company, after that performing a new SWOT evaluation to create the best choice about the incorporation involving changer advertising is suggested. It is important intended for internet marketers to employ or even commission rate the perfect social websites influencers because their status plus dependability effect buyer buy intent highly plus lead to having a solid relationship among companies in addition to customers too together with reliable real reviews.

With regard to social networking influencers, typically the results plus outcomes of the study have got says appeal associated with social media marketing influencers possess a nonsignificant effect on invest in motive amongst adults throughout Punjab, Pakistan. The par-

ticular target audience instead looks for the particular popularity and even reliability because aspects associated with effect becoming shipped via high quality happy to become affected. Therefore, it is suggested to get social networking influencers to operate upon creating together with keeping their particular dependability plus standing between the viewers in order to capable to keep trustworthiness plus honesty within their information with regard to successful affect upon client acquire purpose. This is often carried out simply by advertising authentic items with no try associated with exploit in addition to trying to rip-off clients exclusively pertaining to financial advantages. Social networking influencers will also be advised to prevent questionable participation to safeguard their particular optimistic picture between the youngsters within Punjab, Pakistan. Because Pakistan is really a considerably traditional nation, influencers should prevent problem spiritual values of the market.

Regarding long term research, appeal regarding social media marketing influencers could be analyzed due to the fact that this analysis exposed just 3 beneficial predictors which are substantial, because of one of these (attractiveness) showing to become nonsignificant to be able to impact pay for purpose. The particular thinking involving elegance getting nonsignificant could be investigated by simply long term experts. In addition, some other predictors like experience, charm, racial, competition, along with other aspects of social networking influencers may be looked into. Furthermore, rather than cross-sectional strategy, longitudinal strategy could be chosen to find out within reactions through selected participants throughout any period of time of your time. Long term scientists may also follow qualitative study way of much deeper information and even nonquantifiable info which could offer higher understanding. In addition , a larger populace dimension could be analyzed meant for improved precision from the outcomes, this is often completed simply by which includes further towns together with pays associated with Pakistan such as. Participants around various zone might keep various viewpoints around the social media marketing influencers.

CONCLUSION

The objective of this particular study has been to look for the partnership among appeal, content material, status, dependability (of social networking influencers), and buy purpose

associated with youngsters within Punjab, Pakistan. The outcomes exposed the presence of good connection between impartial factors as well as the reliant parameters. The particular predictors of the research specifically articles, status, plus reliability, impact the particular buy purpose associated with adults within Punjab, Pakistan. Nevertheless , appeal a new nonsignificant partnership, because of which usually it had been declined. It really is wished this examine will certainly lead scholastically in order to experts plus virtually in order to companies, influencers, in addition to entrepreneurs to get higher understanding associated with social internet marketing and even changer advertising actions, plus their own effect upon obtain objective from the customers. It is important to employ the majority of fitted social media marketing influencers to get efficient changer marketing and advertising to create brand name consciousness plus worth.

REFERENCES

- R. Abreu, *Social Media Micro-Influencer Marketing and purchasing intention of Millenials: the role of Perceived Authenticity and Trust. Dissertation submitted in partial fulfilment of the requirements for the degree of MBA Marketing at Dublin Business School* (Dublin Business School, Dublin, 2019).
- N. Arora, S. Prashar, C. Parsad, and S. V. Tata, 2019.
- P. C. Bauer, 2017.
- B. D. Belleau, T. A. Summers, Y. Xu, and R. Pinel, *Clothing and Textiles Research Journal* 25, 244–257 (2007).
- W. Burns, 2019.
- K. Byrum, *Research Journal of the Institute for Public Relations* 25–25 (2017).
- J. H. Callaghan, M. Parkash, and R. Singhal, 2008.
- C. Chatzigeorgiou, *Journal of Tourism, Heritage & Services Marketing* 3, 25–25 (2017).
- Z. O. Chibab and B. Abderrezzak, 2016.
- E. Christou, 2015.
- T. Coltman, T. M. Devinney, D. F. Midgley, and S. Venaik, *Journal of Business Research* 1250–1262 (2008).
- M. Dachyar and L. Banjarnahor, 2017.

