Influence of Entrepreneurship Ecosystem on Economic Growth of Pakistan

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Summary
The study was carried out in order to understand the influence of entrepreneurship ecosystem on economic growth of Pakistan. The researcher has conducted extensive literature review and after extensive deliberation has chosen three independent variables namely, entrepreneurial talent development, entrepreneurial network development and entrepreneurial culture. The study variables were taken from the three key studies and the research instrument was also made by closely analyzing those studies. The study was based on the post-positivist empirical philosophy with deductive approach and quantitative in nature. But the research has used non-probabilistic sampling and 50 SMEs (as defined by the SMEDA) have been selected based on convenience sampling. The Pearson and Spearman correlation tests were conducted for hypotheses testing and significant relationship was found between entrepreneurial talent, entrepreneurial network development and entrepreneurial culture. Interestingly, the moderate association and significant relationship was also found between entrepreneurship ecosystem as a whole and economic growth of Pakistan. The study concluded that, improvement in entrepreneurship ecosystem can have an impact on the economic growth of Pakistan.

Key words:
Entrepreneurship Ecosystem, Economic Growth, Small Medium Enterprises Development Authority (SMEDA)

1. Introduction

Entrepreneurial ecosystem is defined as a collection of independent actors; those cooperate in such a way that leads to produce entrepreneurship within a specified location (Stam & Spigel, 2016). In the similar line of thought, the productive entrepreneurship is considered as an outcome of the ambitious entrepreneurship (Baumol, 1996). Hence, ambitious entrepreneurs are those, who discover and explore opportunities and then, produce new goods and services in order to exploit those opportunities and add maximum value (Stam et al., 2012). There has been a great advancement in the area of entrepreneurship in 20th century and that trend is still continued (Gartner & Shane, 1995). Kuratko (2016) simply defined entrepreneurship as a "dynamic process of vision, change and creation". Moreover, entrepreneurship has also been elaborated previously though three board perspectives: economic, social and idiosyncratic (Ward, 2004), although, quite recently, the fourth dimension is added in the list: emancipatory perspective, that emphasized on the need to disrupt the status quo through novel ideas, new institutions and finding new markets, products and possibilities (Rindova, Barry & Ketchen, 2009).On the other hand, Pakistan economy is structured in a way where service sector play a key role rather than agricultural or industrial sector, but however, majority of exports and job creation is still done by the agricultural sector (Anwar et al., 2018). Although, it has been observed that SME sector in Pakistan is contributing recently more than 30% in GDP and its export share is also almost the same (Zafar & Mustafa, 2017). However, it is quite less as compared to other developing countries like Ghana, Nigeria and Vietnam, and somehow that can be attributed to less industrialization in Pakistan because, manufacturing sector only accounts for little more than 20% in GDP formation. Undoubtedly, that is why, Pakistan is still considered the agricultural country because, its exports are heavily dependent on agriculture and more than 40% of total labor force is employed in that sector (Anwar et al., 2017).
Additionally, it was Alfred Marshall who gave the idea of industrial districts that emerged indirectly the idea of ecosystem in some way (Sheppard & Barnes, 2000). However, there was a lot of scholarship available especially after the re-emergence of industrial districts in 1980s (Sheppard & Barnes, 2000). But quite recently, a new model was suggested by Daniel Isenberg through his six domain approach: Finance, Policy, Culture, Institutional supportive system, Human Capital and Markets as key elements for ecosystem to develop and thrive (Isenberg & Onyemah, 2016). Ecosystem doesn't come into being without context and specific favorable conditions. For instance, the entrepreneurship ecosystem with economic development through his argument that effective ecosystem will enhance entrepreneurial activity

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which will eventually lead to contribute in economic growth and prosperity. Indeed, the example of Silicon Valley confirms the notion articulated by Saxenian (1996) that Silicon Valley success was based upon its social, cultural and institutional factors, those contributed in creating an environment where the communication was open, non-hierarchical and where there are no boundaries, hence the "regional network-based industrial system" was created. The concept was further enhanced by Stroper (1995) by arguing that, the conventions, informal rules and habits can work as glue for the economic actors to communicate in the uncertain environment and hence, work productively and efficiently and by that means contribute in economic growth and prosperity of certain territory. Feld (2012) pointed out that there are nine key elements of successful entrepreneurial ecosystem and WEF (2013)1 also highlighted that in its report that, there are nine pillars for forming successful entrepreneurial ecosystem along with its respective components. This research after thorough investigation and understanding of context in Pakistan has chosen three variables namely (entrepreneurial talent development, entrepreneurial network development and entrepreneurial culture) from above two studies in order to comprehend their impact on economic growth of Pakistan.

