Building Job Creation through Digital Entrepreneurship: Is Social Capital a missing link?

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Abstract

Purpose -This study aims to examined the mediating role of social capital between digital entrepreneurship and job creation based on the Actor Network Theory and Social Capital Theory.

Design/Methodology/approach - Data were collected from 453 digital entrepreneurs using convenient sampling technique in Pakistan. The hypotheses were tested through Structural Equation Modelling (SEM) by using Smart PLS.

Findings - Results of the study indicate that social capital does not mediate the relationship between digital entrepreneurship and job creation. The findings reveled that digital entrepreneurship played an important role in the creation of job opportunity based on the concept of actor network and social capital theories that are pivotal for the economic growth, while social capital does not play its role in the relationship between digital entrepreneurship and job creation.

Practical implications - The study suggests that the digital entrepreneurs of the country to create more employment opportunities by proper utilization of the digital knowledge based and E-leadership. Furthermore, the study suggests that entrepreneur should devote considerable attention to properly lunch this type of business models in emerging economy.

Originality/Value – Extensive review of available literature indicates that this is the first paper to assess the impact of digital entrepreneurship on job creation with a mediating role of social capital. This study contributes to the existing literature through empirical evidence.

Keywords: Digital entrepreneurship, job creation, social capital.

Research type: Empirical Research

Introduction:

The modern digital era has drastically changed the world business environment and created numerous opportunities for investors and job seekers. Digital entrepreneurship is one of the widely perceived technological revolutions around the world that has created opportunities for both parties. Exactly, digital entrepreneurship is the technological assets based on ICTs and internet that transform products, services and businesses into digital landscape (Le Dinh et al., 2018). Entrepreneurs make aware themselves of these opportunities for continuous and consistent innovation (Hull et al., 2007), as transformation from conventional to digital businesses create many new ways that are important to drive novel innovation which lead towards value creation. However, Lusch & Nambisan (2015) argued that digital entrepreneurship is not just the adoption and usage of ICTs, but it explores the entrepreneurial activities and its infrastructure through digital technologies to support all the entrepreneurial interaction amongst diverse stakeholders. Digital entrepreneurship is envisaged as a critical pillar for economic growth, job creation and innovation in developed economies including the Member States of the European Union (Zhao & Collier, 2016; Kraus et al., 2019). These states witnessed number of factors emerged by the use of digital entrepreneurship that help the economic growth. Zhao and Collier (2016) argue that digital entrepreneurship is distinctive area for academicians because of its importance in society and economy and also it was identified this topic as worthy of specific analysis by European Commission in 2013. As per Zhao and Collier (2016), digital entrepreneurship helps in innovation, job creation and economic growth. Thus, provides an opportunity for the researchers to explore this concept in various dimensions, specifically in different aspects of entrepreneurship and digital economy. Therefore, keeping these factors in mind digital entrepreneurship is recognized as a unique and emerging area of research.

There are number of ways by which current rate of unemployment can be reduced. Inhabitants of Pakistan (entrepreneurs) can help the nation by continuous creative destruction (hunting opportunities) by the novel use of digital technologies that ultimately leads towards innovative ways of doing new businesses which help towards reduction of unemployment in the country. Hence, it is concluded from the above discussion that digital entrepreneurship is an important phenomenon that needs to be studied in the context of creating jobs in the economy and how social capital of digital entrepreneurs plays a role in reducing the unemployment level in an economy.

The current research fills the gap and scrutinizes the influence of digital entrepreneurship on job creation with a mediating role of social capital. Hence, the current study answers the questions (a) do digital entrepreneurship influence job creation? (b) does social capital influence job creation? and (c) does the nexus between digital entrepreneurship and job creation is mediated by the social capital?

This research has three major objectives. First, several studies have assessed the nexus between digital entrepreneurship and job creation (Masenya, 2021) as well as between social capital and job creation (Fu, Sawang & Sun, 2019). However, what is not yet known is the indirect influence of digital entrepreneurship on job creation through the enabling role of social capital. So, the aim of the current study is to elaborate the mediating role of social capital in relationship of digital entrepreneurship with job creation in Pakistan. The fulfillment of this objective can help in improving the living standard of people and economic growth of Pakistan through digital entrepreneurship and social capital.

This study contributes to the existing literature in three ways. First this study tests the role of digital entrepreneurship in job creation. Secondly this study asses the mediating role of social capital between digital entrepreneurship and job creation nexus. Third this research tests the Actor Network Theory and Social Capital Theory. These theories are rarely debated in terms of digital entrepreneurship and social capital in emerging market Pakistan.

Literature Review

Digital Entrepreneurship and Job Creation

Murphy et al. (2006) reported that from last 200-300 years entrepreneurship is considered as an important pillar to increase the income per capita of Western region. Hendrickson et al.

