

Why Is Technopreneurship Developing Slowly in Pakistan?

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Abstract

Technopreneurship is a budding concept in Pakistan. This concept is gaining importance due to the high rate of unemployment in developing countries and increasing socio-economic pressures. Pakistan is also working to raise awareness regarding technopreneurship in the country but there are still some loopholes hindering the development. This study has been conducted to identify the reasons for slow development of technopreneurship in Pakistan. For this purpose, 15 semi-structured interviews were conducted with technopreneurs and their perspectives and responses are classified into three themes of the study that portrays an in-depth explanation of low penetration of technopreneurship in Pakistan. The findings of the study revealed that the curriculum, syllabi, educational policies and teaching methods are not upgraded which fails to play a positive role in the development of technopreneurship. Moreover, governmental leadership and governance are ineffective to strategize in motivating and guiding people to become successful technopreneurs. Findings have also shown that the society and culture of Pakistan is not very conducive to welcome people to go out of the box and start their own business. Parents do not want their kids to take risks and adopt technopreneurship as a career field. The findings point towards the unhealthy cultural and social complexities for technopreneurship in Pakistan that overarch with the anthropological entrepreneurship theory to explain why technopreneurship is not developing at a fast pace.

Keywords: Entrepreneurship, Technopreneurship, Venture, Business, Educational Institutions, Government, Society.

In this era of Information and Communication Technology (ICT) explosion, businesses all over the world have redesigned their functioning and have become digital. The global technopreneurial realization has made businesses rethink their approach and base their models on technology-aided methods. Facebook, Snapchat, Uber, Amazon, AirBnB and Google are the early pioneers of digital businesses that turned around the entrepreneurial scenario globally. Besides Pakistan also being in the race of acknowledging technopreneurship, why is it that we see less influential technopreneurs from Pakistan? Why is the phenomenon appearing to evolve slowly in Pakistan?

For the development of the economy and to deal with contemporary trends and challenges, every country needs to protract a heavy share in the world economy. To be part of this economic competition, underdeveloped countries are facing various challenges like lack of employment opportunities, lack of financial resources and brain drain amongst which unemployment is the biggest problem (Dev & Mahajan, 2003). Practitioners suggest various approaches for solving problems in underdeveloped states and the most practical approach highlighted is public investment opportunities for improvement of labor skills and public infrastructure development (Rivlin, 1991). For this purpose, the promotion of entrepreneurship can prove rewarding (Haque, 2011).

It is considered as an ideal situation where the government of any country provides employment opportunities to everyone equally but in reality, the government cannot do this alone. Entrepreneurship development can serve the purpose by supporting society and economy through creating jobs and stabilizing financial circumstances (Praag & Versloot, 2007). Entrepreneurship has come to limelight especially in developing countries for enhancing economic development and stability. Researchers have conducted a number of studies in this area for promoting entrepreneurship not only at individual level but also at industrial level but unfortunately, Pakistan lags in this field as well. Global Entrepreneurship Monitor Report 2011 has reported that Pakistan as compared to China has lower number of opportunity-driven entrepreneurs who intentionally grab the opportunity to be an entrepreneur (Sarraz & Qureshi, 2012). Another survey GUESS has ranked Pakistan at the lowest position in terms of students' intention to pursue entrepreneurship as a career after completion of their education (Sieger, Fueglistaller, & Zellweger, 2011). A study

conducted by Iftikhar (2016) has cited that Pakistan's TEA (Total Entrepreneurship Activity) rate is quite low i.e. 9% as compared to other countries in the region and further discussed that entrepreneurship is not being motivated in knowledge-driven and formal sectors. Another study has shown that the cause of the rapid development of developed countries is the growth of entrepreneurship and Small and Medium Enterprises (SMEs) (Alam, 2011). The government of Pakistan has started taking measures to ensure the development of SMEs with the aim to fasten economic growth and to facilitate decrease in unemployment and poverty (Syed, Ahmadani, Shaikh, & Shaikh, 2012). Entrepreneurship is gradually gaining importance and Higher Education Commission (HEC) is working in this area by launching various courses and programs that will develop creative skills in the students while they are studying. Entrepreneurship has been introduced as a subject from graduation level to post graduation level. Moreover, Business Incubation Centers (BICs) are formed by HEC in universities that will promote entrepreneurship by funding new ventures and by providing guidelines to potential entrepreneurs (Rehman, 2006).