2. Problem statement

Pakistan reached its highest growth rate of 7.5% in 2004-05 and that scenario has not been rebound since then, but the ray of hope emerged during last 2 years when the economy started to grow at least more than 5% and remained intact there until 2017-18(Economy survey 2017-18). However, 'small and medium enterprises' (SMEs) are the 'backbone' of any emerging economy like Pakistan contributed 30% or 40% depending on the source cited but, the same contribution remained there for a long time (Khan & Abasyn, 2017). However, when the situation is compared with Vietnam- the new emerging economy recently developing their name internationally contributing 21% in global value chain through their SMEs (Das, 2017), while the data in the case of Pakistan remained unavailable, only the data that gave some notion of it is the 1.7% contribution of SMEs in manufacturing in Pakistan (Khan & Abasyn, 2017). Although, the entrepreneurship ecosystem is defined as 'ASAN' i.e. entrepreneurial system that consists of a complexity and diversity of actors, roles, and environmental factors those interact in order to determine the entrepreneurial performance of a region or locality (Spilling, 1996). While, the global trade has been reverting back towards its path of growth, the contribution of entrepreneurial ecosystem in the economic growth of Pakistan remained a question unanswered for decades. Hence, this study will try to fill this gap in order to find the relationship between entrepreneurship ecosystem and economic growths of Pakistan as, the SMEs are going to play a key role in the future 'economic development' of Pakistan.

Significance of study

However, the field of entrepreneurship is not new but, it was Schumpeter (1961) who gave the new dimension to the field by connecting it to the process of creative destruction and particularly innovation. He argued that, an entrepreneur is the one who creates value through innovation and by that means, contributes into the economic development of the country, although not much at earlier stage of economic development. Kirzner (2002), however, almost a decade later, disagreed with the assertion and defined entrepreneur as an individual who finds an opportunity and exploit that opportunity for profit seeking whether with or without innovation. This kind of entrepreneurship is more to be found in developing countries as compared to developed countries, where disequilibrium or asymmetric information is more common (Naude, 2013). Entrepreneurship ecosystem mainly has similar features with industrial districts and clusters in one way, although not similar in another way as entrepreneur is the key player in the ecosystem nevertheless, the framework is the same (Stam & Spigel, 2016). But one thing that needs to be noticed that, an ecosystem is a system so, it is bound to have systematic premises and conditions. It depends on the process which involves different players (networks of entrepreneurs, leadership, finance, and talent, knowledge, and support services) and the rules defined among them preceded their action and outcome which ultimately leads towards success or failure (Stam, 2015). The above discussion has lead this study towards the components those contribute into the formation of an ecosystem and that eventually impact on the economic growth of the country. Hence, this study has chosen Entrepreneurial talent development and Entrepreneurial network development as its independent variables from the study of Feld (2012) who defined nine key components of entrepreneurship ecosystem and cultural support from the World Economic Forum Report (2013) which highlighted eight pillars of entrepreneurship ecosystem based on the extensive data of multiple countries.

Research hypothesis

- H1: There is a significant relationship between entrepreneurial talent development and 'economic growth' of Pakistan
- H2: There is a significant relationship between entrepreneurial network development and 'economic growth' of Pakistan
- H3: There is a significant relationship between

entrepreneurial culture and 'economic growth' of Pakistan

- H4: There is an overall significant relationship between entrepreneurship ecosystem and 'economic growth' of Pakistan

Research objectives

- To find out the influence of entrepreneurial talent development on the 'economic growth' of Pakistan
- To find out the influence of entrepreneurial network development on the 'economic growth' of Pakistan
- To find out the influence of entrepreneurial culture on the 'economic growth' of Pakistan
- To find out how the different components of ecosystem through their operationalization is having an impact on the 'economic growth' of Pakistan
- To understand the overall impact of entrepreneurship ecosystem on the 'economic growth' of Pakistan.

