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Pathways Toward Job Creation: Empirical Evidence on the Role of Digital Entrepreneurship and Social Capital

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Abstract

Entrepreneurship has become a critical aspect of nations' socio-economic growth. Digital entrepreneurship is a new business model for pursuing opportunities via the use of digital technologies. The goal of this research is to look into the impact of digital entrepreneurship on employment creation, as well as the role of social capital as a moderator. This research is based on a survey technique, with 453 digital entrepreneurs in Pakistan filling out a well-structured questionnaire. We have checked the instrument reliability, validity, and data normality before employing inferential analysis. The hypotheses were tested using correlation and hierarchical regression analysis. The study's findings demonstrated a considerable positive relationship between digital entrepreneurship, job generation, and social capital. The empirical data showed that digital entrepreneurship has a substantial impact on job generation in the country. Results of moderation analysis revealed that social capital acts as a moderator in the relationship between digital entrepreneurship and job creation. The study concluded that the enhancement of digital entrepreneurial activities is more likely to maximize job creation. Finally, the findings demonstrated that social capital had an enhancing effect as a moderator, as its inclusion boosted the impact of digital entrepreneurship on employment creation.

Keywords: *Digital Entrepreneurship, Job Creation, Social Capital JEL Code: M13, J23*

1 Introduction

The growth of information and communication technology has ushered in the digital era (ICTs) The technology approach broadened the scope of both domestic and international companies. According to Block, Brohman, and Steininger's study, the application of ICTs in organizations resulted in a significant modification of traditional business processes and a shift toward current entrepreneurship (digital entrepreneurship) (2020). Digital entrepreneurs undertake business in a new way as compared to conventional entrepreneurs and play a tremendous role in world economic development. In line with digital entrepreneurship, Google, Apple, and Facebook, etc. not only made drastic changes in conventional businesses but also changed the way of communication in daily social lives(Richter, Kraus and Bouncken, 2015; Panetta, 2017, Duan, Kotey& Sandhu, 2021). Digital entrepreneurship is conceptually reported as an opportunity for new business creation caused by the use of ICTs, social computing, mobile technologies, and digital platforms (O'Reilly, 2007; Davidson &Vaast, 2010;

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Onetti, Zucchella, Jones, McDougall-Covin, 2012; Oestreicher-Singer & Zalmanson, 2013 & Cooper, 2019). Digital entrepreneurship is a novel concept that is vigorously studied in developed countries (Anckar, 2016). Digital entrepreneurship monitor (2014) reported five main pillars of digital entrepreneurship including (digital knowledge base and ICT market, digital business environment, access to finance, digital skills, and e-leadership and entrepreneurial culture).

The current study used the Actor-network theory of Latour (2005) that stated the collaboration of human and material actors to enhance the overall performance. This study made a theoretical contribution by checking the influence of digital entrepreneurship on job creation by using social capital as a moderator because existing literature is quite on the association among these variables. Furthermore, we explored five sub-dimensions of digital entrepreneurship including the Digital knowledge base & ICT market, Digital business environment, Access to finance, Digital skills & E-leadership, and Entrepreneurial culture. In addition, we made a methodological contribution by developing the scale of digital entrepreneurship (Enz, Hinkin& Tracey, 1997) and used Hayes process macro for moderation analysis. As for as, this study is conducted in Pakistani perspective because in developing countries the concept of digital entrepreneurship is still passing through the crescent age and is not reached its yielding stage. Similarly, the findings of this study are beneficial for multi-groups of society, for instance, it inculcates the practicing entrepreneurs toward adopting the digital technologies for recognizing and catching the new opportunities. Furthermore, the study grabs the attention of policymakers to initiate the projects, that assist and encourage the youth to be engaged in digital entrepreneurial undertakings. Concurrently, social capital plays an active role in intensifying the role of digital entrepreneurship in job creation that leads toward economic prosperity.

2 Literature Review

T With the emergence of ICTs, complex technological and structural communication fabric emerge which summons all the resources in one place and enhances the access to the global market in continuous dramatic ways. Mole & Mole (2010) noted that the advances of the internet in the 21st century is an opportunity creator, which in many ways, directly and indirectly, alters the market structures for entrepreneurs whether or not they use it. The late 1990's decade witnessed the internet revolution along with the influx of entrepreneurs, which induce structural and legislative reforms for the internet industry under international law.

2.1 Digital Entrepreneurship

The scholars reported not to merge the terms internet entrepreneurship and digital entrepreneurship (McKelvey, 2001 & Abubakar, Faik, & Mkansi, 2021). Because the internet entrepreneurs and innovators develop business models based on the internet i.e., e-business and e-commerce and they exclude all those businesses which use digital technologies other than the internet like cellular technology as a trading platform and mobile commerce. According to Hafzieh, Akhavan, and Eshraghian (2011), there are three main differences in digital and conventional entrepreneurship, a) There is a big

difference in organizational structure, the art of working, and business prototypes. b) The marketing of services by digital entrepreneurs is entirely different from traditional entrepreneurship. c) Mostly the place of work in digital entrepreneurship is cybernetic, so employees don't need to be positioned physically (Waker 2006; Davidson &Vaast, 2010; Nambisan, 2017; Li et al. 2021, Zhang et al. 2021; Gong et al. 2021).

