

The Role of Internship and Business Incubation Programs in Forming Entrepreneurial Intentions: an Empirical Analysis from Pakistan

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Abstract

Purpose: Entrepreneurship is a vital tool for the economic development of any country. As a field of research, entrepreneurship has become a diversified area of study. A plethora of studies appeared that investigate the antecedents of entrepreneurial intention, most of them focus on personality traits and other psychological factors. However, the studies focus less on practical entrepreneurial education such as internship and business incubation. Thus, the current study seeks to fill this gap by empirically investigating the impact of business incubators and internship programs on student's entrepreneurial intention in the Pakistani context.

Methodology: The authors collected data through a structured questionnaire from students and ran partial least square structural equation modeling technique by SmartPLS software.

Findings: The results show that business incubators and internship programs have a strong and positive statistically significant impact on entrepreneurial intentions.

Implication: The current study can help policy-makers get a better insight on entrepreneurship so as to improve its innovation, proactivity, and risk-taking ability and how these factors can amend the lack of entrepreneurial awareness among business students.

Keywords: entrepreneurial intentions, internship, business incubators

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Background

The current study is conducted in Pakistan, which is a developing country and the sixth largest country in terms of population that shares 2.55 percent of the total population of the world (DHS, 2019). Noteworthy, the importance of Pakistan's population lies in the fact that its core portion is young. Youth under the age of 30 comprises 60% of Pakistan's population (Asma, 2018). Currently, Pakistan has the largest young population ever recorded in Pakistan's history (NHDR, 2016).

From the total population report, 64% of the whole population is less than 30 years old, while 29% of this number comprises people between 15–29 (NHDR, 2016). However, the larger part of the country's population is poor and unemployed, as it lives on an earning of less than \$1.25 per day, which showcases Pakistan's increased poverty situation. According to an economic survey, 24.3% of Pakistani people live below the poverty line. Some types of unemployment faced by Pakistan include technical, cyclic, seasonal, and fundamental unemployment. The most revolting is that this situation exacerbates every year and – in the long run – will prove to be a menace for the economy of Pakistan (Gul, Zaman, Khan and Ahmad, 2012). The number of labor force gradually increases, and the increase in unemployment still continues; therefore, new employment opportunities should also be created for the labor force (ShuHong and Zia-ud-Din, 2017).

The rise in unemployment occurs the same among the professional degree holders and the labor force. The official statistics on Pakistan show that it has a labor force input rate of 54.4%. Conferring to these statistics, 3.7 million individuals were unemployed in 2017–2018 (Pakistan Bureau of Statistics, 2018). One of the most prevalent obstructions in the way of viable and persistent economic growth is joblessness. In Pakistan, joblessness is one of the most significant economic problems (Waqas and Hyder, 2012).

To have a stable economy, state administration must encourage entrepreneurship (Kongolo, 2010). The contribution of entrepreneurship to the economy has attracted the interest of policymakers from both developing and developed economies (Krasniqi, 2007). The literature recommends that a substantial rate of economic growth should be connected to entrepreneurs that utilize national investments in knowledge creation (Valliere and Peterson, 2009; Gallouj and Savona, 2009; Kennedy and Fiss, 2013). Entrepreneurship is a source of innovation, job creation, and economic growth, hence it is pivotal to attract the young and educated to become entrepreneurs (Farrukh et al., 2018; Riaz, Farrukh, Rehman and Ishaque, 2016).

In the entrepreneurship domain, a crucial attribute that needs to be entrenched in every new start-up is entrepreneurial intention (Farrukh et al., 2018; Wach, Wojciechowski, 2016). Entrepreneurial intention involves an attitudinal onus of individuals to initiate a fresh business start-up (Krueger and Carsrud, 1993). Entrepreneurship is even more relevant when the supply of jobs in the labor market shrinks. Knowledge about entrepreneurship will be very useful when fresh graduates cannot find their ideal jobs or retrench when the economy slows down, forcing some fresh graduates to turn to entrepreneurship (Looi et al., 2015).

Moreover, Gorman, Hanlon and King (1997) claim that student predisposition toward entrepreneurship is an imperative framework for the formation of a new business (Sieger, Fueglistaller and Zellweger, 2014). The attitude, behavior, and entrepreneurial indulgence of students can foster the intention and desire to initiate new business endeavors in the future (Indarti, Rostiani and Nastiti, 2016). Students educated at college are in the offing to be successful entrepreneur initiators (Nastiti, Indarti and Rostiani, 2010). Therefore, entrepreneurial intention among students is a dynamic and vibrant area that needs to be further explored to grasp and appreciate the technique for instituting new businesses.