Literature review

Entrepreneurial ecosystems normally combine social, cultural, political, and economic elements within a single territory that can facilitate the development and growth of innovative start-ups and motivate new entrepreneurs and other stakeholders to take the concealed risk of starting, funding, and otherwise helping 'high-risk' ventures (Spigel, 2017). Moore (1993, 1996) defined ecosystem as a kind of community which has interconnected diverse players with complementary competences and those engaging in a value-creation process but however, it generally requires the management of interdependencies between different players, eventually orchestrated by a leading organization (Gawer & Cusumano, 2013), and also creating a right balance between cooperation and competition among them (Demil et al., 2018). Entrepreneurial ecosystems can be compared with industrial districts, clusters, and innovation systems because, entrepreneurs and spin-offs could be sighted in those other frameworks as well but they are not at the core as in the case of entrepreneurial ecosystems (Stam & Spigel, 2016). Entrepreneurial ecosystems mostly emergent places those already have place-specific assets e.g. Oxford, emerged as an entrepreneurial ecosystem is undoubtedly related to its strategic location with regard to London and Heathrow airport, it's a as a place in which to dwell, the university and its popular global brand and distinct cluster of UK government laboratories (Smith, 2018). The World Economic Forum (2013) and Isenberg and Onyemah (2016) both have shed light upon the factors such as local and international markets those are easily accessible, unused human capital and financing, mentorship and support systems, robust regulatory frameworks, and major universities are the crucial elements for any ecosystem. In addition, entrepreneurial ecosystem can be regarded as a collection of interdependent stakeholders, those coordinate in such a way that they help in creating productive entrepreneurship. That is why; entrepreneurial activity is regarded as a process through which individuals or potential entrepreneurs create opportunities for innovation and that innovation will eventually lead to new value in society and that is how, the entrepreneurial activity becomes the "ultimate outcome" of an entrepreneurial ecosystem. While this entrepreneurial activity could be more of an "intermediary output" of the system, but it has a good number of illustrations in the form of innovative start-ups, high-growth start-ups and entrepreneurial employees (Stam, 2015). Ecosystem approach is different from other economic policy approaches because it doesn't merely consider entrepreneurship as a result of the system, but also perceive the significance of entrepreneurs as key players (leaders) in the creation of the system and in keeping the system healthy. Hence, the "privatization" of entrepreneurship policy will reduce the governmental role while comparing it withhold policy approaches, those do not alter the fact that the government role still has its importance, but rather as a 'feeder' of the ecosystem than as a 'leader' (Feld, 2012).He also then suggested that entrepreneurs should lead an entrepreneurial ecosystem as Sweeney and Sweeney observed the same by saying that "Government and its agencies can create the environment in which entrepreneurs will prosper, but they cannot make the decisions to invest, to innovate, to start or to expand, this should be the job of an entrepreneur" [Sweeney and Sweeney, (1987), p.9]. Feldman and Francis (2006) added to this by highlighting that "a fully functioning entrepreneurial environment" is mainly emerging from individual activities of entrepreneurs, organizations and institutions those influence each other in order to create a "coherent system." They characterized stable cluster as having stable industry networks, supportive local culture, and ability to withstand reconfiguration or adverse shocks. They consider decline as most likely early in the life of a cluster rather than after maturity, when a robust sequence of "entrepreneurial spawning" takes place (Mason, 2008). Aoyama (2009) highlighted that regional cultures influence entrepreneurial activities "by shaping acceptable entrepreneurial practices and norms". Moreover, Saxenian's (1996) while comparing Silicon Valley and Boston notably mentioned regarding how cultural attitudes toward entrepreneurship and risk taking can lead towards radically divergent economic and entrepreneurial routes. He highlighted that, cultural beliefs can normalize an outlook about entrepreneurship, that can be seen as a standard part of a person's career path or as something to

be undertaken only when no other option is possible (Kibler et al., 2015). Eventually, it helps creating an environment encompassing entrepreneurship that in addition, supports firm creation and also motivate others to assist in risky entrepreneurial endeavours (Ritsila, 1999). It is hinted by most economic literature of current era that entrepreneurship can play a decisive role in economic growth as it provides a strong drive for economic development, and the innovative entrepreneurship as a factor that contributes to the economic development through increased wealth, creating with considerable added value as a result of harnessing the opportunities and innovation (Diaconu & Dutu, 2015). This is the idea given earlier in the 21st century by Joseph Schumpeter through his book titled "The Theory of Economic Development" in which he mentions that, entrepreneurship is a major cause of economic growth because it permits the means of production in a society to be employed in novel and more efficient combinations (Schumpeter, 1934). Hence, he claimed that it is entrepreneurship (not merely knowledge) which causes technological innovation (Smith, 2010).

However, Dahlstrand & Stevenson (2010) made a clear distinction between entrepreneurship and innovative entrepreneurship by explicitly arguing that, primarily the entrepreneurship aim is to increase employment, but the innovative entrepreneurship main area of interest is to increase 'value-added' jobs with high growth margins. Likewise, in the case of EU member countries, the association between an 'innovative entrepreneurship' and 'economic development' is that 'innovative entrepreneurship' may have a radical impact on the level of 'economic development' of those countries (Szabo & Herman, 2012). Therefore, 'innovative entrepreneurship' is vital for sustainable growth specifically for the 'emerging market economies'. However, the labor market bestow massive challenge for emerging market economies for all the flagship enterprises such as, education, climate, competitiveness, information society, and innovation. However, entrepreneurship is also increased due to unemployment among the youth of the globe as the switch between school and practical life is a process that is not discoursed in the educational institutions and it is not supported systematically by educational and business milieu, as fact most of the employers in the job market want to employ experiences young employees that leads the job attrition is high among young people until they find a satisfactory job. Besides education norms, the reason might be demographic tendencies, economic milieu, and labor market protocols (Diaconu & Dutu, 2015).

Although, Levine (1965) has found a direct association between the 'employment rate' and 'economic growth'. Sharma & Madan (2014) stated that the entrepreneurship is a way for the educated young individuals to unfold their hidden potential and turn it into a successful business idea, because it is a medium through which many young educated talent scan explore their potential and gain profit from their successful business ideas. However, the induction of 'entrepreneurial education', 'timely access to finance' and 'necessary support' for new start-ups are also some important factors to increase employment (Oyelola et al., 2014). However, this research has chosen three key studies of Feld (2012), WEF report (2013) and Stam (2015) as the key sources from which most of the literature and the direction of this research is set. The research variables and the operationalization of those variables have also been guided by the above studies including crafting the research instrument for this study.