In the modern era, entrepreneurship is not a limited area as it has extended its links to IT and is now connected to mobile phones and laptops via applications, to the World Wide Web (www) and the economy of knowledge (Özbilgin, 2010). Cardullo (1999) has introduced a new term 'technopreneurs' or 'netpreneurs' for entrepreneurs who are using technology to cater and expand their customer base. One of the studies has specified the characteristics of a technopreneur as the one who has technopreneurship skills and is eager to expand business by the use of modern technology, build innovative products or services, and sell them to the market (Velikova, Kohler, & Gerten, 2014). Studies have defined technopreneurship as a course of amalgamation of technology intelligence with entrepreneurial skill sets (Selvarani & Venusamy, 2015). It is said that the development of an economy depends on the development of entrepreneurship, and the development of entrepreneurship depends on the development of technology (Okorie, Kwa, Olusunle, Akinyanmi, & Momoh, 2014). Özbilgin (2010) mentioned that grouping entrepreneurship dexterity with technology produces technopreneurs who use technology in the foundation of their business model. One of the reasons for expansion in technopreneurship field is that a person can start his venture in less capital by aligning it with IT. For developing countries like Pakistan, it is a need of the hour to produce more technopreneurs who can work for the betterment of the economy by starting their ventures and creating jobs even with less capital. Youth is the backbone of every nation and it needs to be guided correctly in their career choices to strengthen the economy of the country. The young generation should be trained at their educational levels to help them enhance their technopreneurial skills so they can use them later in their business. Nations striving for prosperity and growth have to go an extra mile for investing in their young generation that will later pay them off by adding their share in the GDP and economic stability. Entrepreneurship acts as a base that strengthens different sectors of the nation including technology and industry that ultimately overlays a path for the economic development of the country.

Technopreneurship is a rising trend in which various theorists, practitioners and industrialists are taking an interest. Technopreneurship is the hub of advancement that will lead the new technological and industrial revolution as the world is transforming into a global village and challenges are getting out of the geographical boundaries. For coping up with these challenges, one has to be proactive in its approach and technopreneurship can serve the purpose by creating opportunities for investment and employment hence strengthening the economic structure of the country. As proposed by Abbas (2018), a business that involves technology has no geographical limits and is a field where one can start with minimal capital, however can yield higher level of profits due to large market coverage (Özbilgin, 2010). Due to increasing interest in technopreneurship, efforts have started in Pakistan as well but presently this field is under-acknowledged due to various factors that might be at personal, societal or governmental levels. This study will identify the reasons why technopreneurship is facing slow growth in Pakistan by taking stance from real-life technopreneurs who are working in the field.

Literature Review

Entrepreneurship

Term entrepreneurship originated from the French language that means to commit or obligate (Kirzner, 1979; Schumpeter, 1983). A study by Amiri & Marimaei (2012) stated that as human needs started to evolve from food, clothing, water, and security to communication and employment; entrepreneurship was added at the same time. It was understood by human beings that they cannot survive alone and they need other human beings to depend for their survival. Entrepreneurship was added when people realized that they need people and markets to whom they can sell their products and services to earn a livelihood, while at the same time making goods

to cater the needs of people at large. This is how the cycle of society runs. There are different definitions of entrepreneurship in the literature that got refined and modified with the span of time. As cited by Egai (2008), Peter and Clark summed up entrepreneurship in 1996 as an act of starting a new business with the purpose of provision of innovative products and services while focusing on the present and future instead of considering the past.

United Nations Industrial Development Organization (UNIDO) also defined the term entrepreneurship in the late 1990s as creation of a new venture or transformation of an existing venture into a new business model that will rapid the development and growth of the business (UNIDO, 1999)¹. Later on, the notion of innovation was added to the definition of entrepreneurship by Schumpeter (2000).

Elements of Entrepreneurship Development

Different elements make entrepreneurship development possible that differs from nation to nation, society to society and industry to industry. According to Azu (2014), they are four in number.

