DOI: https://doi.org/10.52131/pjhss.2022.1001.0179

Pakistan Journal of Humanities and Social Sciences

Volume 10, Number 1, 2022, Pages 110–126
Journal Homepage:
https://journals.internationalrasd.org/index.php/pjhss

Bringing Youth towards Entrepreneurship: A Field Experiment in Pakistan

Muhammad Nadir Hussain Khan[1], Muhammad Shehryar[2], Sajid Haider[3], Qamar Abbas[4]

[1] Associate Lecturer, Department of Management Sciences, The Islamia University of Bahawalpur, Bahawalnagar Campus, Pakistan. Email: nadir.khan@iub.edu.pk
[2] Lecturer, UE Business School, Division of Management and Administrative Sciences, University of Education Lahore, Pakistan. Email: mshehryar@ue.edu.pk
[3] Assistant Professor, Department of Management Sciences, COMSATS University Islamabad Vehari Campus, Pakistan. Email: sajidhaider@ciitvehari.edu.pk
[4] Ph.D. Scholar, SOM, Xian Jiaotong University China/ Lecturer, UE Business School, Division of Management and Administrative Sciences, University of Education Lahore, Pakistan. Email: qamar.abbas@ue.edu.pk

ARTICLE INFO

Article History:
Received: December 23, 2021
Revised: February 10, 2022
Accepted: February 12, 2022
Available Online: February 13, 2022

Keywords:
Interventions
Entrepreneurial Attitude
Entrepreneurial Intention
Entrepreneurial Implementation Intentions

ABSTRACT

This study examines the causal effect of a one-day intervention, comprising motivation, information, knowledge, and role modelling, on entrepreneurial attitude, entrepreneurial intention, and entrepreneurial implementation intentions in a field experiment. A pre-test post-test design (N = 34) was used with 17 potential entrepreneurs in each group (control and experiment). The pre-test and post-test scores of the experiment group allowed the construction of a latent change model, which was tested by using multivariate linear regressions in partial least squares structural equation modelling (PLS-SEM). The results demonstrated a significant and positive effect of the intervention on entrepreneurial attitude, which increased entrepreneurial implementation intentions through entrepreneurial intention. The study's uniqueness is that it simultaneously examines the causal effect of the intervention on entrepreneurial attitude and the effect of resultant change in entrepreneurial attitude on entrepreneurial implementation intentions through entrepreneurial intention. Thus, the study examines the effect of intervention beyond entrepreneurial intention and explores the relationship between entrepreneurial intention and entrepreneurial implementation intentions. The theoretical implication of the study is that entrepreneurial intention mediates the effect of entrepreneurial attitude on entrepreneurial implementation intentions. Whereas the practical implication of the study is that youth graduating from universities and colleges can be made prefer entrepreneurship over wage employment through short interventions. Limitations have been discussed, and future recommendations have been proposed.

Corresponding Author's Email: mshehryar@ue.edu.pk

1. Introduction

Entrepreneurship is central to economic growth and development, jobs creation and unemployment reduction (Faria, Cuestas, & Mourelle, 2010; Van Praag & Versloot, 2007). This has been validated in both developed and developing countries (Fritsch, 2004; Konings, 1995). By 1997, the Massachusetts Institute of Technology (MIT)'s graduates had formed nearly 4000 companies that provided jobs to 1.1 million. These companies had sales of $232 Billion, making them World's 24th largest economy independently (Oeconomiae, 2008). Similarly, A more recent report by MIT itself on the economic impact of companies founded by MIT graduates between 1950 and 2014 states that during this period MIT graduates had established more than 30000 companies that had 4.6 million employees and combined sales of $1.9 trillion, making them 10th biggest economy of the world approximately (Roberts, Murray, & Kim, 2019). Thus, entrepreneurship is extremely important in GDP growth and employment

eISSN: 2415-007X

generation. It is therefore that public policy tries to lure individuals to adopt entrepreneurship as their careers (Commission of the European Communities, 2003).

Despite the foregoing positive effects of entrepreneurship on jobs creation and economic growth, relatively less attention has been paid to understand how people become entrepreneurs. Still, the basic question that needs to be answered in entrepreneurship research is why some individuals become entrepreneurs, while others choose not to be (Xie, 2014). Transition from a potential entrepreneur to an intentional entrepreneur is, however, a very complex phenomenon; because it is influenced by a large number of individual and environmental factors (Global Entrepreneurship Monitor, 2017; Short, Ketchen Jr, Shook, & Ireland, 2010). Individual factors have been considered more important than the environmental factors because, at the end of the day, it is an individual's decision to be an entrepreneur or not in response to the opportunities provided by the environment (Sánchez, 2011; Shaver & Scott, 1992).