The inclination toward entrepreneurial behavior may be influenced by some aspects, such as internship (Yi, 2018) and business incubators (Giordano Martínez et al., 2018). In expressions of the internship programs, certain academicians have pointed out that the recompenses provided by this program are beneficial to all parties (Gault, Redington and Schlager, 2000). Furthermore, internship programs play an evocatively imminent role in boosting the connection between classrooms and the professional world (Gault et al., 2000). Hite and Bellizzi (1986) point out that internship programs provide an opportunity to students to work with professional which might help students to explore and crystalize job interest and abilities.

Another education program recognized by several higher education institutions for fostering entrepreneurship is the business incubation program (Giordano Martínez et al., 2018). The existence of a business incubator at a higher education institution is highly necessary to support and assist civitas academic – primarily students who have a business – to be able to improve and develop their business. Besides, business incubators also serve to motivate potential new entrepreneurs and transform their business ideas into real businesses (Giordano Martínez et al., 2018).

Thus, the development of entrepreneurial intention among students appears to be a mutual task between students and education institute. Internship programs and

business incubators may well create a compound collective impact on the students' frame of mind and emotions, which will strengthen their entrepreneurial intent. Therefore, it is imperative to empirically investigate the relationship among internship, business incubator programs, and entrepreneurial intentions.

The below section of this paper discusses hypotheses development, then a research methods section follows that provides detailed information on sampling, measurement, and analysis procedures, only to end with a description of data analysis and results. The paper concludes with a discussion of the academic and practical implications of the study.

Hypothesis Development

Entrepreneurial Internship Program and Entrepreneurial Intention

Today, internship programs develop a focal trait of the educational curriculum in preparing university students for an entrepreneurial vocation (Gobelna and Dolot, 2018; Keat, Selvarajah and Meyer, 2011; Raymond, McNabb and Matthaehi, 1993). The entrepreneurial intention of university students with working experience is higher than the ones lacking experience. By attaining experience in the entrepreneurial world, students become more persuaded and better equipped to pact with entrepreneurship, since they are already conversant with the business environment (Yi, 2018). As mentioned by Kolvereid and Moen (1997), university graduates who chose entrepreneurship courses exhibit greater inclination toward becoming entrepreneurs compared to those who did not. Moreover, Frazier and Niehm (2006) revealed that students' major in university, an entrepreneur in the family and internship experience, influence entrepreneurial intention. In other words, graduates who completed their internship are more likely to choose an entrepreneurial career compared to those who did not complete or join any internship programs. These findings emphasize the importance of curriculum development by universities to implement business training across all university courses and disciplines. Correspondingly, these findings are in line with Frazier and Niehm (2006) who described that prior work experience in business influences the attitude toward entrepreneurship. The current study also indicates that the perceived desirability and feasibility of new venture creation increase in result of entrepreneurship education. Similarly, prior work experience in a family business also positively affects the perceived feasibility and desirability of new ventures.

Neill and Mulholland (2003) identify that internship engagement and work experience programs are vital as they prepare students to engage in real-world business trials and augment their entrepreneurial intention. Work-based learning in the form of intern-

ships is increasingly important for business schools as they compete for excellent students and simultaneously seek to establish strong relationships with leading companies (Gerken et al., 2015).

Launching multiple programs of entrepreneurship offers several paybacks not only for the universities but also for students (Dilts and Fowler, 1999; Hildebeitel et al., 2000). As stated by Hildebeitel et al. (2000), students who partook in entrepreneurial internship programs are disposed to demonstrate higher job satisfaction than those who have no experience in an internship program.

Strong internship experience of students engenders high self-efficacy and entrepreneurial learning effect (Kumar, 2012; Wilson et al., 2007; Yemini and Haddad, 2010). The socialization of entrepreneurial behaviors and feedback from work-integrated learning results in higher entrepreneurial intention. Entrepreneurial intention is positively related to students' internship norms and attitude. As derived from socialization theory, internship experiences significantly influence the formation of entrepreneurial intention (Kumar, 2012).

A recent study by (Yi, 2018) has shown that the higher the value of entrepreneurial internships, the greater the intention toward entrepreneurship. Therefore, universities must embolden their students to gain entrepreneurial experience in advance to being offered a qualification in entrepreneurship

The above literature illustrates that entrepreneurial internship programs have a direct influence on entrepreneurial intention among students. However, how far these skills have fortified students has not been satisfactorily investigated especially in Pakistani context.