Conceptual framework

According to Stam (2015), government has a minor role at the background. Feld (2012) described in his study, the nine key components of the entrepreneurship ecosystem i.e. government, leadership, talent, support services, intermediaries, network density, engagement, companies, and capital. Further, he emphasized that entrepreneur himself is the key player in the ecosystem. Similarly, the report of 'World Economic Forum' (2013) on 'Entrepreneurial Ecosystems Around the Globe and Company Growth Dynamics' highlighted that, there are mainly eight key components of entrepreneurial ecosystem namely, human capital, accessible markets, funding and finance, support system, education and training, regulatory framework and infrastructure, universities as a change catalyst and culture. Moreover, Stam (2015) recently reconciled the both studies mentioned above and created a new ecosystem that consists of four main ontological layers (i.e. framework conditions, systemic conditions and outputs and outcomes) including the upward and downward connections, and intra-layer causal relations. But he also mentioned that the 'system conditions' are the core of the ecosystem. For example, entrepreneurial networking, leadership, talent, knowledge, support and finance availability. Therefore, an interconnection between these components mainly determines the success of the ecosystem. That is why; this study has taken the three main elements of entrepreneurship ecosystem, those covered by all these above-mentioned studies in one way or another: Entrepreneurial Talent Development, Entrepreneurship Network Development and Entrepreneurial culture, in order to understand their impact on economic growth of Pakistan statistically.

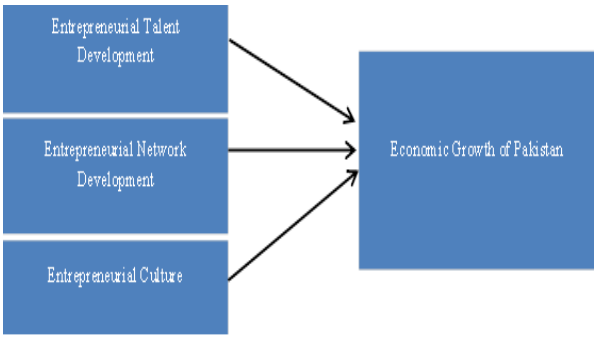

Fig. 1 Conceptual Framework of the Study

3. Methodology

It is the way to systematically and theoretically analyze the methods employed in any field of study; hence it could be ascribed as the theoretical investigation of methods and principles connected with a branch of knowledge. Typically, it can include all concepts such as paradigms, theoretical models, phases and quantitative or qualitative techniques (McCusker & Gunaydin, 2015). Hence, this research has chosen the post-positivism philosophy as it is the philosophy that mentioned regarding the concept that truth can't be justified with the assumption of its verification through a theory but its falsification as well as opposed to the approach of positivism (Fox, 2008). This study has used the quantitative paradigm and it is a cross-sectional correlational study as it has taken the data from the start-up founders at one point in time. The study has used the quantitative methods as those methods focus on measurements that are objective, with statistical analysis or numerical data collecting (Creswell & Creswell, 2017). However, this research has used convenience sampling because the targeted population of the study participants was unknown and hence, that is the kind of non-probability

sampling in which individuals from targeted population are chosen for the study based on easy access and convenience of the researcher (Bryman, 2016). LoBiondo-Woodand Haber (1998) described sample as a portion or subset of the research population selected to participate in a study, representing the research population. Hence, this study chosen convenience sampling and selected 50 SMEs (as defined by the SMEDA) through non-probabilistic sampling in order to understand the entrepreneurial ecosystem phenomenon and thereby its impact on the economic growth of Pakistan.

Reliability and Validity

Validity and reliability are two key parameters especially in the quantitative study to judge a good research because, they can provide the authenticity of the data normally required in the quantitative study. Hence, when the questionnaire is used in any quantitative study, its validity and reliability always remains a linchpin based on which the whole research process loaded. Therefore, validity is the extent to which an instrument accomplishes, what it is required by an instrument to accomplish and measures, what it is presumed to measure (Heale &Twycross, 2015). That is why, when the instrument reliability measurement is above than 0.70 then the research results are considered reliable and valid. Hence, this research has used SPSS reliability technique in order to find the reliability and validity of the research instrument and found that, the research instrument is valid and reliable as Cronbach's alpha in SPSS is more than 0.70 as that is the standard being used to measure the reliability and validity of the instrument.

Table 1: Reliability of the instrument

'Scale Reliability'	
Cronbach's Alpha	N of Items
.868	22

4. Results and Discussion

This section is divided into two parts: i) descriptive and ii) inferential analysis. The first part is going to highlight mainly the demographic data of this study while; the second part will depict the picture of relationships between independent and dependent variables, that will eventually results in approving or disapproving of hypotheses of this study.

Descriptive Analysis

Descriptive analysis is the procedure through the large amount of data can be simplified and the meaningful inference can be taken from that data either in the form of tables or graphs, it is the method to understand the trend of the data and the inclination of the participants.