(2016) stated that even in great depression of 1930 and 2008, entrepreneurship created opportunities that helped in employment those days as well. Entrepreneurship is weighed as momentous factor for societal and economic development to resolve problems of unemployment, through provision of spacious range of products for customers (Zahra et al., 1999).

European Commission (2015) made protruding effort to define digital entrepreneurship:

"Digital entrepreneurship embraces all new ventures and the transformation of existing businesses that drive economic and/or social value by creating and using novel digital technologies. Digital enterprises are characterized by a high intensity of utilization of novel digital technologies (particularly social, big data, mobile and cloud solutions) to improve business operations, invent new business models, sharpen business intelligence, and engage with customers and stakeholders. They create the jobs and growth opportunities of the future".

According to Monitor European Commission (2016) the core themes of European Digital Entrepreneurship are: Digital knowledge base and ICT Market, Digital business environment, Access to finance, Entrepreneurial culture and Digital skills and e-leadership. 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 develop 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. For that very purpose of addressing the voids of a society, opens up new dimensions by entrepreneurs which requires skilled work force for the creation of innovative solutions, a principal source of job creation in entrepreneurship. Likewise, was the case defined above by Tijani-Alawiye (2004) which elaborates the same concept of job creation through entrepreneurial development.

Lack of job creation at par for young dwellers is the major issue in both developed and developing economies across the world. This dilemma is at crucial stage in developing economies because of more poverty demanding all dwellers to be employed to safeguard survival (ILO, 2011). According to World Bank report (2012) there are more than 200 million dwellers unemployed around the globe, so engendering increase in employment rate is important for economic development. The rising importance of creating more jobs indulge youth of numerous developing countries and this will ultimately bring 600 million more inhabitants to employment in coming fifteen years. The involvement of young entrepreneurs (digital entrepreneurs) literally help to solve the major economic problem of unemployment and moves the world economy towards prosperity.

H1: Digital Entrepreneurship has significant positive influence on Job Creation.

Social Capital and Job Creation

Social networks in any society are important source to achieve the defined objectives of business at any level (start-up, venture development etc.) to analyze business growth (Lee, 2009) that ultimately lead towards more jobs in an economy. While Ramos-Rodríguez et al. (2010) said that entrepreneurial social relations are the key elements for establishment of resources that lead the new opportunities. Furthermore, this social relation is worthy when properly managed by focusing its underlying structure (network organization, ties) to attain the business goals. For the consistent business/entrepreneurial growth utilization of the social networks aids to develop quality resources and value-added strategies through their social network potential.

Johannessen and Olsen (2009) expressed that organizational and social knowledge practices are the key aspects of firm's capabilities. The development of these organizational capacities depends on numerous factors: network quality, social knowledge, communication skills, commitment, and manageable structures of organization. So, it is concluded that social capital is also crucial for digital entrepreneurs just like conventional entrepreneurs. Hence, nascent entrepreneurs more specifically digital entrepreneurs are desperately in need of reliable social networks and strategies that completely transformed entrepreneurs into matured one, should be learn for procurement of knowledge and value creation.

H2: Social capital has significant positive influence on job creation.

Digital Entrepreneurship and Social Capital

The pivotal works of Bourdieu (1986) and Coleman (1988, 1990), compel many scholars to confer social capital. According to authors mentioned above social capital comprised of mutual anticipation of economic rewards among dwellers and clusters by collaborations. Due to this dynamic nature of social capital it is studies by various outlooks form economic gig to the expansion of human capital, regional and national growth (Nahapiet and Ghoshal, 1998). The broad spectrum of social capital comprehends intricate network acquaintances between economic and social perceptions (Robison et al., 2002). Social capital is the process of sharing customs, beliefs/values and considerations to enable collaboration in groups (Organization for Economic

Co-operation and Development, 2001). Cook (2011) argued that social capital whether conventional or modern helps in promoting economic growth. Kickul, Gundry, & Sampson (2007) reported that for women entrepreneur's formal social capital brought many benefits like: developing resources, financial benefits as compared to casual social capital. Researcher reported that proper training for producing quality products, proper entrepreneurial planning along with formal social capital can help the women entrepreneurs for growth elevation. Jayawarna, Jones, and Macpherson (2011) described performance of emerging entrepreneurs, they concluded that the role of social capital is tremendous in entrepreneurship. As per Inkpen and Tsang (2005) the entrepreneurs' individual and entrepreneur organizational social capital collectively known as 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 (Möller & Rajala 2007).

H3: Digital Entrepreneurship has significant positive influence on Social capital.