The above discussion motivates us to postulate that,

H1: Entrepreneurial internship is positively related to entrepreneurial intention among business students in Pakistan.

Business Incubation Program and Entrepreneurial Intention

According to (Nelson and Monsen, 2014), only the classroom teaching is not enough for technology commercialization and successful university entrepreneurship, but a close linkage between business, science, and technology and the other parties is

necessary to understand the whole university entrepreneurial network. As per (Martínez et al., 2018) the business incubators (BI) provide a real platform to the young entrepreneurs from where they start their journey toward new venture creation, and further, it contributes to their firm's survival and growth. Beside the entrepreneurship education, business incubation centers perform a vital role in an entrepreneurial culture and the advancement of entrepreneurship in a nation (Martínez et al., 2018; Pauwels et al., 2016). Incubators ordinarily try to give a fostering setting (Boukamcha, 2015) and a protected atmosphere (Allen and Rahman, 1985) by effectively guaranteeing that start-up firms get assets, support, and backing (Vanderstraeten and Matthyssens, 2012).

Business incubators are the organizations that create supportive environment, conducive to the development of new ventures. BIs provide support throughout the business creation process (Albort-Morant and Oghazi, 2016; Mas-Verdú et al., 2015).

As a result, incubators can contribute to economic growth by boosting innovation and strengthening new entrepreneurial projects (Barbero et al., 2014).

Currently, many initiatives are underway to create university-affiliated innovation centers or business incubators aimed to help aspiring students to become entrepreneurs. It is yet to be seen whether these programs enable universities to function more effectively in promoting entrepreneurial intention among their graduates. Otuya et al., (2013) specified that the students who have exposure to entrepreneurship courses, comprising business development centers, have greater intents toward entrepreneurship than their equivalents who have no intention to attend entrepreneurship courses. Saeed, You-safzai, and Engelen (2014) illustrated that there are three components of a university's support for entrepreneurship i.e., educational support, concept development support, and business development support. Together with institutional support, all three components help to shape the students' entrepreneurial self-efficacy, and in turn, the entrepreneurial intention to start new ventures.

The literature above in association with the varied models shows that the facilities and the business incubation services offered by the universities may have an influence on the students' intention to become entrepreneurs. These incubation programs act as facilitators in the provision of infrastructure, networking, financial assistance, and opportunities. It is in this context that these incubation programs may develop an interest in the young graduates to become entrepreneurs. As such, this study proposes the second hypothesis of the research, which is mentioned below:

H2: Business incubation programs are positively related to entrepreneurial intention among business students in Pakistan.

Method and Measures

The current study adopted a quantitative approach and collected data with the help of a structured questionnaire. Table 1 shows the source of the questionnaire items.

Table 1. Sources of Questionnaire Items

Variable	Source
Entrepreneurial Internship Program	Waryszak, 1999
Business Incubation Centers	Struwig and Meru, 2011
Entrepreneurial Intentions	Liñán and Chen, 2009

Source: Developed for this Research.

This study is part of a research project focused on the entrepreneurial intention of Pakistani students. The data were collected from students who study in the six public sector universities located in Islamabad, Pakistan. We formally requested lecturers to approve the study and, after their approval, distributed the structured questionnaires among students. The data collection phase procured 979 usable questionnaires.