Table 2: Illustrates that all the start-ups participated in the study were not older than 5 years

	'Frequency'	'Percent'	'Percent	'Cumulative Percent'
Yes.	50.	100	100	100

Table 3: Represent the gender percentage and most of the respondents were males as the Pakistan is still a parochial society

	'Frequency'	'Percent'	'Valid Percent'	'Cumulative Percent'
Male.	41	82	82	82
Female.	9	18	18	100
Total.	50	100	100	

Table 4: Represents that the sample participants age and most of the respondents running their start-ups were under the age of 30

	'Frequency'	'Percent	'Valid Percent'	'Cumulative Percent'

18-24	14	14	28	28
24-30	27	27	54	82
30-36	3	3	6	88
36-42	3	3	6	94
42-48	3	3	6	100
Total	50	100	100	

Table 5: Represents the sample participant's educational background and most of the start-ups' owners had passed their bachelor's degree in any field

	'Frequency	'Percent'	'Valid Percent'	'Cumulative Percent'
Bachelor's degree (Business & Management/commerce/economics, ACCA etc.)	22	44	44	44
Bachelor's degree (Engineering/electrical/electronic/mechanical/civil/enviornmental etc.)	4	8	8	52
Bachelor's degree (IT, computer science, software engineering, computer engineering, etc.)	11	22	22	74
Master's Degree (Business & Management/accounting, finance, HR, CFA, CIMA etc.)	10	20	20	94
Master's Degree (Engineering, IT, computer science, industrial management, etc.)	3	6	6	100
Total	50	100	100	

Table 6: Represents the number of founders started their start-ups participated in the study and most of them started with alone or not more than 3 founders

	'Frequency'	'Percent'	'Valid Percent'	'Cumulative Percent'
0-1	11	22	22	22
1-3	34	68	68	90
3-5	4	8	8	98
7 or more	1	2	2	100
Total	50	100	100	

Table 7: Represents the number of employees hired by the start-ups and most of them hired up to 8 employees whether permanently or on part time basis

	'Frequency'	'Percent'	'Valid Percent'	'Cumulative Percent'
0-4	15	30	30	30
4-8	18	36	36	66
8-12	8	16	16	82
12-16	2	4	4	86
16 or more	7	14	14	100
Total	50	100	100	

Table 8: Illustrates that most of the respondents agreed up to 40% that, universities producing graduates can create value through entrepreneurship

	'Frequency'	'Percent'.	'Valid Percent'	'Cumulative Percent'
0-20%	18	36	36	36
20-40%	15	30	30	66
40-60%	11	22	22	88
60-80%	6	12	12	100
Total	50	100	100	

Table 9: Illustrates that most of the respondents agreed on the notion that, training provided on auxiliary skills can promote entrepreneurship in the country from 40-100%

	'Frequency'	'Percent'	'Valid Percent'	'Cumulative Percent'
0-20%	9	18	18	18
20-40%	10	20	20	38
40-60%	11	22	22	60
60-80%	8	16	16	76
80-100%	12	24	24	100
Total	50	100	100	

Table 10: Illustrates that most of the start-up owners nodded their head in the agreement ranging from 40-100% that university-industry linkage can promote entrepreneurship and contributing in entrepreneurship ecosystem in Pakistan

	'Frequency'	'Percent'	'Valid Percent'	'Cumulative Percent'
0-20%	6	12	12	12
20-40%	6	12	12	24
40-60%	17	34	34	58
60-80%	9	18	18	76
80-100%	12	24	24	100
Total	50	100	100	

Table 11: Illustrates that most of the start-up owners agreed ranging from 40-80% that, existing entrepreneurs supporting each other can enhance entrepreneurship and hence, contributing in entrepreneurship ecosystem in Pakistan

	'Frequency'	'Percent'	'Valid Percent'	'Cumulative Percent'
0-20%	7	14	14	14
20-40%	10	20	20	34
40-60%	17	34	34	68
60-80%	11	22	22	90
80-100%	5	10	10	100
Total	50	100	100	

Table 12: Illustrates that half of the start-up owners in this study gave the signal that, large companies located at one strategic location can enhance entrepreneurship from 40-60% and hence contribute in entrepreneurship ecosystem in Pakistan

	'Frequency'	'Percent'	'Valid Percent'	'Cumulative Percent'
0-20%	5	10	10	10

20-40%	10	20	20	30
40-60%	25	50	50	80
60-80%	6	12	12	92
80-100%	4	8	8	100
Total	50	100	100	

Table 13: Illustrates that majority of the start-up owners in this study gave the signal that, formal (SMEDA) or informal organizations (Incubation centers) gathering entrepreneurs, investors, mentors, customers, professional service providers and suppliers at one place can promote entrepreneurship ranging from 20-80% and hence, contributing in entrepreneurship ecosystem in Pakistan

	'Frequency'	'Percent'	'Valid Percent'	'Cumulative Percent'
0-20%	6	12	12	12
20-40%	11	22	22	34
40-60%	5	10	10	44
60-80%	21	42	42	86
80-100%	7	14	14	100
Total	50	100	100	