Sustainable Enterprise. It is related to creating and developing SMEs on the small and the industrial level to meet the needs of the population between the ages of 18 to 65 (Azu, 2014). Nowadays, population explosion is getting serious in many developing countries and to meet the needs of a large population, SMEs are formed. However, SMEs are facing a lot of pressure to create wealth and employment opportunities (Noorderhaven, van Stel, Thurik, & Wennekers, 2005).

Sociopreneurship. Also known as social entrepreneurship (Azu, 2014), it is not primarily destined to earn profit. The main purpose of sociopreneurship is the welfare of society in different ways. Profit is generated to donate it to the needy patch of society who might be facing problems due to natural calamity or any societal issues (Drayton, 2002).

Intrapreneurship. Intrapreneurship is a term that defines the inner culture or orientation of entrepreneurship or enterprise (Encarta, 2009). It includes entrepreneurship within a company or industry in which new products with innovative features are introduced in the existing business to attract a wide range of customers (Antoncic & Hisrich, 2001).

Technopreneurship. Technopreneurship forms the modern type of entrepreneurship. In technopreneurship, business operations are largely dependent on the technology factor to modernize the products and services provided (Velikova et al., 2014).

Technopreneurship

It is a new field of entrepreneurship in which business activities are paired up with technology to achieve maximum business gains. It undergoes discovering the latest technologies to use in business operations either to widen the market coverage or to enhance profits. Various terms for technopreneurship has been used like “high-tech ventures”, “technology based enterprises”, “technology entrepreneurship” etc. (Dahlstrand, 1999; Florida & Kenney, 1988; Kakati, 2003; Oakey, 2003; Thérin, 2007; Yli-Renko, Autio, & Tontti, 2002). In this study, the term technopreneurship is used throughout. The concept arose in 1983 by some Singaporean entrepreneurs who merged technology with business to utilize their skills to the fullest (Jolly, 1997). In the early 21st century, the internet started getting fame and many people were fascinated to use it for a productive purpose in their businesses. After that, technology got more value when paired with the internet (Hoque, Awang, & Siddiqui, 2017). Technopreneurship started in the 1990s in USA and UK and then moved towards Malaysia, Iran, and Philippines where it was introduced as a subject in the universities (Paramasivan & Selladurai, 2017). When it comes to Pakistan, it can be said that it is still a new concept as very few technopreneurs can be found in Pakistan (Abbas, 2018). Talking at the global level, it can be said that this concept is in the early stages but an upsurge of ICT resulted in increased interest in this field as can be seen that many apps like Uber, Careem, Facebook, Snapchat, and Amazon, etc. are working globally and are part of technopreneurial ideas (Foo & Foo, 2000; Stone, 2017; Sussan & Acs, 2017). However, according to “Anthropological Entrepreneurship Theory”, cultural and social environment influence the behaviour of individuals to initiate a venture (Baskerville, 2003). It direct towards the social, political, ecological, economic and ethnic complexities in a cultural setting (Mitchell et al., 2002). Due to the differences in the national context, theorists believe that entrepreneurship develop in different time frames across different countries (Verheul, Wennekers, Audretsch, & Thurik, 2001).

¹ From UNIDO. (1999). www.unido.org

The Context of Pakistan

Pakistan came into being in 1947 and soon after separation from India, Pakistan had to face several crises and problems. As the years passed, democratic and military governments came and went trying to stabilize the economy (Haque, 2007). Till the 1960s, Pakistan was facing terrible issues like high number of imports, capital intensive policies, and low productivity leading to the nationalization of major assets of Pakistan. It was later on corrected by denationalization policies in the 1980s and 1990s and large scale industries started getting more consideration (Fayyaz, Mian, & Khan, 2009; Hoor-Ul-Ain & Hasan, 2014). This kind of unpredictable culture in Pakistan makes it tough for people to think about becoming an entrepreneur and taking risks. This was the grey area for which the government did not take notice (Haque, 2007). The creation and development of SMEs was always ignored by the government till 1998 when government made SMEDA (Small and Medium Enterprise Development Authority) for the former purpose (Chemin, 2010; Zaman, 2013). The other issue is the lack of employment opportunities for the people of Pakistan as universities are creating degree holders but the market has lesser number of jobs to accommodate passing graduates (Hameed & Irfan, 2019). The last 10 years' average unemployment rate as mentioned by Pakistan Bureau of Statistics (2019) was 5.7% and is on the rising trend progressively. In this scenario, the only solution is to train the youth with entrepreneurial skills so that the problem of unemployment, poverty and unstable economy can be improved (Sarfraz & Qureshi, 2012).