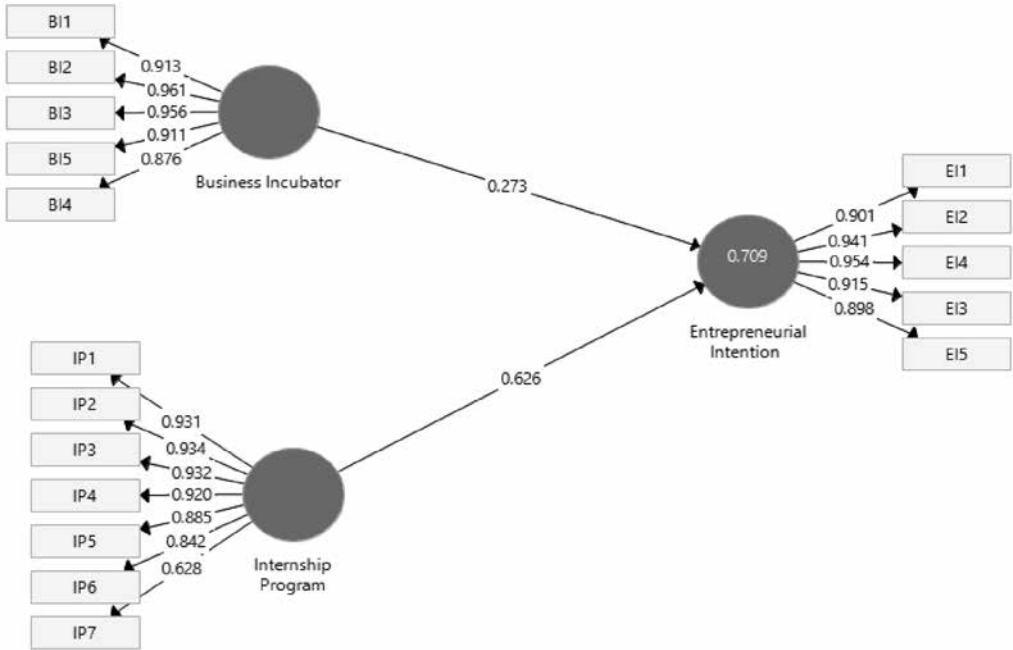
We used PLS SEM with the help of SmartPLS to test the hypotheses. This method was used extensively in previous studies (Farrukh et al., 2017; 2019; 2016). In terms of analysis, PLS-SEM is a two-step process. The first step evaluates the measurement model for reliability and validity of the constructs: it calculates the discriminant validity, convergent validity (AVE) and composite reliability (CR). The threshold values for CR and AVE are .70 and .50 respectively. To measure discriminant validity, we used Fornell and Larcker Criteria (Table 2). The results of the measurement model evaluations appear in Table 3. The next step performs the evaluation of the structural model: it checks the coefficient of determination (r squared) and the significance of path coefficients.

Table 2. Measurement Model Validity and Reliability

Latent variable	Factor Loading	Composite Reliability	AVE
Entrepreneurial intention		0.84	0.62
EI1	.901		
EI2	.941		
E3	.915		
EI4	.954		
EI5	.898		
Internship Program		0.82	0.55
IP1	.931		
IP2	.934		
IP3	.932		
IP5	.885		
IP6	.862		
IP4	.920		
IP7	.628		
Business Incubators		0.88	0.60
BI1	.913		
BI2	.961		
BI3	.956		
BI4	.911		
BI5	.876		

Source: Developed for this Research.

Figure 1. Measurement Model Results Generated by PLS SEM



Source: Developed for this Research.

Discriminant Validity

We measured discriminant validity (DV) with the help of Fornell Larcker Criteria. According to Fornell Larcker, the square root of AVE is compared with correlation among the constructs, as presented in Table 3. Moreover, the general rules by Fornell and Larcker (1981) suggest that the AVE’s square root should not surpass the correlations on the latent constructs.

Table 3. Fornell Larcker Criteria for Discriminant Validity

Variable	1	2	3
1. Entrepreneurial intention	0.78		
2. Internship Program	0.43	0.74	
3. Business Incubators	0.33	0.18	0.77

Correlations and square roots of AVE estimates in bold on the diagonal for all variables.

Source: Developed for this Research.

As indicated in Table 3, we compare the correlations on latent constructs with the square root of the average variances extracted (Chin, 1998). The table also indicates that each square root of the average variances extracted surpasses the correlation on the latent constructs. Hence, this suggests that adequate discriminant validity has been achieved.

Assessment of the Structural Model Significance

After establishing the reliability and validity of the measurement model, we evaluated the structural model. The current study used a method known as bootstrap resampling, based on 5,000 resamples, for assessing the significance of path coefficients (Hair Jr et al., 2014). We used R^2 to measure the model's predictive accuracy (Ang et al., 2015), but also to represent the percentage of the variance on dependent variables, explained by the independent variables from the model. The R^2 for this study is .709, which means 70.9% of variance in entrepreneurial intentions is caused by internship and business incubator programs. Figure 2 and Table 4 shows the results of bootstrapping along with the decisions implemented on each hypothesis.