- B. Z. Erdogan, 1999.
- C. Feltman, *The Thin Book of Trust: An Essential for Building Trust at Work. The Thin Book* (Thin Book Publishing Co, Oregon, 2009).
- M. Fishbein and I. Ajzen, *Belief, Attitude, Intention and Behavior: An introduction to theory and research* (Addison-Wiley Publishing, Massachusetts, 1975).
- K. Freberg, K. Graham, K. Mcgaughey, and L. A. Freberg, 2010.
- S. Fred, 2015.
- I. Ghadi, N. H. Alwi, K. Bakar, A. Talib, and O, 2012.
- Globenewswire, 2020.
- M. Glucksman, 2017.
- R. Goyal, 2014.
- M. Greenwald, 2019.
- A. Guttmann, 2019.
- J. F. Hair, M. Sarstedt, C. M. Ringle, and S. P. Gudergan, *Advanced issues in partial least squares structural equation modeling (PLS-SEM)* (Sage Publications, Thousand Oaks, CA, 2017).
- B. Halligan and D. Shah, *Inbound Marketing* (John Wiley & Sons, Inc, Hoboken, New Jersey, 2010).
- A. Handley and C. C. Chapman, *Content Rules* (John Wiley & Sons, Hoboken, New Jersey, 2011).
- MM Kamruzzaman, Bingxin Yan, Md Nazirul Islam Sarker, Omar Alruwaili, Min Wu, Ibrahim Alrashdi. (2022). Blockchain and Fog Computing in IoT-Driven Healthcare Services for Smart Cities. *Journal of Healthcare Engineering*, Volume 2022, <https://doi.org/10.1155/2022/9957888>
- A. Hearn and S. Schoenhoff, "From celebrity to influencer: tracing the diffusion of celebrity value across the data stream," in *A companion to celebrity*, edited by P. D. Marshall and S. Redmond (John Wiley & Sons, 2016), pp. 194–212.
- J. Henseler, C. M. Ringle, and R. Sinkovics, 2009.
- C. Hightower and K. Scott, *Science and Technology Librarianship* 69–69 (2012).

- H. . Hikmawati, The, Of, Of, V. A. A. C. Endorser, O. Consumer, Intention, Manajemen, and Bisnis, 2019.
- G. Holliman and J. Rowley, 2014.
- A. M. Hubley, S. M. Zhu, A. Sasaki, and A. M. Gadermann, Validity and Validation in Social, Behavioral, and Health Sciences 1–1 (2014).
- Y. Shi, S. Wang, S. Zhou and M. M. Kamruzzaman. (2020). Study on Modeling Method of Forest Tree Image Recognition Based on CCD and Theodolite. *IEEE Access*, vol. 8, pp. 159067-159076, 2020, doi: 10.1109/ACCESS.2020.3018180
- K. Hutter, J. Hautz, S. Dennhardt, and J. Füller, *Journal of Product & Brand Management* 342–351 (2013).
- Izea, 2020.
- S. N. Jaafar, P. E. Lalp, and M. M. Naba, *Asian Journal of Business and Management Sciences* 24–24 (2016).
- C. B. Jarvis, S. B. Mackenzie, and P. M. Podsakoff, *Journal of Consumer Research* 18–18 (2003).
- S. L. Javernpaa, N. Tractinsky, and M. Vitale, 2000.
- W. B. Joseph, *Journal of Advertising* 11, 15–24 (1982).
- H. J. Juhl, K. Kristensen, and P. Østergaard, *Journal of Retailing and Consumer Services* 23–23 (2002).
- N. Y. Jung and Y. Seock, 2016.
- S. Kapitan and D. H. Silvera, *Online] Marketing Letters* 27, 26–26 (2016).
- K. Karp, 2016.
- J. H. Kietzmann, K. Hermkens, I. P. Mccarthy, and B. S. Silvestre, 2011.
- J. D. Lewis and A. Weigert, *Social Forces* 63, 967–985 (1985).
- S. Lien, 2018.
- X. J. Lim, A. R. M. Radzol, J. Cheah, and M. W. Wong, *Asian Journal of Business Research* 22–22 (2017).
- N. Lisichkova and Z. Othman, *The impact of influencers on online purchase intent. A Thesis submitted*

in partial fulfilment of the requirements of Malardalen University for the Degree of Masters in Business

(Vasteras, 2017).

Guobin Chen, Zhiyong Jiang, M.M. Kamruzzaman. (2020). Radar remote sensing image retrieval algorithm based on improved Sobel operator, *Journal of Visual Communication and Image Representation*, Volume 71, 2020, 102720, ISSN 1047-3203
<https://doi.org/10.1016/j.jvcir.2019.102720>

B. F. Liu, Y. Jin, R. Briones, and B. Kuch, *Journal of Public Relations Research* 23–23 (2012).

L. Liu, Q. Li, Y. Xu, and Y. Zhang, “FIRM CELEBRITY, REPUTATION AND PERFORMANCE: A SOCIAL MEDIA PERSPECTIVE,” in *PACIS 2014 Proceedings Paper 205. AIS Electronic Library* (AIS Electronic Library, 2014).