Given the importance of individual factors, most of the previous research has focused on the ways a person's decision to become entrepreneur can be affected. Lortie and Castogiovanni (2015) have reported that this line of research has benefited from theory of planned behaviour (Ajzen, 1991), which posits that an individual's attitude, subjective norms and perceived behavioural control affect her or his decision to perform a behaviour. Not only Theory of Planned Behavior (TPB) but also many other psychological models consider intention as a single, sufficient and the most immediate predictor of behaviour (A.-F. Adam & Fayolle, 2016). Therefore, research in entrepreneurship in past two decades of 1990s and 2000s has mainly focused on developing entrepreneurial intention only (Schlaegel & Koenig, 2014).

Recent research in entrepreneurship explored entrepreneurial intention-behaviour relationship and found sizable gap there (A.-F. Adam & Fayolle, 2016; A. F. Adam & Fayolle, 2015; Nawaz, Afzal, & Shehzadi, 2013; Pittaway & Cope, 2007). In their meta-analysis of 98 studies, Schlaegel and Koenig (2014) delineated that entrepreneurial intention merely accounts for 37% variance in entrepreneurial behaviour. Kautonen, Van Gelderen, and Fink (2015) also found that 63% of intending entrepreneurs did not take any action toward starting their business even a year later. Similar results were reported by Van Gelderen, Kautonen, Wincent, and Biniari (2018) who found that only 16% of intending entrepreneurs had translated their entrepreneurial intentions into action six months later.

Implementation intentions have been found helpful in bridging the entrepreneurial intention-behaviour gap, because implementation intentions enhance, speed up, and facilitate the processes of translating intention into action (A.-F. Adam & Fayolle, 2016; Baluku, Kikooma, Otto, & König, 2020; Van Gelderen et al., 2018). Entrepreneurial intention and entrepreneurial implementation intentions are two different constructs. Intention is a simple willingness to do a certain act, whereas implementation intentions are a detailed planning in terms of when, where and how to perform a behaviour (Gollwitzer, 1993; Gollwitzer & Brandstätter, 1997). Implementation intentions are 'if-then plans' which 'help people get started on their goals as well as maintain their on-going goal pursuits' (Henderson, Gollwitzer, & Oettingen, 2007). The notion of implementation intentions is quite relevant to entrepreneurship because generally an intending entrepreneur needs to plan in terms of when, where and how to start his business.

Intention is necessary for development of implementation intentions. Of course, an individual will only plan in terms of when, where and how to start a business (Entrepreneurial implementation intentions) when he has prior willingness to start business (entrepreneurial intention). However, it is the strength of intention that determines and predicts implementation intentions (Brickell, Chatzisarantis, & Pretty, 2006; Churchill & Jessop, 2010). Therefore, the development of strong entrepreneurial intention is more significant factor in transformation of an individual into an entrepreneur, because entrepreneurial implementation intentions will naturally and automatically follow. This raises an obvious question; does change in entrepreneurial intention bring change in entrepreneurial implementation intentions?

Theory of planned behaviour suggests that the change in intention results from the change in an individual's attitude, subjective norms and perceived behavioural control. Within the framework of TPB, attitude has received greater attention in entrepreneurship research

because it has been found to be the strongest predictor of entrepreneurial intention (Basu & Virick, 2008; Malebana, 2014; Yang, 2013). Entrepreneurship researchers have used interventions frequently to bring about desired changes in entrepreneurial attitude and entrepreneurial intention (Asghar, Hakkarainen, & Nada, 2016; Fellnhofer & Puumalainen, 2017; Zampetakis, Kafetsios, & Moustakis, 2017). However, less attention has been paid to examine the effect of change in entrepreneurial attitude on entrepreneurial implementation intentions, through change in entrepreneurial intention. So, the second question that arises here is: does change in entrepreneurial attitude sequentially bring change in entrepreneurial intention and entrepreneurial implementation intentions?

In addition, there is an overall lack of studies that apply quasi-field experiment designs to draw true causal inferences in the domain of entrepreneurship. In their review of last decade's empirical entrepreneurship literature, Rideout and Gray (2013) came across only 12 such studies that had employed quasi-experimental design. The Academy of Management Learning and Education, and International Entrepreneurship Management Journal have, therefore, called for more rigorous methodology to draw definite conclusions (Kashif, Shehzadi, & Arshad, 2020; Rideout & Gray, 2013).

The objectives of this study were to answer above questions by conducting a field experiment. Experiment group received one-day intervention aimed at developing favourable entrepreneurial attitude amongst the participants. The effect of change in entrepreneurial attitude on entrepreneurial intention and entrepreneurial implementation intentions was examined in a latent change model. This study contributes to entrepreneurship theory and practice by answering the above mentioned questions.