In the present era, the Pakistani government has started giving importance to the combination of entrepreneurship and technology and has started making policies in favor of technopreneurs. Almost two-third of the Pakistani population consists of the youth. Training and awareness programs have now started to educate youth on basic skills of technopreneurship (Saadat, Muffatto, & Shumaila, 2014). HEC is also playing its role in this regard by constraining universities to make their incubation centers to promote an entrepreneurial mindset.

Now coming towards the main objective of the study which is to identify the reasons for low technopreneurial activities in Pakistan, many authors have indicated that there is a backward educational system that is slowing the pace of technopreneurship development. Graduates lack practical knowledge and the exams are based on cramming due to which even engineers and tech graduates do not know how to operate technology and use it productively. As stated by Khan (2016), on the scale of technological readiness and acceptability, Pakistan falls on the last number in all South Asian countries. Another factor identified by Kamal (1997) and Rehman (2012) is the cultural impact or societal pressure that does not let women work. Especially in Pakistan, most of the entrepreneurs are men and women are seen to be less active (Raheem, Baloch, & Shah, 2019). According to Kaburi, Mobegi, Kombo, Omari, and Sewe (2012), there are ambiguous prospects for graduates of developing countries and there is a difference in the career choices that are expected by parents and what their children want to adopt as a profession. In many cases, parents win and the children quit their ambitious career choices. It makes the development of technopreneurship highly dependent on the mindsets of the society and parents in developing countries (Kaburi et al., 2012). In this study, we have tried to find and answer the question of low development rate of technopreneurship in Pakistan.

Research Methodology

This research study is conducted with an interpretive paradigm to answer the question of low development of technopreneurship in Pakistan as it takes the viewpoint of technopreneurs regarding opportunities and impediments in the way of technopreneurship development. The population of the study constitutes all the technopreneurs working in Pakistan who have obtained a degree in any discipline and have taken the assistance of any BIC in their initial stages of business. The researcher took Punjab province of Pakistan as a sample in which 80% of the business activities of the country take place (Haque, 2007). Punjab is considered the hub of business activities and is financially and economically the strongest province of Pakistan with its stock exchange being the second largest in Pakistan (Mian, Corona, & Doutriaux, 2010).

Purposive and snowball sampling techniques were used for data collection. 15 in-depth semi-structured interviews were conducted with a preplanned interview guide having ten open-ended questions. Those technopreneurs were considered for the study who were running their startups for at least three months. The responses were recorded electronically to avoid missing any important points. The role of the researcher was just as an observer who noted the points given by interviewees with least interference.

Data Analysis and Results

Thematic analysis was done on the data collected through interviews. The data collected was transcribed, coded and then categorized to originate meaningful themes and sub-themes. The results of the study were explained in the light of themes and sub-themes constituting reasons of slow penetration and development of technopreneurship in Pakistan.

Table 1. *Themes and Sub-themes of Study*

Themes of Study	Sub-themes
Nominal Role of Educational Institutions	Courses Lacking the Essence of Practicality Lack of Trained and In-Field Faculty. Obsolete Syllabus
Negligence on Governmental Level	Outdated Educational Policies Bad Governance Lack of Access to Professional Leadership and Working Platforms Red-Tapism Absence of PayPal Least Development Programs in Rural Areas
Naysayer's Stigma and Cultural Impediments	Lack of Societal Support Lack of Awareness Less Acceptability for IT Related Businesses

Theme 1: Nominal Role of Educational Institutions

Educational institutions in any country play a vital role in the development or restriction of any new phenomenon or trend. Kiyani (2017) mentions that entrepreneurship education can considerably reduce barriers to entrepreneurship achievement. Many of the respondents were of the view that educational institutions need to be more vigilant for the promotion of technopreneurship in Pakistan. The following sub-themes will describe this theme in detail.