Moreover, Davidson and Vaast (2010) argued that entrepreneurship in digital economies having the characteristics of three different but interrelated types of entrepreneurship that generate opportunities: a) Business entrepreneurship, b) Institutional entrepreneurship and c) Knowledge entrepreneurship. They also mentioned that digital entrepreneurship is based on the interrelationship among technology, organization, and work meaning that it is socio-material. There are many E-commerce enterprises like Amazon.com, E-bay.com, etc. are the business entrepreneurs in digital economies meaning that they have created digital ventures and earning profit from them. The use of intellectual capital by the people to generate wealth for their personal needs as well as for the community is known as knowledge entrepreneurs. Arianna Huffington is the best example of a knowledge entrepreneur. The creation of new institutions or the development of existing ones is known as institutional entrepreneurship. Such type institutions like Alibaba or Rozee.com, harvest laws for these new types of organizations and entrepreneurs and also launch contemporary standards, technologies, and digital innovation (Von, Recker, Selander, Jarvenpaa, Hukal, Yoo, & Wurm, 2021; Davidson & Vaast, 2010). According to Hair et al. (2012) when entrepreneurial ventures work through digital technologies are known as digital entrepreneurship. Digital entrepreneurship having distinguished business models as compared to traditional entrepreneurship because they adopt digital platforms to hound their products, distribution, and marketing processes. Rosenbloom et al. (1993) and Muhibullah et al. (2021) reported the gigantic spectrum of digital entrepreneurship that all those large established enterprises that evolve software, hardware, and networking technologies to small level start-ups using ICTs to run businesses.

2.2 Job Creation

The dilemma of job creation is at a crucial stage in developing economies because of severe poverty all the dwellers are to be employed to ensure survival (ILO, 2011). This problem turns into a hazard for society and the economy of many developing countries. This unemployment leads to uncertainty in labor markets, reduction in tax collection, and expanded well-being costs. Unemployment is not only a worry for unemployed dwellers but also an issue for society and families. Most people expected to obtain a job after completion of education. If the occupant failed in finding jobs, they are demoralized that ultimately depreciates human capital, and resultantly causes social segregation (Gilal et al., 2019; Clark & Summers, 1982). Nattras (2002) reported that crime and violence are also the outcomes of unemployment that may totally destroy society and ultimately the economy. International Labor Organization in 1983 argued the dweller is said to be jobless if, a) he or she is not at work, b) presently accessible

for the job, c) looking for work. This argument is now used in one or form by developed and developing countries.

So, from the above discussion, it is concluded that unemployment is evil for individuals, families, societies, and economies. Hence, it is crucial for governments, non-government agencies, industrialists, and entrepreneurs to help dwellers in creating opportunities that ultimately lead towards job creation (McMahon et al. 2021; Zhang et al. 2021).

2.3 Social Capital

The pivotal works of Bourdieu (1986) and Coleman (1990) compel many scholars to confer social capital. Social capital is comprised of mutual anticipation of economic rewards among dwellers and clusters by collaborations. Due to this dynamic nature of social capital, it has been studied from various outlooks of the economic gig to the expansion of human capital, regional and national growth (Nahapiet and Ghoshal, 1998; Fraser, 2021). The broad spectrum of social capital comprehends intricate network acquaintances between economic and social perceptions (Robison et al., 2002 and Setini, Yasa, Supartha, Giantari, & Rajani, 2020; Hua, Dong, & Goodman, 2021). Social capital is the process of sharing customs, beliefs, or values and considerations to enable collaboration in groups (Organization for Economic Co-operation and Development, 2001). An individual social capital encompasses his or her associations with other dwellers by which one can engage in attaining his or her interest (Khan, Yang, & Waheed, 2019). The conception of social capital theory was based on dimensions of belief, policies, and customs that help in controlling social collaborations, actions, and traits of a network and its resources. Resultantly social capital phenomenon is researched in numerous fields including political science and economics (Chen et al. 2019; Collier, 1998; Woolcock, 1998; Leana & Van Buren, 1999; Putnam, 1993; Fukuyama, 2001; Zhang et al. 2018).