2. Literature Review and Theoretical Framework

2.1. Intervention and Entrepreneurial Attitude

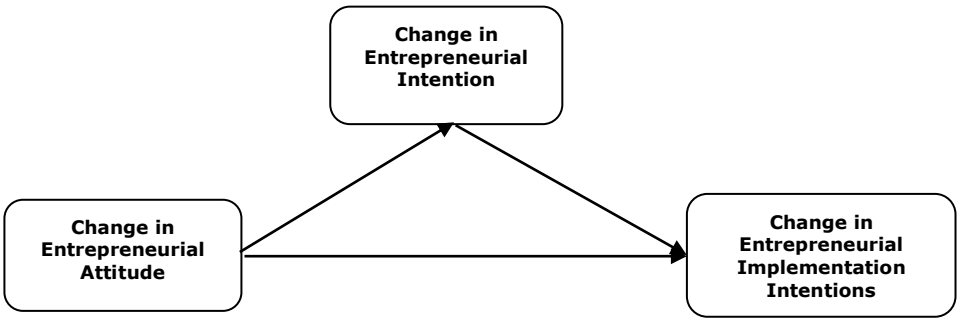
Entrepreneurial attitude refers to the difference between a person's perception of self employment and wage employment (Kolvereid, 1996). Entrepreneurial learning can help shape these personal perceptions (Krueger & Carsrud, 1993; Souitaris, Zerbinati, & Al-Laham, 2007). Attitudes vary over time as the person interacts with the environment. The information and knowledge that the individuals obtain in the external environment affect their behavioural beliefs which form their attitudes (Ajzen, 2006). However, the long-lasting impact on attitude is possible only when the information is correct and beneficial (Ajzen, 2006). Given that, any effort which is based on correct and useful information, can change a person's entrepreneurial attitude (Schwarz, Wdowiak, Almer-Jarz, & Breitenecker, 2009). In this study, researchers have done intervention to develop favourable entrepreneurial attitude among experiment group participants. Why has only attitude been targeted out of the three determinants of intention in theory of planned behaviour namely attitude, subjective norms and perceived behavioural control? Firstly, because Ajzen (2006) says that interventions aimed at bringing about a desired change in intentions and subsequent behaviours can be targeted at any or more of these three determinants. Secondly, Interventions should be aimed at the determinant, where there is clear room for improvement (Ajzen, 2006). As Pakistanis' attitude towards entrepreneurship is considerably low (Global Entrepreneurship Monitor, 2018; Qureshi & Mian, 2012), therefore there is room and need to improve Pakistani people's attitude towards entrepreneurship. Thirdly, Ajzen (2006) has proposed to target the predictor that explains the most variance in the intentions. Studies in entrepreneurship have found that attitude is the most significant determinant of intentions (Basu & Virick, 2008; Malebana, 2014; Yang, 2013).

While studies examining the effect of interventions on entrepreneurial attitude have reported mixed results (Cho & Honorati, 2014), there are numerous studies that have reported positive effect (Basu & Virick, 2008; Florin, Karri, & Rossiter, 2007; Schwarz et al., 2009). Entrepreneurship education positively affects entrepreneurial attitude (Ahmad, Hashmi, Shehzadi, & Nawaz, 2021; Ebewo, Rugimbana, & Shambare, 2017; Potishuk & Kratzer, 2017). Zampetakis et al. (2017) concluded that motivating persuasion leaves a positive effect on entrepreneurial attitude. Fellnhofer and Puumalainen (2017) found that role models have their influence in developing entrepreneurial attitudes. Fellnhofer (2018) found positive effect of web-based stories of successful entrepreneurs on entrepreneurial attitude.

Hypothesis 1: Motivation, persuasion, knowledge information and role model-based intervention develops favourable entrepreneurial attitude.

Figure 1 shows this study's research model / theoretical framework. This study has two parts. In first part, effect of intervention on entrepreneurial attitude has been studied and then, effect of change in entrepreneurial attitude was examined on entrepreneurial intention and entrepreneurial implementation intentions.