Courses Lacking the Essence of Practicality. While conducting interviews, many respondents said that the courses regarding entrepreneurship and IT are taught in a purely theoretical way adding no practical value to their skill set that demands improvement of teaching methodologies. As said by a respondent:

The culture in educational institutes of Pakistan is purely based on teaching theory. Only a few of them touches on practical knowledge. We study theories in our institutes about how things work but we do not know how to apply it practically.

Institutions need to revise their coursework and curriculum of entrepreneurship and IT subjects in a way that it might help the students to experience a real-life situation in the business. It will also develop confidence and problem-solving skills. Another respondent added, "The main problem in our educational sector is that they do not provide practical exposure. A student completes his whole degree but after graduation, he has no idea what he has to do."

It was pointed out by many respondents that educational institutes are developing a job-seeking mindset of students and are not preparing the students to take risks and go out of the box. These subjects are needed to be added with more practical exposure to allow students to make business plans and start their small businesses at the educational level. In this way, they would be able apply the subject's learning practically.

Lack of Trained and In-Field Faculty. The other concern that was raised is the lack of faculty who are working as technopreneurs. PhD teachers are teaching in universities for years having little to no experience in the field. Instead of hiring those teachers for this practical subject, universities should hire technopreneurs who can give real-life references to the students to understand the possible crisis and issues along with their expected solutions so that students could relate in-field situations to the subject matter they have studied. In the words of a respondent, "Educational institutes have teachers that have never been through entrepreneurship. Entrepreneurship course is taught by PhD instructors, not entrepreneurs. This places the decision of potential entrepreneurs in the hands of those who are not entrepreneurs themselves."

Obsolete Syllabus. Institutions are having syllabus and subjects in degrees that are almost three decades old. There are no improvements made in the current syllabus according to

the changing trends around the globe. Similarly, the subject of entrepreneurship is also taught traditionally in which the cramming capacity of students is tested and marked accordingly. Most universities are not willing to change their curriculum and mode of teaching. Many respondents said that businesses nowadays are facing unique problems that require modern solutions but our educational policies are not oriented to teach us real ground problems. In the words of a respondent, "The theory that is taught to us in our institutes is very outdated to be honest. The things they teach us won't be found anywhere in the field."

Similarly with IT subjects and courses being taught, the course outline is not updated regularly. IT is a field that face massive advancements regularly and there is no point in teaching things that have outdated already. It diminishes the purpose of the subject for which they are taught. When asked by a respondent regarding his view, he said:

What I studied was not of much use in the field of IT for me. IT skills I used for my venture were my learnings I grasped searching from Google, learned few things from YouTube tutorials and by reading research papers every day.

There is a need to develop a research culture and proper feedback system in the education system that will surely refine the curriculums and syllabi at the university level. It will also develop keen observance and analytical skills in students that will later prove helpful in the practical field.

Outdated Education Policies. Results of the study show that the educational policies of Pakistan are outdated and are not playing an expected strong role in the development of technopreneurship. Participants of the study were of the view that the education system is the biggest source that can create technopreneurs and provide to the nation but unfortunately, educational policies are not supportive. This is the reason other countries are producing quality graduates as compared to Pakistan. As said by a respondent in the interview, "Educational issues are needed to be resolved. It requires policy amendment from the root basic level i.e. primary level to higher education level. Entrepreneurship and IT should be taught at all levels."

Theme 2: Negligence on Governmental Level

One of the major themes of the study is negligence and imprudence on the governmental level in Pakistan. The government of a country acts as a backbone for strengthening the economy, socio-political culture and human capital and if the government is negligent on key issues then countries do face major losses (Hoor-Ul-Ain & Hasan, 2014). Findings of the study state that there is a lack of government assistance for the development of technopreneurial culture in Pakistan. Following are the sub-themes that will explain it in more detail.

Bad Governance. The government of Pakistan is lacking to strategize policies for a favorable situation. There is a need to improve and modify the financial management system so that it creates an investment-friendly environment in which national and international investors are ready to invest. It is due to the poor governance of Pakistan that nobody thinks of investing in a business. As said by a respondent, "Students have ideas and they do work hard but the challenge is at the government level."