2.4 Digital Entrepreneurship and Job Creation

Anyadike, Emeh, and Ukah (2012) described the advent of creating jobs as one of the extremely crucial economic problems faced by today's world. Entrepreneurs are playing a tremendous role in job creation by examining society's immediate needs and try to provide solutions. The provision of solutions to prevailing social problems needs systematic processes in a way that creates opportunities for fetching human efforts known as job creation. Job creation widely depends on the nature of opportunities engendered by entrepreneurs because every job demands specific skills relevant to the job. Tijani-Alawiye (2004) and Mehmood et al. (2020) suggested that entrepreneurship is the continuous process of creating and providing the adept workforce for innovation and on other hand helps in the establishment of new firms (SME's), encouraging and polishing the capabilities of entrepreneurs not only to run the innovative business but also nurturing them for sustainability by encompassing the socio-economic activities and its growth (Pathan et al. 2017; Solangi et al. 2018). According to Anyadike, Emeh, and Ukah (2012), job creation is one of the numerous economic challenges faced by the world, Jobs creation is a qualified ability of an entrepreneur which s/he must be

developed strategically by hunting and identifying the opportunities and voids of an environment of any specific or world society and addressing those voids through innovative solutions. The European commission's project in the name of "Watify" was designed with the goal of creating 1.5 million jobs in the field of digital entrepreneurship in Europe. Whilst creating opportunities this new idea also deters the jobs in sectors of retail and manufacturing where there is a deficit in the growth of demand and automation. Studies by OECD and other schools of thought described that level of production increases due to the technological evolution which reduces the overall cost of production, ultimately lead to an increase in demand which again increased employment and recompenses the initial job destruction.

2.5 Digital Entrepreneurship and Social Capital

Cook (2011) argued that social capital whether conventional or modern helps in promoting economic growth. Kickul, Gundry, & Sampson (2007) reported that for women entrepreneurs' formal social capital brought many benefits like developing resources, financial benefits as compared to casual social capital. Previous work reported that proper training for producing quality products, proper entrepreneurial planning along formal social capital can help the women entrepreneurs for growth elevation. As per Inkpen and Tsang (2005) the entrepreneurs' individual and entrepreneur organizational social capital are collectively known as the generation of new resources within a prevailing social network. And long-term business consistency can be achieved by accumulative network associations along with inherited social resources. Moreover, organizational capacities are directly proportional to value creation via novelty in products through quality services (Prendes-Espinosa, Solano-Fernández, & García-Tudela, 2021; Möller & Rajala 2007).

2.6 Digital Entrepreneurship, Job Creation, and Social Capital

Social networks in any society are an important source to achieve the defined objectives of business at any level (start-up, venture development, etc.) to analyze business growth (Job Creation) (Lee, 2009). While Ramos-Rodríguez et al. (2010) said that entrepreneurial social relations are the key elements for the establishment of resources that lead the new opportunities in a way to create more jobs (Gong et al. 2019; 2020). Furthermore, this social relation is worthy when properly managed by focusing its underlying structure (network organization, ties) to attain the business goals (Muhibullah et al., 2021; Muafi, Syafri, Prabowo, & Nur, 2021; Khan, Yang, Khan, Kherbachi, & Huemann, 2020). For consistent business/entrepreneurial growth utilization of the social networks aids to develop quality resources and value-added strategies through their social network potential.

3 Problem Statement

The literature argued that digital entrepreneurship has a great potential in the modern world to enhance innovative entrepreneurial behavior leading to new ways of self-employment by the means of social capital (Gilal et al. 2019a 2019b; Block et al. 2018 & Anckar, 2016). In this modern age, despite the great development around the globe,

still there are many countries (developing and underdeveloped) facing the problem. The adoption of conventional approaches used in businesses ultimately lacks innovation and cannot handle the problem of unemployment. So, to solve the issue of inconsistent entrepreneur innovative behavior and unemployment in developing and underdeveloped countries, quick development and growth is the only chance by structuring digital entrepreneurship platforms. The current study aimed to explore an optimistic framework to study the issue of unemployment by connecting digital entrepreneurship platforms.

3.1 Research Objectives

The research objectives of the present study are:

1. To find out the association among Digital Entrepreneurship, Job Creation, and Social Capital.

2. To investigate the influence of Digital Entrepreneurship on Job Creation.

3. To identify the moderating role of Social Capital in the relationship between Digital Entrepreneurship and Job Creation

3.2 Research Hypotheses

H1:There is a positive significant relationship among the study variables.

H1a: There is a positive significant relationship between digital entrepreneurship and job creation.

H1b: There is a positive significant relationship between digital entrepreneurship and social capital.

H2:There is a significant effect of digital entrepreneurship on job creation.

H3:Social capital significantly moderates the relationship between digital entrepreneurship and job creation.

4 Research Methods

4.1 Data collection method

Primary data were collected from digital entrepreneurs of Pakistan by using a well-structured adapted and developed questionnaire.

4.2 Research population

We applied a quantitative survey approach in order to collect the data from the digital entrepreneurs of Pakistan. Concurrently 361200 digital entrepreneurs are operating their businesses in Pakistan Grabowski, Koleonidis, Arshad, Sohail& Ibrahim (2017). So, the population of the current study is 361200.

4.3 Sample size and Technique

We used a convenient sampling technique (non-probability sampling) for data collection as the population of the study is scattered across Pakistan., hence, the data were collected from "453" digital entrepreneurs.