H4: Social capital significantly mediate the relationship between digital entrepreneurship and job creation.

Methods

Current study used quantitative survey approach for the purpose of data collection from the digital entrepreneurs of Pakistan. There are "361200" digital entrepreneurs operating in Pakistan Grabowski, Koleonidis, Arshad, Sohail & Ibrahim (2017). Researcher developed the scale for digital entrepreneurship using the framework given by digital Entrepreneurship Monitor (DEM, 2014) as per Hinkin, Enz and Tracey (1997), while scale for job creation and social capital is adapted from 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. Current study used convenient sampling technique for data collection as population of the study scattered across the Pakistan. Yamane (1967) formula is used for sample size selection. Data was collected from "453" respondents. Current study applied factor analysis for extraction of items and factors, reliability of scale, to check the convergent and discriminant validity using measurement model. Researcher used Smart Partial Least Square (PLS)

for the purpose of mediation analysis i.e. total effect, direct effect and indirect effect (Preacher and Hayes, 2007). Smart PLS as a statistical tool offers multiple options to investigate research variables with minimum error handling and suitability of theory prediction and without prior check of data normality (Chin, Marcolin and Newsted, 2003).

Measurement model

Table-I Constructs' cross-loadings

	DE	JC	SC
DE1	**0.673**	0.122	0.125
DE2	**0.699**	0.126	0.188
DE3	**0.711**	0.17	0.174
DE4	**0.753**	0.165	0.21
DE5	**0.719**	0.127	0.075
DE6	**0.649**	0.131	0.169
DE7	**0.752**	0.16	0.11
DE8	**0.764**	0.134	0.139
DE9	**0.758**	0.18	0.159
DE10	**0.751**	0.149	0.151
DE11	**0.705**	0.115	0.172
DE12	**0.721**	0.132	0.16
DE13	**0.729**	0.159	0.19
DE14	**0.74**	0.155	0.157
DE15	**0.683**	0.126	0.142
DE16	**0.711**	0.155	0.159
JC1	0.142	**0.736**	-0.01
JC2	0.161	**0.789**	0.01
JC3	0.136	**0.748**	-0.007
JC4	0.165	**0.729**	-0.035
SC1	0.064	0.001	**0.479**
SC2	0.124	-0.002	**0.6**
SC3	0.093	-0.046	**0.569**
SC4	0.15	0.03	**0.648**
SC5	0.199	0.009	**0.757**
SC6	0.157	-0.059	**0.727**

The 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). Aforementioned table revealed that all items loads higher on their corresponding construct as compared to other constructs (See Table-I).

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 Entrepreneurship.	DE1	0.673	0.938	0.945	0.519
	Digital entrepreneurs having access to finance other than bank loans.	DE2	0.699			
	Government is adopting structures to promote 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 experience of using ICTs.	DE7	0.752			
	ICTs distribute the information quickly to improve the organizational communication.	DE8	0.764			
	Digital entrepreneurship hires almost all the 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 freedom to decide the way you do your job.	DE12	0.721			
	E-leadership enhances the commitment level of employees.	DE13	0.729			
	Favourable entrepreneurial culture is prevailing in the society.	DE14	0.740			
	Government encourage the Digital entrepreneurship in the country.	DE15	0.683			
	Positive entrepreneurial culture leads the 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 clearly understood by all.	SC6	0.727			
Job Creation	Digital Entrepreneurship create jobs that benefits to increase economic security of employees.	JC1	0.736	0.743	0.838	0.564
	Digital Entrepreneurship create jobs that help employees to develop the skills necessary to launch a career path.	JC2	0.789			
	Digital Entrepreneurship create jobs that helps employees to enhances Career-building opportunities.	JC3	0.748			
	Digital Entrepreneurship create jobs that provides 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. Measurement model followed convergent and discriminant validity along with composite reliability of study scale. Researcher 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, 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 identifies that all the variables attain the convergent validity and construct reliability based on mentioned thresholds (See Table-II).

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 rage of 0.85 proposed by Kilne (2003) (See Table-III).

Mediation Analysis

Table-IV Total Effect

Hypotheses	Path	Coefficients	Standard Deviation	t-value	P-value	95% confidence interval	
H1	DE -> JC	0.203	0.043	4.687	0.000	0.137	0.304

Results represent digital entrepreneurship (DE) has significant effect on job creation (JC) under empirical evidence (β=0.203, t=4.687, p<.05, [0.137, 0.304]) in support of $\mathbf{H_1}$. The predictive power of the model reported R-square= 0.041 explaining 4.1% of the variance in job creation due to digital entrepreneurship (See Table-IV).