Most of the participants compared Pakistani governance with that of India because India is also facing the same dilemma of struggling to overcome poverty and unemployment issues but it was said by a respondent that India is doing much better while Pakistan's government is unable to identify and solve the policy problems. In the words of an interviewee:

Our government do not take initiatives. I give you an example, in the 1980s and 1990s in the era of IT revolution when Windows 3.80 came; there was a list of Indians who were developers. Those developers are CEO of big companies today e.g. CEO of Google is Indian and he was included in that list at that time. So, how were they supported? The city of Ahmedabad was vacated back in those times and fresh graduates of IT were placed free of cost in that city. They didn't pay rents or utility bills and the internet was free of cost too. ... In Ahmedabad, people came from across the world knowing that they need not spend money except for their food and clothing. India gained too much talent in the field of IT back then. In the next chapter, India started planting their people in HR of big companies and when the people went into HR, they started preferring Indians. Those Indians who were placed on their starting jobs, gradually started getting promoted to the higher management and then higher management to CEOs. Those CEOs earn money and send it back to their country.

This statement points out the governance long-term planning that benefits the nation in the long run. Pakistan need to work on its long-term plans by promoting technopreneurship today that will return profit to the country in the coming future.

Lack of Access to Professional Leadership and Working Platforms. Every country is a part of global competition and few developed nations are leading the competition forming monopolistic control over others. In this modern world, governments need to be proactive to lead the potential and actual technopreneurs of the country. The Pakistani government is lagging to provide professional leadership. As stated by a participant, “There is no such body regulated by the government of Pakistan to tell and guide entrepreneurs how to make things work and be on the right pathway.”

Another issue was the lack of access to international platforms to show technopreneurial talent and skills. A lot of Pakistani talent is not getting support to be recognized worldwide. In international forums, many technopreneurs and investors are invited globally but ignorance on this side is causing serious damage to economic development as responded by a person while interviewing:

Government should take high potential teams on international exhibitions so that they get international exposure and people get to know that Pakistani technopreneurs are doing something. People who have interesting ideas cannot access the international platforms because our government is not willing to invest money in taking us to international fairs or exhibitions. This is costly but it can give much in return.

Red-Tapism. Another issue faced by many potential and actual technopreneurs is the over-formalization of procedures to start one’s own business. The bureaucratic set-up of government is making it difficult for the layman to operate his/her venture. The rules, regulations and formalities are long and tiring. Once these formalities are minimized, it can motivate many potential technopreneurs to start and develop their businesses. As said by an interviewee, “Problem such as formalization to many bureaucratic rules, regulations and a lot of hierarchy wastes our time and effort which we could have spent in a much productive manner.”

It was added by many technopreneurs that the decentralization of lower-level governmental procedures and activities can make things convenient for budding and existing technopreneurs.

Least Development Programs in Rural Areas. The Pakistani government is more focused on the big cities’ development and progress but rural areas are the grey areas that need additional attention. In rural areas of Pakistan, one cannot think of starting his/her own venture due to lack of government incentives, subsidies and development programs. Technopreneurs need capital, technology, governmental support and guidelines to start their businesses that are not available in rural areas. As explained by a respondent:

If we see the scenario in big cities of Pakistan like Lahore or Karachi, it is satisfactory and the things are going well. In other cities, there aren’t much facilities related to promoting technopreneurship in educational institutes or have established incubation centers.

Many respondents were of the view that government has no separate policies for small and rural areas that is why there is a very small ratio of technopreneurs coming from rural areas. Government can introduce replica BICs and development programs in small areas to raise awareness and motivation for the youth. In reality, the government has negligent behavior towards the development of rural areas as compared to urban areas.

Absence of PayPal. PayPal is being used as a standard platform to proceed with payments worldwide. However, this service is not available in Pakistan. Almost every technopreneur demanded that there is a high need to bring PayPal to Pakistan as they face several challenges when it comes to handling payments. PayPal can provide swift inflow and outflow of money and is trusted by customers worldwide as it has an established image to be secure. This service has the potential to bring a lot of foreign exchange to the country. The availability of PayPal is an issue that can only be solved through governmental involvement. If solved timely, it can pave the way to rapid economic growth.