4.4 Instrument design

We developed a scale for digital entrepreneurship while using the framework given by digital Entrepreneurship Monitor (DEM, 2014) as per Hinkin, Enz, and Tracey (1997) as followed by (Gilal, Zhang, & Gilal, 2018), and the scales for job creation and social capital are adapted from the studies of Uzochukwu and Chidiebere (2015) and Amir (2015) respectively. The total number of items are "16" for variable digital entrepreneurship, "4" items for variable job creation, and "6" items for variable social capital.

5 Data analysis

We tested the instrument validity (factor analysis) for extraction of items, factors, and their confirmation, reliability of the scale, to check the convergent and discriminant validity using measurement model. We used AMOS-SEM for confirmatory factor analysis and SPSS for the purpose of moderation analysis using Hayes process macro to check moderation effects i.e. enhancing effect, buffering effect, and antagonistic effect (Preacher and Hayes, 2007).

6 Results

5.1.1 Construct Cross Loadings

Table I Constructs Cross Loadings

	DE	JC	SC
DE1	**0.673**		
DE2	**0.699**		
DE3	**0.711**		
DE4	**0.753**		
DE5	**0.719**		
DE6	**0.649**		
DE7	**0.752**		
DE8	**0.764**		
DE9	**0.758**		
DE10	**0.751**		
DE11	**0.705**		
DE12	**0.721**		
DE13	**0.729**		
DE14	**0.74**		

DE15	**0.683**		
DE16	**0.711**		
JC1		**0.736**	
JC2		**0.789**	
JC3		**0.748**	
JC4		**0.729**	
SC1			**0.479**
SC2			**0.6**
SC3			**0.569**
SC4			**0.648**
SC5			**0.757**
SC6			**0.727**

This study analyzes item cross-loadings to examine that, items load on their corresponding constructs with higher factor loadings as compared to other constructs (Chin, 1998 & Yi and Davis, 2003). The aforementioned table revealed that all items load higher on their corresponding construct as compared to other constructs (See Table-I).

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6.1.1 Confirmatory Factor Analysis (Digital Entrepreneurship)

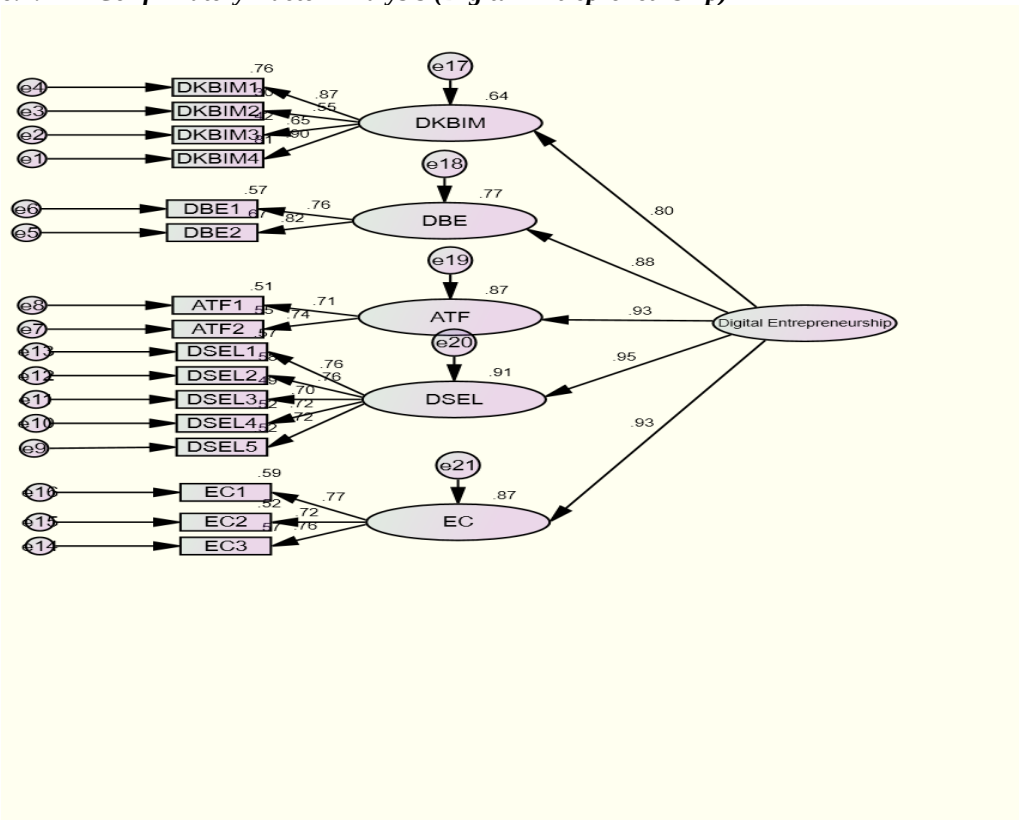

Figure: I Confirmatory factor analysis (Digital Entrepreneurship)