Table-V Direct effect

Hypotheses	Path	Coefficients	Standard Deviation	t-value	P-value	95% confidence interval	
H2	DE -> SC	0.221	0.045	4.897	0.000	0.148	0.323
H3	SC -> JC	-0.063	0.057	1.108	0.268	-0.173	0.048
H4	DE -> JC	0.216	0.047	4.644	0.000	0.135	0.317

Table-V the study results reported digital entrepreneurship (DE) has significant effect on social capital (SC) under empirical evidence (β=0.221, t=4.897, p<.05, [0.148, 0.323]) in support of $\mathbf{H_2}$**.** The study results indicate the insignificant effect of social capital (β=-0.063, t=1.108, p>.05, [-0.173, 0.048]) on job creation (JC) rejecting $\mathbf{H_3}$**.** The statistical results indicate significant direct effect of digital entrepreneurship on social capital (β=0.216, t=4.644, p<.05, [0.135, 0.317]) along with insignificant indirect effect of digital

entrepreneurship in table (β=-0.014, t=1.100, p>.05, [-0.043, 0.011]) rejects **H_4** (See Table-VI). We obtain clear evidence of no mediation of social capital on the relationship between digital entrepreneurship and job creation in study area under conceptual framework of mediation proposed by Preacher and Hayes (2007). The predictive power of the direct model in the presence of mediator reports R2=0.045 indicating 4.5% impact of digital entrepreneurship on job creation.

Table-VI Indirect effect

	Coefficients	Standard Deviation	t-value	P Value	95% confidence interval	
DE -> SC -> JC	-0.014	0.014	1.001	0.317	-0.043	0.011

Discussion

Study results showcased significant role of digital entrepreneurship in job creation, meaning that digital way of doing business is roadmap for reducing the evils of unemployment in an economy and opening new ways of self-employment supported by scholarly work of (Hamid & Khalid 2016; Anckar, 2016). Results revealed significant influence of digital entrepreneurship on social capital, explaining expansion of entrepreneurs' social circle by digital means that ultimately enhance social capital supported by scholarly work of (Davidson & Vaast, 2010; Zhao and Collier (2016). Study evaluated insignificant role of social capital in creating jobs, meaning that respondents perception reflects social capital haven't capture its place to secure employment opportunities for digital entrepreneurs. Meaning that digital entrepreneurs are unaware or may feel social capital is not mandatory feature of enhancing employment. The indirect insignificant effect in the present study haven't proved mediating role of social capital in the relationship between digital entrepreneurship and job creation. Here, these results explaining the validity of total effect that connects digital entrepreneurship and job creation. Hence, we got empirical evidence in connection to job creation that would be based on digital entrepreneurship irrespective of knowledge gained by digital entrepreneurs through social interaction in social networks i.e. social capital.

Conclusion

Modern world is facing many problems in every walk of life and unemployment on world level, this leads towards many social evils in the society. In order to handle these problems and evil of unemployment digital entrepreneurship activities and social capital of people are one of the best

solutions, that leads people (entrepreneurs) towards innovative behavior which ultimately find new ways to cope up problems and it also help in creating more jobs in the world to remove the evil of society. The aim of current research is to find the mediating role of social capital in relationship of digital entrepreneurship with job creation in Pakistan. It is concluded from the results that digital entrepreneurship significantly influenced job creation, meaning that with more digital entrepreneurial activities evil of unemployment reduced. It is concluded from the results that digital entrepreneurship significantly influenced social capital of entrepreneurs, meaning that digital entrepreneurship enhances social capital. Conclusive evidence revealed social capital insignificantly influenced the job creation in an economy. It is concluded from the results that social capital does not act as mediator in the relationship between digital entrepreneurship and job creation. Hence, empirical findings conclude that digital entrepreneurship enhances job creation in an economy significantly, but social capital of entrepreneurs does not play a mediating role in this causal relationship.

Policy Implications

Study in hand will made significant contribution towards shedding light on the concept of digital entrepreneurship, job creation and social capital. These findings have extensive importance to entrepreneurs, academicians and government.

Theoretical Implications

Research in hand will made contributions in Actor Network Theory with the inclusion of social capital as a moderator in the model. This research will help the entrepreneurs to deeply understand the relationship among digital entrepreneurship, job creation and social capital to make better decisions on the concepts and enhance the existing body of knowledge and provide the room to future researchers for exploration of the concepts in numerous directions.

Practical implications

This Research have many practical implications like: it will help the entrepreneurs to transform their conventional business to digital one. It will help the government to provide trainings to the dwellers of the country for commencement of digital entrepreneurship that will ultimately help to reduce unemployment by creation of more jobs via digital platforms. Current study will help the public and private organizations to use the findings of the research and made various decisions for the sustainable development of their organization via digital entrepreneurship.

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