Figure 2. Structural Model Results

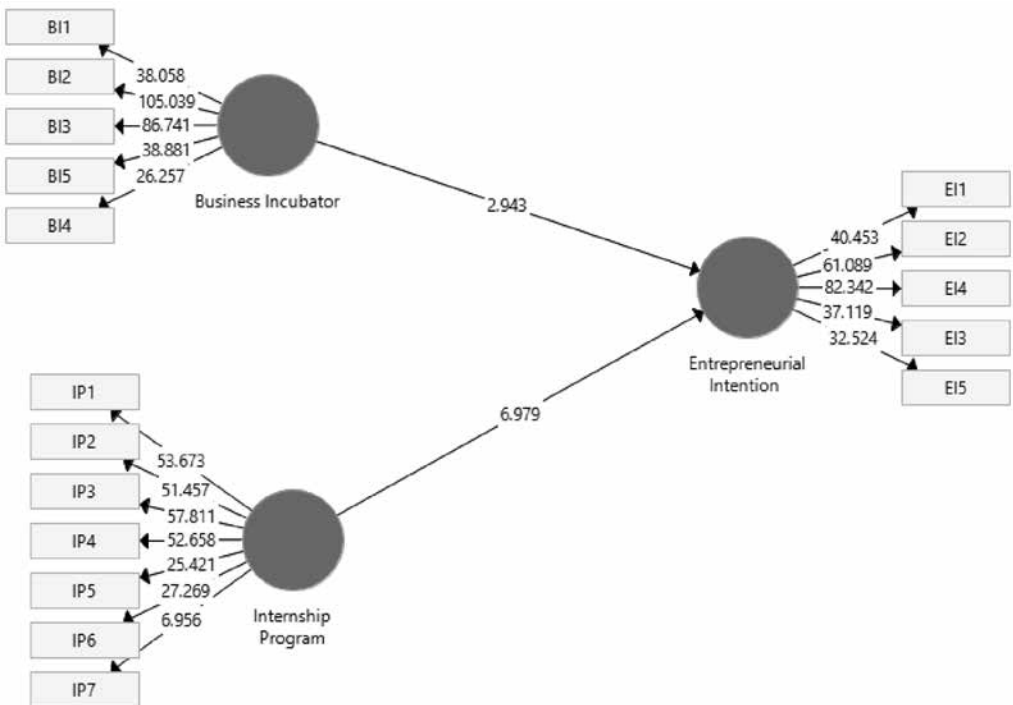


Table 4. Results of Hypothesis Testing with Bootstrapping

Path	Path coefficient	T Statistics	Decision
IP -> EI	0.626	6.979	Supported
BI -> EI	0.273	2.943	Supported

Source: Developed for this Research.

Discussion

The current study postulated that an entrepreneurial internship program is positively associated with entrepreneurial intention among business students in Pakistan. The empirical evidence from this study found the relationship between entrepreneurial internship program and entrepreneurial intention to be positive and significant.

These results are in line with some past studies (Fang, Chang, Ou and Chou, 2014; Kumar, 2012). These findings indicate that the more favorable the students' attitude is to participate in the entrepreneurial internship program, the better they will feel about their intention to start a business. Kolvereid and Moen (1997) supported this finding by affirming that university students who select entrepreneurship courses have a better tendency to become entrepreneurs. By obtaining experience in the entrepreneurial world, the students will be more inclined and ready to deal with entrepreneurship since they are already familiar with the business atmosphere (Cooper, Bottomley and Gordon, 2004). In addition to that (Frazier and Niehm, 2006) reinforced this finding when they quantified that students' major in university, family support of entrepreneurship and internship experience influence entrepreneurial intention. Internship plays a crucial part in filling the gap between career expectations developed in the classroom and the employment reality in the real world (Gault et al., 2000).

Based on the above discussion, it can be established that the entrepreneurial internship program is fundamental in fostering entrepreneurial intentions among students. Students who have done an internship are prospective to look constructively to entrepreneurship as a career choice than those who have not completed an internship.

The role played by the entrepreneurial internship program to inspire students to become entrepreneurs cannot be unheeded, particularly in the Pakistani context. Therefore, the presence of an entrepreneurial internship program must be promoted extensively to all students for them to better appreciate the welfares and purposes of this program.

This is because the students who enroll in the university and register into an entrepreneurial internship program do not have adequate information about how to become entrepreneurs. If a student does not have a family involved in business, it will be challenging for them to acquire business perspicacity. This internship program is the only way with which they can improve their entrepreneurial self-efficacy, entrepreneurial orientation and intention to become an entrepreneur. Therefore, the university should encourage their students to take the entrepreneurial internship program prior to being offered a qualification in entrepreneurship.

The second hypothesis of the study predicts that business incubation (BI) programs are positively related to the entrepreneurial intention of students and finds BI to have a positive significant relationship on the latter. This finding agrees with some past studies, namely Martínez et al. (2018) and Guerrero et al. (2017).