S. Liu, C. Jiang, Z. Lin, Y. Ding, R. Duan, and Z. Xu, 2015.

C. Lou and S. Yuan, *Journal of Interactive Advertising* 10–10 (2019).

T. J. Madden, P. S. Ellen, and I. Ajzen, 1992.

R. C. Mayer, J. H. Davis, and F. D. Schoorman, 1995.

F. Meskaran, Z. Ismail, and B. Shanmugam, *Australian Journal of Basic and Applied Sciences* 7, 307–315 (2013).

C. McIntosh, *Cambridge Advanced Learner’s Dictionary* (Cambridge University Press, Cambridge, 2013).

D. Mirabi, H. Akbariyeh, and H. Tahmasebifard, *Journal of Multidisciplinary Engineering Science and Technology* 2, 267–273 (2015).

S. W. H. Naqvi, *Journal of Marketing and Consumer Research* 22–22 (2015).

L. Odden, 2013.

R. Ohanian, *Journal of advertising* 19, 39–52 (1990).

M. Padilla and J. Divers, *Educational and Psychological Measurement* 76, 436–453 (2016).

Pakistan, Bureau, and Statistics, 2019.

- Pakistan, Bureau, and Statistics, 2019.
- D. Patel, 2016.
- C. Pornpitakpan, *Journal of International Consumer Marketing* 16, 55–74 (2004).
- M. W. Ragas and R. Culp, *Business Essentials for Strategic Communicators: Creating Shared Value for the Organization and its Stakeholders* (Palgrave Macmillan, New York, 2014).
- S. Rahi, M. Ghani, and F. J. Muhamad, *Journal of Socialomics* 6, 191–197 (2017).
- M. Rebelo, 2017.
- V. P. Rindova, I. O. Williamson, A. P. Petkova, and J. M. Sever, 2005.
- A. H. B. Rosdi, A. R. Ridzuan, and S. H. A. Aziz, DRUGS MISUSE AMONG CHILDREN: MEASURING THE LEVEL OF PARENTS' AWARENESS ON THEIR CHILDREN'S BEHAVIOURAL CHANGE. E-*Journal of Media & Society* 2 (2019).
- Karimov Sirajaddin Allahverdi oglu (2019), Criminal Concept Against Military Service, *Science, Education and Innovations in the context of modern problems*. 2 (2):11-19.
- A. Safari, *Consumer Foreign Online Purchasing: Uncertainty in the Consumer-Retailer Relationship*. Dissertation presented at Uppsala University for the degree of Doctor of Philosophy (Uppsala, 2014).
- M. N. K. Saunders, P. Lewis, and A. Thornhill, *Research Methods for Business Students* (Pearson Education Limited, Harlow, 2019).
- C. Schlecht, 2003.
- T. V. Shau, *International Journal of Academic Research in Business and Social Sciences* 221–231 (2017).
- K. Sokolova and H. Kefi, *Journal of Retailing and Consumer Services* 11–11 (2019).
- B. Sridharan, H. Deng, J. Kirk, and B. Corbitt, "Structural equation modeling for evaluating the user perceptions of E-learning effectiveness in higher education," in *18th European Conference on Information Systems, ECIS 2010 in* (2010), pp. 7–09.
- Statcounter, 2019.