Confirmatory factor analysis was done for the purpose of scale validation. Here, we applied CFA on digital entrepreneurship for model fitness, which can be seen in figure I. We applied second-order confirmatory factor analysis because in first-order CFA digital entrepreneurship facets were highly correlated in such cases second-order CFA is the rationale choice. Measurement model elaborate model fitness an essential measure in CFA, verified using multiple fit indices like GFI, NFI, CFI, TLI, AGFI, and RMSEA (De Run, 2004; Maclnnis& Jaworski, 1989; Moore & Lutz, 2000; Muehling, et al., 1991). Results of final data for the variable digital entrepreneurship revealed that the values of fit indices are X2/df = 1.844 with $p < 0.01$ GFI = 0.949>.90, NFI = 0.948>.90, CFI = 0.975>.90, TLI = 0.971>.90, AGFI = 0.932>.90 and RMSEA 0.043<0.08 for the variable digital entrepreneurship. Hence, final data results also reported overall model fitness based on the aforementioned criteria

6.1.2 Confirmatory factor analysis (Job Creation)

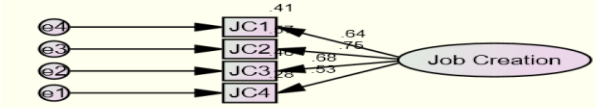

Figure: II Confirmatory factor analysis (Job Creation)

Measurement model elaborate model fitness an essential measure in CFA, verified using multiple fit indices like GFI, NFI, CFI, TLI, AGFI and RMSEA (De Run, 2004; Maclnnis& Jaworski, 1989; Moore & Lutz, 2000; Muehling, et al., 1991). Results for the variable job creation revealed that the values of fit indices are X2/df = 2.145 with p < 0.01 GFI = 0.995>.90, NFI = 0.989>.90, CFI = 0.994>.90, TLI = 0.982>.90, AGFI = 0.977>.90 and RMSEA 0.050<0.08 for the variable job creation. Hence, results reported overall model fitness based on aforementioned criteria.

6.1.3 Confirmatory factor analysis (Social Capital)

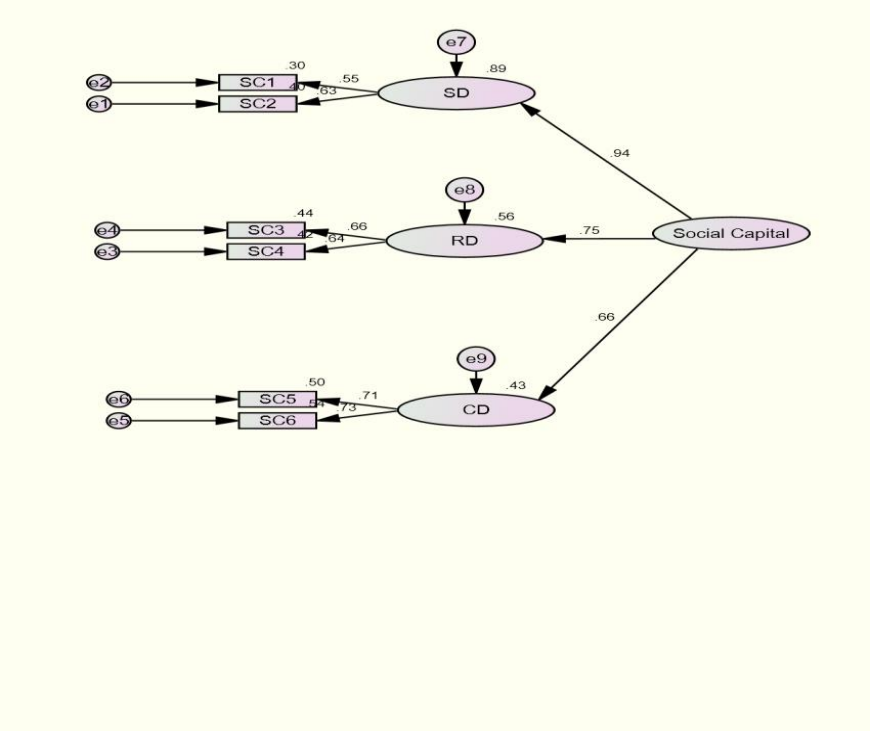

Figure: III Confirmatory factor analysis (Social Capital)

Measurement model elaborates the model fitness as an essential measure in CFA, verified using multiple fit indices like GFI, NFI, CFI, TLI, AGFI and RMSEA (De Run, 2004; Maclnnis& Jaworski, 1989; Moore & Lutz, 2000; Muehling, et al., 1991). Results for the variable job creation revealed that the values of fit indices are $X^2/df = 5.637$ with $p < 0.01$ GFI = 0.968>.90, NFI = 0.884, CFI = 0.90, TLI = 0.813, AGFI = 0.915>.90 and RMSEA 0.10=<0.10 (Henseler, Dijkstra, et al., 2014). for the variable social capital. Hence, results reported overall model fitness based on aforementioned criteria.