Table 14: Illustrates that majority of the start-up owners in this study gave the signal that, parental support in the form of not imposing their own career choice on their children can enhance entrepreneurship ranging from 40-100% and by that means, contribute in entrepreneurship ecosystem in Pakistan

	'Frequency'	'Percent'	'Valid Percent'	'Cumulative Percent'
0-20%	2	4	4	4
20-40%	9	18	18	22
40-60%	11	22	22	44
60-80%	15	30	30	74
80-100%	13	26	26	100
Total	50	100	100	

Table 15: Illustrates that majority of the start-up owners in this study gave the signal that, parental support in the form of not imposing their own career choice on their children can enhance entrepreneurship ranging from 40-100% and by that means, contribute in entrepreneurship ecosystem in Pakistan

	'Frequency'	'Percent'	'Valid Percent'	'Cumulative Percent'
0-20%	3	6	6	6
20-40%	16	32	32	38
40-60%	11	22	22	60
60-80%	11	22	22	82
80-100%	9	18	18	100
Total	50	100	100	

Table 16: Illustrates that majority of the start-up owners in this study showed their consent and nodded their head in agreement ranging from 40-100%, while asking question regarding role of general media highlighting successful entrepreneurs in promoting entrepreneurship that can contribute eventually in entrepreneurship ecosystem in Pakistan

	'Frequency'	'Percent'	'Valid Percent'	'Cumulative Percent'
0-20%	3	6	6	6
20-40%	10	20	20	26
40-60%	10	20	20	46
60-80%	17	34	34	80
80-100%	10	20	20	100
Total	50	100	100	

Table 17: Illustrates that majority of the start-up owners in this study showed their consent and nodded their head in agreement ranging from 40-80%, while asking question regarding more investment made by (Govt/Parents/Universities/Society) in entrepreneurship ecosystem, that can increase purchasing power of the masses and hence, eventually contribute in economic growth of Pakistan

	'Frequency'	'Percent'	'Valid Percent'	'Cumulative Percent'
0-20%	2	4	4	4
20-40%	5	10	10	14
40-60%	15	30	30	44
60-80%	20	40	40	84
80-100%	8	16	16	100
Total	50	100	100	

Table 18: Illustrates that majority of participants in this study agreed on the argument ranging from 60-100% that, better entrepreneurship ecosystem can create more jobs and decrease unemployment and hence by that means, contribute positively in economic growth of Pakistan

	'Frequency'	'Percent'	'Valid Percent'	'Cumulative Percent'
20-40%	5	10	10	10
40-60%	11	22	22	32
60-80%	13	26	26	58
80-100%	21	42	42	100
Total	50	100	100	

Table 19: Illustrates that; majority of participants in this study agreed on the argument ranging from 60-100% that, better entrepreneurship ecosystem can attract more foreign investment and hence, contribute in economic growth of Pakistan

	'Frequency'	'Percent'	'Valid Percent'	'Cumulative Percent'
0-20%	4	8	8	8
20-40%	3	6	6	14
40-60%	9	18	18	32
60-80%	17	34	34	66
80-100%	17	34	34	100
Total	50	100	100	

Inferential Analysis

Inferential analysis is the statistical techniques through which a researcher can test hypotheses and draw inferences from the findings of a study (Baddie & Halley, 1995; Kolawole, 2001). There are mainly two statistical techniques: nonparametric and the parametric tests.

Table 20: 'Pearson correlation' based on H1

Hypothesis 1: Entrepreneurial Talent Development			
		'H1'	'Dependent'
'H1'	'Pearson Correlation'	1	.433**
	'Sig. (2-tailed)'		.002
	N	50	50
'Dependent'	Pearson Correlation'	.433**	1
	'Sig. (2-tailed)'	.002	
	N	50	50
**Correlation is significant at the 0.01 level (2-tailed)			

Table 21: 'Spearman correlation' based on H1

			'H1'	'Dependent'
'Spearman's rho'	H1	Correlation Coefficient.	1.000	.457**
		Sig. (2-tailed).		.001
		N.	50.	50.
	Dependent	Correlation Coefficient.	.457**	1.000
		Sig. (2-tailed).	.001	.
		N.	50.	50.
**Correlation is significant at the 0.01 level (2-tailed)				

The two tests Pearson and Spearman correlation were conducted by using SPSS, the confidence level was set 95%, and then, it was found that there is a significant relationship between entrepreneurial talent development and economic growth of Pakistan. But, the strength of relationship is moderate in nature. However, the first hypothesis of this study is accepted.