- A. T. Stephen, 2015.
- S. Streukens and S. Leroi-Werelds, *European Management Journal* 618–632 (2016).
- M. Talaverna, 2015.
- I. M. Tariq, M. R. Nawaz, M. M. Nawaz, and H. A. Butt, *Journal of Basic and Applied Scientific Research* 203, 24–24 (2013).
- D. L. R. V. D. Waldt, M. V. Loggarenberg, and L. Wehmeyer, 2009.
- K. Vatcheva, M. Lee, J. B. McCormick, and M. Rahbar, 2016.
- S. Vinerean, 2017.
- S. W. Wang, G. H. Kao, and W. Ngamsiriudom, *Journal of Air Transport Management* 25–25 (2017).
- S. W. Wang and A. C. Scheinbaum, *Journal of Advertising Research* 25–25 (2017).
- T. Ward, 2017.
- K. K. Wong, 2016.
- P. C. S. Wu, G. Y. Yeh, and C. R. Hsiao, *Australasian Marketing Journal* 30–39 (2011) Bharat S. Rawal, Poongodi M., Gunasekaran Manogaran, and Mounir Hamdi. 2021. Multi-Tier Stack of Block Chain with Proxy Re-Encryption Method Scheme on the Internet of Things Platform. *ACM Trans. Internet Technol.* 22, 2, Article 41 (May 2022), 20 pages. <https://doi.org/10.1145/3421508>
- Poongodi, M., Hamdi, M., & Wang, H. (2022). Image and audio caps: automated captioning of background sounds and images using deep learning. *Multimedia Systems*, 1-9. <https://doi.org/10.1007/s00530-022-00902-0>
- Ramesh, T. R., Vijayaragavan, M., Poongodi, M., Hamdi, M., Wang, H., & Bourouis, S. (2022). Peer-to-peer trust management in intelligent transportation system: An Aumann's agreement theorem based approach. *ICT Express*. <https://doi.org/10.1016/j.icte.2022.02.004>
- Poongodi, M., Nguyen, T. N., Hamdi, M., & Cengiz, K. (2021). A Measurement Approach Using Smart-IoT Based Architecture for Detecting the COVID-19. *Neural Processing Letters*, 1-15. <https://doi.org/10.1007/s11063-021-10602-x>
- Uma Shankar Yadav, Nasir Mammadov, & Ravindra Tripathi. (2022). Small Business (Handicraft Sector) of Azerbaijan and impact of Pandemic -19 on Traditional craft: Strate-

- gies for development of Handicraft Sector in Azerbaijan. *Bank and Policy*, 2(2), 111–145. <https://doi.org/10.5281/zenodo.6461554>
- A A, M P, Hamdi M, Bourouis S, Rastislav K and Mohmed F (2022) Evaluation of Neuro Images for the Diagnosis of Alzheimer’s Disease Using Deep Learning Neural Network. *Front. Public Health* 10:834032. doi: 10.3389/fpubh.2022.834032
- Poongodi, M., Hamdi, M., Gao, J., & Rauf, H. T. (2021, December). A Novel Security Mechanism of 6G for IMD using Authentication and Key Agreement Scheme. In 2021 IEEE Globecom Workshops (GC Wkshps) (pp. 1-6). IEEE., Spain, DOI: 10.1109/GCWkshps52748.2021.9715537
- Muniyappan, A.; Sundarappan, B.; Manoharan, P.; Hamdi, M.; Raahemifar, K.; Bourouis, S.; Varadarajan, V. Stability and Numerical Solutions of Second Wave Mathematical Modeling on COVID-19 and Omicron Outbreak Strategy of Pandemic: Analytical and Error Analysis of Approximate Series Solutions by Using HPM. *Mathematics* 2022, 10, 343. <https://doi.org/10.3390/math10030343>
- Y. Shi, S. Wang, S. Zhou and M. M. Kamruzzaman. (2020). Study on Modeling Method of Forest Tree Image Recognition Based on CCD and Theodolite. *IEEE Access*, vol. 8, pp. 159067-159076, 2020, doi: 10.1109/ACCESS.2020.3018180
- Guobin Chen, Zhiyong Jiang, M.M. Kamruzzaman. (2020). Radar remote sensing image retrieval algorithm based on improved Sobel operator, *Journal of Visual Communication and Image Representation*, Volume 71, 2020, 102720, ISSN 1047-3203 <https://doi.org/10.1016/j.jvcir.2019.102720>
- Yuanjin Xu, Ming Wei, M.M. Kamruzzaman, Inter/intra-category discriminative features for aerial image classification: A quality-aware selection model, *Future Generation Computer Systems*, Volume 119, 2021, Pages 77-83, ISSN 0167-739X, <https://doi.org/10.1016/j.future.2020.11.015>.
- Xing Li, Junpei Zhong, M.M. Kamruzzaman, “Complicated robot activity recognition by quality-aware deep reinforcement learning”, *Future Generation Computer Systems*, Volume 117, 2021, Pages 480-485.
- Bin Yuan, M. M. Kamruzzaman, Shaonan Shan, "Application of Motion Sensor Based on Neural Network in Basketball Technology and Physical Fitness Evaluation System",

Wireless Communications and Mobile Computing, vol. 2021, Article ID 5562954, 11 pages, 2021. <https://doi.org/10.1155/2021/5562954>

Chi, Z., Jiang, Z., Kamruzzaman, M.M. et al. Adaptive momentum-based optimization to train deep neural network for simulating the static stability of the composite structure. Engineering with Computers (2021). <https://doi.org/10.1007/s00366-021-01335-5>