6.1.4 Convergent validity

Table II Convergent Validity

Construct	Items	Code	Loadings	Cronbach's Alpha	CR	AVE
Digital Entrepreneurship	Access to finance enhances the entrepreneur's profitability in Digital	DE1	0.673	0.938	0.945	0.519

	Entrepreneurship.					
	Digital entrepreneurs having access to finance other than bank loans.	DE2	0.699			
	The government is adopting structures to promote a digital business environment.	DE3	0.711			
	Enterprises using customer relationship management to analyze information about clients for marketing purposes.	DE4	0.753			
	Digital media create excitement in society.	DE5	0.719			
	Entrepreneur possesses awareness about information communication technologies (ICTs).	DE6	0.649			
	Entrepreneur holds an experience of using ICTs.	DE7	0.752			
	ICTs distribute the information quickly to improve organizational communication.	DE8	0.764			

	Digital entrepreneurship hires almost all employees with ICT skills.	DE9	0.758			
	Almost all Enterprises provide training to ICT/IT specialists to upgrade their ICT skills.	DE10	0.751			
	Digital entrepreneurs having the availability of individuals who obtained IT skills through formalized educational institutions (school, college, university, etc.)	DE11	0.705			
	E-Leaders give you the freedom to decide the way you do your job.	DE12	0.721			
	E-leadership enhances the commitment level of employees.	DE13	0.729			
	Favorable entrepreneurial culture is prevailing in society.	DE14	0.740			
	The government encourages Digital entrepreneurship in the country.	DE15	0.683			

	Positive entrepreneurial culture leads Digital entrepreneurship towards creativity.	DE16	0.711			
Social Capital	The establishment of stable partnership networks is encouraged by the entrepreneur.	SC1	0.479	0.716	0.800	0.406
	The acquisition of valuable information is facilitated by my working relationships.	SC2	0.600			
	Important information to my professional life is provided by my work contacts.	SC3	0.569			
	Personal relations within the company encourage a trustful work environment.	SC4	0.648			
	I consider my work environment to be encouraging.	SC5	0.757			
	The communication policy of the company promotes its organizational values in a way that can be	SC6	0.727			

	clearly understood by all.					
Job Creation	Digital Entrepreneurship create jobs thatbenefits to increase economic security of employees.	JC1	0.736	0.743	0.838	0.564
	Digital Entrepreneurship creates jobs that help employees to develop the skills necessary to launch a career path.	JC2	0.789			
	Digital Entrepreneurship creates jobs that help employees to enhancesCareer-building opportunities.	JC3	0.748			
	Digital Entrepreneurship creates jobs that provide sufficient funds to employees to manage financial emergencies.	JC4	0.729			

As per Hinkin, Tracey, and Enz (1997), for scale validation, it is important to run confirmatory factor analysis after exploratory factor analysis. The measurement model followed convergent and discriminant validity along with composite reliability of the study scale. We also calculated convergent validity based on factor loadings and average variance extracted. Pavlou and Fygenson (2006) reported the value of AVE>0.5 reveals convergent validity, Hair et al. (2007) argued the value of AVE>0.4 achieve convergent validity and (Gefen & Straub, 2005) reported that the values of factor

loadings greater than 0.6 also achieve convergent validity for items measuring their respective construct. Furthermore, the researcher calculated composite reliability to measure the construct reliability (Chin et al., 2003). The threshold for construct reliability is CR>0.5 (Hinton et al., 2004). Results identify that all the variables attain the convergent validity and construct reliability based on mentioned thresholds (See Table-II).

6.1.5 Discriminant validity

Table III Discriminant Validity

	DE	JC	SC
DE			
JC	0.237		
SC	0.243	0.072	

Here the study results verified discernment validity based on Hetro-trait Mono-trait (HTMT) to ensure dissimilarity of the constructs. The table indicate digital entrepreneurship (DE) with job creation (JC) having HTMT-score =0.237 <0.85, digital entrepreneurship (DE) with social capital (SC) having HTMT-score =0.243 <0.85, and finally social capital (SC) with job creation (JC) having HTMT-score =0.072 <0.85. all of the HTMT-scores are well below the range of 0.85 proposed by Kilne (2003) (See Table-III).

6.1.6 Correlation Analysis

Table IV Correlation Analysis

		JC	SC	DE
JC	Pearson Correlation	1	-.017	.198**
	Sig. (2-tailed)		.717	.000
	N	453	453	453
SC	Pearson Correlation	-.017	1	.203**
	Sig. (2-tailed)	.717		.000
	N	453	453	453
DE	Pearson Correlation	.198**	.203**	1
	Sig. (2-tailed)	.000	.000	
	N	453	453	453

Results elaborated that all the values of correlation are positive, and the probability values of the results are less than the threshold of 5%. Results explained that digital entrepreneurship has a positive relationship with job creation revealing that if the

government and private agencies provide proper digital skills through training, workshops, seminars, etc. to digital entrepreneurs of Pakistan and if these entrepreneurs work under the umbrella of appropriate E-leadership then they will not only be self-employed but will also create jobs in the country that will boost the economy in a very short run. In nutshell results elaborated that digital entrepreneurship is directly and significantly proportional to job creation (See Table-IV).