Table 22: 'Pearson correlation' based on H2

Hypothesis 2: Entrepreneurial Network Development			
		'H2'	'Dependent'
H2	'Pearson Correlation'	1	.525**
	Sig. (2-tailed).		.000
	N.	50	50
Dependent	'Pearson Correlation'	.525**	1
	Sig. (2-tailed).	.000	
	N.	50	50
**Correlation is significant at the 0.01 level (2-tailed)			

Table 23: 'Spearman correlation' based on H2

			'H2'	'Dependent'
'Spearman's rho'	H2	Correlation Coefficient.	1.000	.498**
		Sig. (2-tailed).		.000
		N.	50.	50.
	Dependent	Correlation Coefficient.	.498**	1.000
		Sig. (2-tailed).	.000	
		N.	50.	50.
**Correlation is significant at the 0.01 level (2-tailed)				

The two tests Pearson and Spearman correlation were conducted by using SPSS, the confidence level was set 95%, and then, p value of 0.000 is extracted. Hence it was concluded at the end, that there is a significant relationship between entrepreneurial network development and economic growth of Pakistan. However, the strength of relationship is moderate in nature, but, by that means, the second hypothesis of this study is also accepted.

Table 24: 'Pearson correlation' based on H3

Hypothesis 3: Entrepreneurial Culture:			
		H3	Dependent
H3	'Pearson Correlation'	1	.649**
	Sig. (2-tailed).		.000
	N.	50.	50.
Dependent	'Pearson Correlation'	.649**	1
	Sig. (2-tailed).	.000	
	N.	50.	50.
**Correlation is significant at the 0.01 level (2-tailed)			

Table 25: 'Spearman correlation' based on H3

			H3	Dependent
'Spearman's rho'	H3	Correlation Coefficient.	1.000	.624**
		Sig. (2-tailed).	.	.000
		N.	50.	50.
	Dependent	Correlation Coefficient.	.624**	1.000
		Sig. (2-tailed).	.000	.
		N.	50	50.
**Correlation is significant at the 0.01 level (2-tailed)				

The two tests Pearson and Spearman correlation were conducted by using SPSS, the confidence level was set 95%, and then, p value of 0.000 is extracted. Hence it was ultimately discovered by using those tests that, there is also a significant relationship between entrepreneurial culture and economic growth of Pakistan. However, this time, the strength of relationship is more than 60%, thus strong in nature, hence, the third hypothesis of this study is also accepted.

Table 26: 'Pearson correlation' based on H4

Hypothesis 4: Entrepreneurship Ecosystem and Economic Growth			
		Independent	Dependent
Independent	'Pearson Correlation'	1	.626**
	Sig. (2-tailed).		.000
	N.	50	50
Dependent	'Pearson Correlation'	.626**	1
	Sig. (2-tailed).	.000	
	N.	50	50
**Correlation is significant at the 0.01 level (2-tailed)			

Table 27: 'Spearman correlation' based on H4

			Independent	Dependent
'Spearman's rho'	Independent	'Correlation Coefficient'	1.000	.618**
		Sig. (2-tailed).	.	.000
		N.	50	50
	Dependent	Correlation Coefficient.	.618**	1.000
		Sig. (2-tailed).	.000	.
		N.	50	50
**Correlation is significant at the 0.01 level (2-tailed)				

The two tests Pearson and Spearman correlation were conducted by using SPSS, the confidence level was set 95%, and then, p value of 0.000 is extracted. Hence it was probed by using those tests that, there is also a significant relationship between entrepreneurship ecosystem as a whole and economic growth of Pakistan. However, this time, the strength of relationship is more than 60%, thus strong in nature, hence, the fourth and final hypothesis of this study is also accepted.

5. Discussion

This research was conducted in order to understand the entrepreneurship ecosystem in terms of entrepreneurial talent development, entrepreneurial network development and entrepreneurial culture and to find out the relationship between entrepreneurship ecosystem and economic growth of Pakistan. Moore (1993, 1996) defined ecosystem as a kind of community which has interconnected diverse players with complementary competences and those engaging in a value-creation process but however, it generally requires the management of interdependencies between different players, eventually orchestrated by a leading organization (Gawer & Cusumano, 2013), and also creating a right balance between cooperation and competition among them (Demil et al, 2018). However, this research was based on three key studies of Feld (2012), WEF report (2013) and Stam (2015). The research was based on the post-positivist empirical philosophy with deductive focus as well. The research has used non-probabilistic sampling and 50 SMEs (as defined by the SMEDA) have been selected based on convenience sampling. The research instrument was designed by using three different entrepreneurship models namely, Koltai's Entrepreneurship Ecosystem Model (2014), Foster et al., (2013) and Isenberg and Onyemah (2016).

However, the correlational design was chosen for this study as the hypotheses were made to find relationship not causation and hence, each of the relationships between independent and dependent variable was found through Pearson and Spearman correlation tests. Although, while conducting descriptive analysis on the data, it was found that, most of the respondents (owners of the start-ups) of this study were males as the Pakistan is still a parochial society. Moreover, most of them were under the age of 30. Furthermore, most start-ups participated in this study were founded by up to 3 individuals and most of them were having at least Bachelor's degree in their field of choice. However, most of the start-ups had hired up to 8 individuals in their respective businesses. While asking regarding the role of universities in promoting entrepreneurship, majority of the respondents gave university-industry linkage a prime value in prompting entrepreneurship ecosystem and hence, contributing in economic growth of Pakistan. Although, while asking regarding the contribution of huge number of large companies located at any single strategic location and the role of formal (SMEDA) or informal organizations (Incubation centers) in gathering entrepreneurs, investors, mentors, customers, professional service providers and suppliers at one place in order to enhance entrepreneurship, most of the start-up owners were agreed on the notion more than 40%. However, while asking regarding the role of parents and general media in promoting entrepreneurship, most of the respondents gave more than 60% value to these factors in promoting entrepreneurship ecosystem and hence contributing eventually in economic growth of Pakistan. Although, while asking regarding the risk-taking behavior acceptance by the society at aggregate level, up to 60% value was given by most of the start-up owners to that nation.