The primary role of BI is to support aspiring entrepreneurs by providing them with technical know-how, easily available starting capital, infrastructure, and expertise. The ability and creativity of the incubatee can be utilized by the incubator to promote the new enterprise, which benefits both parties (Kalimuthu, 2016). Numerous studies clearly show that BI programs significantly influence entrepreneurial intention, which indicates that the more favorable the students' attitude to participate in BI programs, the stronger their intention to start a business (Jansen et al.; 2015; Krabel et al., 2012). This variable acts as one of the major components to explain the experiential learning theory developed by Kolb (1984). Experiential learning theory emphasizes mentorship as the best assistance for students to obtain better experience in the field of entrepreneurship.

In such conditions, incubator staff needs to be well equipped and ready to train students to become real entrepreneurs once they graduate from universities by conducting regular workshops and trainings in entrepreneurship. These workshops should be conducted with students before their participation in entrepreneurship activities. After receiving directions, students may implement their skills in the real entrepreneurship world.

Implications of the Study

The study holds several implications: theoretical, managerial for universities, managerial for the general public, and managerial for governments.

Theoretical implication

This study empirically tests the direct effect of entrepreneurial internship (EI) and BI programs on student entrepreneurial intention. First, the interpretation of EI and its association in the setting of business learning institutions in Pakistan can be highlighted by the entrepreneurial intention predictor model. The outcomes generally agree with the assumptions of the literature review. Furthermore, the experimental learning theory gains support from the EI and BI programs, as these factors may show how to gain experience during entrepreneurship programs and, thus, improve one's courage to venture into business. Hence, EI and BI programs seem to support experiential learning theory. The results can help to develop the entrepreneurial intention of business students in Pakistan.

Practical Implications for Governments and Universities

The idea of teaching entrepreneurial education in the universities of Pakistan is new. That is the reason the greater part of the Pakistani universities are incapable to deliver students with adequate entrepreneurial awareness and skills. In addition, most of the educators in Pakistani universities concentrate more towards theories and contents of entrepreneurship as opposed to motivating students to approach some creative and innovative business plan. As indicated by Chang (2006), entrepreneurship teachers should teach pragmatic entrepreneurship instead of content teaching. Such teaching will not just vary from old fashioned methodologies but also motivate students to begin their entrepreneurial profession.

In an endeavor by the government to promote entrepreneurship by improving risk-taking ability, encouraging creativity and forward-looking, the study of this nature is important since it provides clear perceptions relating to entrepreneurship. It also shows how the mentioned factors can build up the lack of knowledge about entrepreneurship by business students. This may promote the emergence of more entrepreneurs from higher education institutions.

Innovation is very precisely related to business; once the number of entrepreneurs increases, it will increase the level of innovation. Innovation can improve the level of productivity and will reduce the unemployment rate.

This finding may also help the government in educating citizens to create jobs for themselves rather than looking for employment elsewhere. Governments should be confident in developing education policy that encourages students to be creative and innovative since the current curriculum of universities does not encourage the same.

This can be addressed by establishing internship and business incubation programs at universities. This policy may encourage the business community to be more productive and innovative because this program truly can connect the student with the industrial world.

Therefore, this study finds that government-university cooperation may improve the field of innovation and entrepreneurship. Moreover, this study presents a paramount opinion for policy designers that supports the creation of mechanism concerning the roles of Pakistani higher education institutions, as the government may promote innovations and entrepreneurship to improve the economy of Pakistan.

The universities in Pakistan should develop some diverse and coherent entrepreneurship programs to educate their students and faculty to nurture entrepreneurship and innovation. These programs may serve as an effective complementary tool to leverage their educational assets to create economic value in Pakistani society.

Limitations

This research is subject to few limitations that restrict the generalizability of its findings. The first limitation is related to sample selection. The data were collected from a limited number of students who study in the six higher education institutions in Pakistan. Therefore, we suggest future studies should select a larger sample size from different geographical areas of the country. Second, the study investigates the direct effect of internship programs and business incubators, while neglecting the effect of some factors, such as the availability of finance, social support, and personality traits. Hence, we strongly recommend that future studies incorporate some other variables as well. Third, the study was based on a cross-sectional survey, which does not provide a precise cause and effect relationship. Thus, future studies should base on longitudinal data. Fourth, as this study made use of the non-probability sampling method, future research should use probability sampling on business students, such as stratified or cluster sampling. This will be essential in supporting the generalization of the results obtained in the current study. Finally, with the increase of the role of women in entrepreneurship, future research should also focus on gender differences that exist among entrepreneurs, especially the ways in which men and women are similar to or different from each other when starting small firms.

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