6.1.7 Regression Analysis

Table V Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.198[a]	.039	.037	.68887	18.398	.000[b]

a. Predictors: (Constant), DE

Simple Linear Regression results of model-II revealed that the value of R2 = 0.039 with $p<0.05$ and F = 18.398, meaning that there is 3.9% change occurred in job creation due to digital entrepreneurship and the overall model is significant as the probability statistics meet the threshold at 95% confidence interval (See Table-V).

6.1.8 Coefficients

Table VI Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.333	.109		30.633	.000
	DE	.143	.033	.198	4.289	.000

a. Dependent Variable: JC

Results of the model coefficient elaborated that the beta value of digital entrepreneurship = 0.143, meaning that with the one-unit change in digital entrepreneurship there is 0.194 unit change that occurs in job creation with t = 4.289 and $p<0.05$ (See Table-VI).

6.1.9 Multiple Hierarchical Regression

Table VII Multiple Hierarchical Regression

Variables	Coefficient (b)	SE (B)	R^2	R^2 Change	P(Model Summary)	T	P
Constant	3.7588	.0328	.0608	.0182	.0000	114.679	.0000
Social Capital	-.0608	.0544				-1.1181	.2641
Digital Entrepreneurship	.1948	.0368				5.2965	.0000
DE*Social Capital (Int)	.1678	.0569				2.9493	.0034

Results of multiple hierarchical regression elaborated that R2 = .060 with $p<0.05$, meaning that 6% variation in job creation due to digital entrepreneurship. The overall model is statistically significant based on probability statistics at a 95% confidence interval. We used social capital as a moderator on the relationship between digital entrepreneurship and job creation. Results of moderation analysis show the value of R2 change = 0.0182 with $p<0.05$ by following Jaccard et al (1989), who reported R2 change as a base to evaluate moderation effect. Model coefficient explained the beta score of digital entrepreneurship (independent variable) is 0.1948 with $p<0.05$, a beta score of social capital (moderator) is -0.0608 with $p>0.05$ and the beta value of interaction is 0.1678 with $p<0.05$. Results explained that with the one-unit change in digital entrepreneurship there will be 0.1948-unit variation occurred in job creation, a beta score of social capital revealed that with the one-unit change in moderator there will be -0.0608-unit variation in job creation and at last the beta value of interaction term (digital entrepreneurship*social capital) explained that with the one-unit change in interaction term there is 0.1678-unit variation in the dependent variable. Here the study results also confirm moderation criteria given by Aiken and West (1991), They explained significant interaction as a compulsory part for a moderator to do act as moderator. Results also revealed the nature of the effect that when moderator brought to the model carries enhancing effect i.e., the inclusion of social capital as a moderator increases the effect of digital entrepreneurship on job creation (See Table-VII).

6.1.10 Interaction Plot

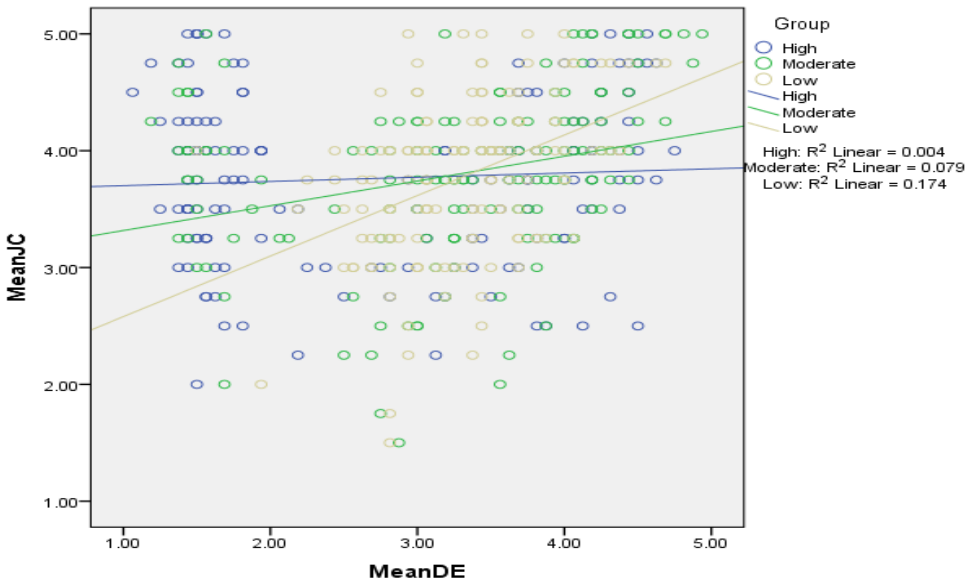

Figure V Interaction Plot

Aicken and West (1991) reported that for analyzing the conditional effects of moderator on dependent variable researcher should have to group the moderator into three categories (High social capital, Moderate social capital, and Low social capital). Conditional effects of groups revealed that high social capital is represented by the blue line, moderate is the green line and low social capital is represented by the yellow line. The value of R2 for high social capital is 0.004 and its under root revealed the correlation is found at 0.063 with digital entrepreneurship and job creation. The R2 value for moderate social capital is 0.079 with a correlation of 0.281 with digital entrepreneurship and job creation and in the end, the value of low social capital is 0.174 and it's under root elaborated correlation is 0.4171 with digital entrepreneurship and job creation. Results also elaborated the conditional effect of digital entrepreneurship and social capital on job creation. Investigation of interaction plot revealed that as digital entrepreneurship and social capital are high the job creation is also elevated, and this would be the best scenario for entrepreneurs to be adopted. The plot also elaborated that when digital entrepreneurship is low job creation is almost the same for entrepreneurs with low, moderate, or high social capital, See figure-V.