Finally, while inquiring about the value of more investment if made by different stakeholders in the future (Govt/Parents/Universities/Society) and its impact on economic growth of Pakistan through enhancing entrepreneurship ecosystem, and whether better entrepreneurship ecosystem can create more jobs and decrease unemployment or better entrepreneurship ecosystem can attract more foreign investment, most of the start-up owners considered these factors having more than 60% influence on economic growth of Pakistan. Last but not the least, the hypotheses of this study was tested by using two statistical tests: Pearson and Spearman. It was found while applying those tests that, there is a significant relationship between entrepreneurial talent development and economic growth of Pakistan. However, the strength of relationship is moderate in nature as the value of correlation coefficient is between 40 to 50%. In addition to that, when the second hypothesis was tested by using Pearson and Spearman correlation, it was concluded at the end that, there is a significant relationship between entrepreneurial network development and economic growth of Pakistan. However, the strength of relationship is moderate in nature, because the value of r is between 40

to 50%. Although, when the third hypothesis was tested by using SPSS, it was discovered that, there is a significant relationship between entrepreneurial culture and economic growth of Pakistan. However, the strength of relationship was found to be more than 60%, and it can be inferred that culture plays a more significant role in entrepreneurship ecosystem and subsequently in economic growth of Pakistan. Ultimately, all three independent variables (i.e. entrepreneurial talent, entrepreneurial network development and entrepreneurial culture) were combined to comprehend their cumulative impact on economic growth of Pakistan. It was hence found that, there is also a significant relationship between entrepreneurship ecosystem as a whole and economic growth of Pakistan. However, this time, the strength of relationship was also more than 60%, thus strong in nature, that is why, it can be inferred with some certainty that, better entrepreneurship ecosystem can contribute positively in the economic growth of Pakistan.

6. Conclusion

The study was conducted in order to comprehend empirically the contribution of entrepreneurship ecosystem that is taken in terms of entrepreneurial talent, entrepreneurial network development and entrepreneurial culture, in the economic growth of Pakistan. Entrepreneurial ecosystems consist of social, political, economic, and cultural elements within a region that facilitate the development and growth of innovative start-ups and encouraging new entrepreneurs and other actors to take the risks of starting, funding, and otherwise supporting high-risk ventures (Spigel, 2017). The study was conceptualized based on the studies done by Feld (2012), WEF report (2013) and Stam (2015). The study was also based on the presumption that, entrepreneurship ecosystem can play a vital role in the economic growth of Pakistan as, the countries like Vietnam and Bangladesh performing much better in global value chain than Pakistan and SMEs are the backbone of most of the developing economies. However, while achieving the objectives of the study, post-positivist empirical philosophy research methodology was used and thereby the focus was on quantitative paradigm. The study was basically correlational in nature and used cross-sectional approach. It has taken the path of non-probabilistic sampling and hence 50 SMEs (as defined by the SMEDA) have been selected through convenience sampling. In addition to that, the study used two statistical tests: Pearson and Spearman in order to test the research hypotheses of this study. It was found while applying those tests that, there is a significant relationship between entrepreneurial talent development and economic growth of Pakistan as the p value was less than 0.05 and confidence level was set to be 0.05. However, the strength of relationship was found to be moderate in nature as the value of correlation coefficient was between 40 to 50%. Similarly, when the second hypothesis was tested, it was concluded that, there is a significant relationship between entrepreneurial network development and economic growth of Pakistan as well. However, the strength of relationship was also moderate in nature. However, when the third hypothesis was tested, it was discovered then, there is also a significant relationship between entrepreneurial culture and economic growth of Pakistan. However, the strength of relationship was found to be more than 60%, and it can be inferred that culture plays a more significant role in entrepreneurship ecosystem and subsequently in economic growth of Pakistan. Last but not the least, when all three independent variables (i.e. entrepreneurial talent, entrepreneurial network development and entrepreneurial culture) were combined to comprehend their cumulative impact on the economic growth of Pakistan, ultimately it was then found that, there is also a significant relationship between entrepreneurship ecosystem as a whole and economic growth of Pakistan and the strength of relationship was also strong in nature. It implies that, a better entrepreneurship ecosystem by producing graduates willing to take the entrepreneurial path or by providing training on auxiliary skills to become entrepreneurs can somehow contribute in the economic growth of Pakistan. It can also be inferred that, by having necessary auxiliary skills, engagement with entrepreneurial network and the support from the family and friends, an individual can play his/her role as an entrepreneur categorically into the economic growth of Pakistan either in the present or in the future.

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