Theme 3: Naysayer’s Stigma and Cultural Impediments

Naysayer’s stigma is defined as the negative values and thoughts of people or culture that emits negative vibes. In Pakistani society, one of the biggest reasons for slow penetration of

technopreneurship is the negative attitude of society towards people who want to initiate or innovate something. A positive attitude of society and culture can motivate any person to develop and progress and vice versa. Few cultural impediments that the phenomenon of technopreneurship has to face in Pakistan are explained below.

Lack of Societal Support. As said by Okorie et al. (2014) creativity of a person enhances as s/he gets more positive vibes from society to speak, communicate, innovate, take risk, and generate creative ideas. Youth is facing negative attitudes of society when it comes to starting a new business. The mindset of people is quite job-oriented and families expect their children to get a job and start earning a specific amount every month. Parents are reluctant to invest and allow their kids to go for business and do whatever they aspire for. Rather they start pressurizing kids to support their family immediately after graduation by getting a good job and earning a handful amount of money. As said by a participant, "Most of the parents are not opinion leaders, they are commanders."

Pakistan is a patriarchal society in which females are not given the right to own and start a business. On average, six women participate in entrepreneurship in comparison to two males all across the world whereas only two females are reported to be participating in entrepreneurship for every ten males in Pakistan (Sarfraz & Qureshi, 2012). This mindset needs to be changed for the progression of the economy. Women have many creative ideas but they are neither supported nor motivated to be technopreneurs. It is due to the innate cultural norms that women in Pakistan do not avail same opportunities as men (Abrar, Gohar, & Shoaib, 2018). Moreover, females face the dilemma of work-life balance more than males so it has become convenient for them to go for a job rather than a full-time business.

Many respondents of the study complained that Pakistani society is high rated on risk avoidance ratio and it completely discourages risks. Parents usually reject their children's intention to do business because a higher risk is involved in the business. It influences people to be less confident and in fear of losing their investments, they usually ignore the idea of becoming technopreneurs and just go with the flow.

Lack of Awareness. In developing countries like Pakistan, the biggest hindrance in the way of technopreneurship development is the lack of awareness. The whole world is exploring new fields of technopreneurship but the society of Pakistan is still in the phase of ignorance. There is a difference between business, entrepreneurship and technopreneurship but unfortunately only a few people know the difference and are involved in these activities. As narrated by a respondent, "People do not know what is entrepreneurship or technopreneurship. They think it is something out of this world."

Respondents said that if people have unique ideas but they lack awareness regarding technopreneurship, BICs and tech parks then it will be difficult for them to get proper guidelines for their career and they will end giving up their ideas. As added by a respondent, "Our society does not understand technical businesses and is not even ready to understand. When I have to tell people about my business, the only thing they can grasp is 'computer job'. He further added, "We know there are incubation centers and other facilities but not everyone knows about it."

Awareness campaigns can be started by the government to raise awareness through social, print and digital media platforms that will tell people about the concept and perks of technopreneurship. Moreover, success stories of technopreneurs can be shared with the public to promote technopreneurial mindsets.

Less Acceptability for IT Related Businesses. Pakistan is a country where every idea is not considered as suitable and acceptable because people are not ready for any kind of change whether in cultural norms or in career choices. Technopreneurs mentioned that when they tell about their business to society, they show less interest in it. It strengthens the naysayer's stigma and causes the death of many creative ideas. As said by a technopreneur:

The current scenario is really bad because first there is less acceptability of our society regarding such startups. Acceptability of people regarding usage of few startup services is less e.g. when Uber was new here, people were reluctant to use it but once they start using it, they will adapt it soon and turn into their regular users.

Many developing countries like Pakistan have strong cultural and societal bindings that are not welcoming for any phenomenon that is new to the society. Similarly, technopreneurship development requires a high acceptability rate from the people of Pakistan to tighten its root in society.

Discussion

Why the phenomenon of technopreneurship is taking time to penetrate in the culture of Pakistan? One reason that was pointed out by participants was the nominal role of educational institutes that is supposed to support the cultural and career choice changes. Educational institutes are promoting cramming type studies with no practical outlook due to which graduates lack required leadership and decision making skills and are unable to start their own businesses. Students are taught to get good grades and later a good job but nobody is thinking to go out of the box due to the traditional syllabus and outdated education policies. The current educational policies have nothing to do with the changing settings and trends of the globe. The higher education institutes are inattentive to technological innovations, globalization, and waves of industrial developments due to which the quality of education is declining (Parveen, Rashid, Iqbal, & Khan, 2011). Rai (2018) also explains that the traditional educational policies in South Asian countries have not turned out to be supportive in creating an action-oriented approach for entrepreneurship. Kolvereid and Moen (1997) proposed that it is dependent on the educational institutions how they amend their policies to update their curriculums and syllabi to offer student development programs to train them with the latest in-demand skills in the field of entrepreneurship. It is the duty of educational institutes to develop the required skills in their graduates so that they can take decisions on their own and pursue career choices.