7 Discussion

Digital entrepreneurship idea emerged in the 21st century, scholars like (Yaghoubi, Salehi, Eftekharian&Samipourgiri, 2012; Hull, Hung & Hair, 2006; Digital Entrepreneurship Monitor, 2014; Davidson &Vaast, 2010; Growth European Union, 2016; Leong, Pan & Liu, 2016; Hamid & Khalid, 2016 &Anckar, 2016) drove numerous dimensions of digital entrepreneurship. We aimed, to find out the moderating

role of social capital in the association between digital entrepreneurship and job creation. Results of the research elaborated that digital entrepreneurship reported a significant relationship with job creation and social capital. Meaning that with the increase in digital entrepreneurial activities more jobs will be created and it will also help in boosting the social capital. Based on the findings of the study, hypothesis "1" along with its sub-hypotheses (H1a and H1b) is accepted. Results are in line with the findings of existing researches of Anckar, (2016) and Prendes-Espinosa, Solano-Fernández, & García-Tudela, (2021) the study argued that digital entrepreneurship plays a significant role in creating more jobs with the inclusion of social capital. Results also revealed that digital entrepreneurship having a significant influence on job creation, meaning that with the increase in digital entrepreneurship, more jobs can be created in an economy that will lead the economic prosperity. Based on findings hypothesis "2" is accepted. Results are supported by the scholarly work of (Hamid & Khalid 2016; Anckar, 2016). Research revealed that social capital significantly moderates the relationship between digital entrepreneurship and job creation based on findings it is reported that the inclusion of social capital enhanced the effect of digital entrepreneurship on job creation. Results of the study accepted hypothesis "3". Results are supported by the findings of (Davidson &Vaast, 2010 and Zhao & Collier, 2016).

8 Conclusion

Concurrently, the world is considered as a global village, still, there are evils of unemployment at peak in most of the countries due to many reasons. Economists are consistently working to find out the solution to reduce unemployment. In the recent past, entrepreneurs' fetch the attention of the world by introducing novel entrepreneurship i.e., digital entrepreneurship in order to reduce the tribulations of unemployment. The findings of the study revealed that digital entrepreneurship and social capital are important spectacles to reduce the level of unemployment around the globe without the barriers of caste, race, culture, distance, etc. The prime of the study was to evaluate the relationship between digital entrepreneurship and job creation, with the moderating role of social capital in Pakistan. The results of the study concluded that digital entrepreneurship has a positive relationship with job creation, meaning that with the increase in digital entrepreneurial activities more jobs will be created, and results also concluded that the inclusion of social capital being a moderator, enhances this relationship. Hence, the findings of the study inculcate the government authorities, practitioners, academicians, entrepreneurs, and students to focus on establishing more and more digital entrepreneurial initiatives with the intentions to create jobs as well as, the entrepreneurs may focus on enhancing their social capital that boosts employment level.

9 Implications for Entrepreneurs

The theoretical side of the study contributed to the knowledge of career digitalization in the era of sustainable development by new employment channels. Firstly, the study at hand contributed to the field of employment by highlighting critical factors in the domain of e-commerce. Secondly, this study accumulated digital entrepreneurship

means that support job creation. Thirdly, this study model offers an extended framework to investigate the role of social capital in connection to job creation and digital entrepreneurship to map an optimistic path in the field of management science. Practically, the study findings of the study frame a roadmap for creating more and more innovative jobs than traditional sectors of the economy. Similarly, digital means design employment platforms for job seekers in a cheaper and flexible way in the Pakistani market. Furthermore, the traditional, as well as digital entrepreneurs, may use their social capital at par to develop their businesses which in turn increases more opportunities and firms' reputation in society. The findings indicated that social movement is an ideal and convenient path that entrepreneurs transform into optimistic products by capturing social knowledge. Finally, at the broader spectrum, the findings of the current work showcase a network of employment trees that will be the panacea for the decision machinery of a country like Pakistan.

10 Limitations and future direction

The cross-sectional nature of data is the part of this study that can be strengthened further by future work having longitudinal data of digital entrepreneurship and job creation area. The study at hand is based upon a limited sample size of Pakistani digital entrepreneurs that can hinder the generalizability of the findings of the study. Since, the sample size can be increased in future studies, so as to cover the limitations of this study in respect of the small size of the sample. The current study is only confined to digital entrepreneurs, future work may include comparative analysis of conventional and digital entrepreneurship in the context of job creation.

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