Another identified reason was the lack of government support in all phases of technopreneurship from starting to progressing and developing one's own venture. The government is not assisting startups and it lacks to formulate conducive policies and procedures that support technopreneurship. Bad governance and red-tapism behavior of government is creating problems in the way of development of technopreneurship. There are lengthy and tiring procedures for starting a venture due to which many people quit in their early stages. Moreover, there are no development programs introduced by government in small and rural areas where people have more potential to do something for their nation and families. Government is aware of all these troubles but due to lack of professional leadership, it is still not able to solve these problems.

The culture of a specific society is deeply underpinned in defining how people make their life choices. Pakistani society is quite non-cooperative and stigmatized when it comes to starting own business and taking risks. The society of Pakistan put forth less influence for starting entrepreneurial activities because such intentions are not embedded in the culture (Shah, Anwar & Khan, 2018). Parents have made their mind that the meaning of success is to get a government job or a job in any multinational which will pay a handful and fixed amount of money every month. The definition of a person's success is often linked to becoming a doctor or an engineer. This passive role of society demotes many people who have creative ideas for business but are pressurized to follow what the family expects. This is indeed an economic demise when people have the potential to generate jobs and revenue for the country through their business ideas but have to leave because it requires them to fight with their social ties.

Another reason for low rate of development of technopreneurship in Pakistan is the lack of awareness and acceptance for IT-related businesses. Many respondents answered that there is a need to create awareness and development campaigns in Pakistan to let people know of the potential technopreneurship can provide, what it requires to be a technopreneur, and how one can be successful in achievement. People of Pakistan lack long-term planning and need guidelines for starting their businesses. The reason for the high rate of unemployment is also the same that people have degrees but do not know what to do to start their business and which authority or institute is needed to be accessed to seek assistance. The findings of this study can be bridged with the anthropological entrepreneurship theory to understand the social and cultural complications due to which the phenomenon of technopreneurship is unable to pick a pace and grow in Pakistan.

Conclusion and Practical Implications

Conclusion

This study aimed to identify the reasons for low penetration of technopreneurship in the society of Pakistan. The results of the study are divided into three themes and their respective sub-themes. The first theme discusses the nominal role of educational institutes that is hindering the development of technopreneurship due to the absence of updated educational policies, curriculum and practical subjects. The institutes are also behind in staffing faculty who possess the professional background to teach essence of those practical subjects. The second theme discusses the need for governmental support for accelerating the development process of

technopreneurship in Pakistan by providing strong and professional leadership, introducing development programs in rural areas and minimizing the procedural formalities for technopreneurs. The third theme discusses the stigmatic and passive role of society towards technopreneurship development that negatively impacts individuals to start their own ventures. It also talks about the lack of awareness regarding technopreneurship and less acceptance for IT-related businesses.

Practical Implications

The findings of the study can help educational institutes understand the need for upgrading curriculum and hiring professional and real-life technopreneurs to teach related subjects. It can help governmental institutes make new policies for starting development programs and replica BICs in the small and rural areas of Pakistan. It can help local citizens understand the importance of the concept of technopreneurship and its practical gains. It might help in changing the mindsets of society to show support for people who start their own ventures. It might also raise the importance and promotion of IT-related businesses and encourage people to adopt it as a career profession in Pakistan. It can help potential technopreneurs know what kind of skills they need to possess and the challenges they need to overcome in order to advance.

Limitation and Future Directions

Data was collected from the technopreneurs of Punjab only due to time and financial constraints. Other researchers can take the perspective of educational institutes and BICs as well to get detailed findings. In future, other provinces and cities can also be considered by researchers to get wide-ranging results regarding the rate of technopreneurship development in Pakistan.

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