Figure 1: Research Model



2.2. Entrepreneurial Attitude and Entrepreneurial Implementation Intentions

The concept of implementation intentions finds its roots in Bandura (1991) self-regulatory theory. There are two types of intentions: goal intentions and implementation intentions (Dholakia & Pbagozzi, 2003; Gollwitzer, 1993). Goal intention is a simple willingness to do a certain act, whereas implementation intentions are a detailed planning in terms of when, where and how to perform a behaviour (Gollwitzer, 1993; Gollwitzer & Brandstätter, 1997). Stated usually in if-then format, implementation intentions connect specific situational cues to behavioural responses (Gollwitzer, 1993, 1999). This results in behaviour automation, because when the situational cues specified in the "if" component are recognized, the responses stipulated in the "then" component get activated automatically. This helps individuals translate their intentions into actions effortlessly and automatically (Ajzen, Czasch, & Flood, 2009; Gollwitzer, 1999). Wieber, Thürmer, and Gollwitzer (2015) have found medical evidence of this as well. Thus, implementation intentions are a combination of deliberation and automation (Gollwitzer & Schaal, 1998). Implementation intentions are effective because they enhance individuals' commitment to their goals as well (Ajzen et al., 2009).

Moreover, Baluku et al. (2020) studied that whether implementation intentions mediate the relationship between entrepreneurial intention and action, while perceived family support moderates the movement from implementation intention to entrepreneurial action. By employing the two way survey data taken from the sample of students of an African university, they found that said moderated double mediation model in which the effects of the two psychological attributes on entrepreneurial actions are explained via entrepreneurial intentions and implementation intentions. They also found moderation effects of perceived family support indicating that implementation intentions more likely predicted entrepreneurial actions in cases of higher family support. Further, Gollwitzer and Brandstätter (1997) proposed that individuals form implementations intentions to self-regulate themselves towards achieving complex and difficult goals. Why would a person self-regulate himself to complete a difficult task? A person's positive and high attitude towards a particular behaviour may prompt him to do so. For example, an individual's positive attitude towards entrepreneurship may prompt him to devise implementation intentions so that not only action aimed at establishment of business gets initiated, but also he keeps working towards business start-up despite distractions, difficulties and other competing goals. Thus, attitude may trigger implementation intentions/self-regulation. Broonen (2010) found similar results in a study in academics domain. Gwyther and Holland (2012) also found that attitude predicted self-regulation of drivers aged between 18 and 65.

Hypothesis 2: Change in entrepreneurial attitude positively changes entrepreneurial implementation intentions

2.3. Entrepreneurial Attitude and Entrepreneurial Intention

Theory of planned behaviour proposes that intention is determined by attitude, subjective norms and perceived behavioural control. This has been validated by many studies

(Kolvereid, 1996; Kolvereid & Isaksen, 2006; Krueger Jr, Reilly, & Carsrud, 2000; Krueger & Carsrud, 1993; Linan & Chen, 2009; Linan, Urbano, & Guerrero, 2011; Tkachev & Kolvereid, 1999). Entrepreneurial attitude is the strongest predictor of entrepreneurial intention amongst Chinese undergraduates (Yang, 2013) as well as South African university students (Malebana, 2014). Basu and Virick (2008) also found that entrepreneurial attitude determines entrepreneurial intention more than subjective norms and perceived behavioural control. Kautonen, Van Gelderen, and Tornikoski (2013) and Kautonen et al. (2015) also found that entrepreneurial attitude significantly predicts entrepreneurial intention. Law and Breznik (2017) in their study on Hong Kong university students found that entrepreneurial attitude is a significant determinant of entrepreneurial intention of engineering as well as non-engineering students. The effects of interventions also reach entrepreneurial intention through entrepreneurial attitude (Ebewo et al., 2017; Potishuk & Kratzer, 2017).

Hypothesis 3: Change in entrepreneurial attitude positively changes entrepreneurial intention.

2.4. Entrepreneurial Intention and Entrepreneurial Implementation Intentions

Van Gelderen et al. (2018) have found that implementation intentions mediate entrepreneurial intention-behaviour relationship. Gollwitzer and Bargh (1996) describing pre-actional phase of Action Phases Model report that 'individuals reflect and decide on the when, where, how and how long to act, thus creating plans for actions'. Experts have held this action planning synonymous with implementation intentions (Van Gelderen et al., 2018). A.-F. Adam and Fayolle (2016) in first ever operationalization of implementation intentions in entrepreneurship domain found that forming implementation intentions enhances both likelihood and pace of intending entrepreneurs to actually become entrepreneurs. Studies examining naturally formed implementation intentions have invariably found intention strength to be the main determinant of implementation intentions (Van Gelderen et al., 2018). Other determinants may also be explored. However, since implementation intentions are created to serve intentions, therefore other variables can only be moderators (Van Gelderen et al., 2018).

Hypothesis 4: Change in entrepreneurial intention positively changes entrepreneurial implementation intentions.

2.5. Mediating Role of Entrepreneurial Intentions

Gwyther and Holland (2012) also found that attitude predicted self-regulation of drivers aged between 18 and 65. As implementation intentions are based on self-regulatory mechanism, therefore, researchers expected that entrepreneurial attitude predicts entrepreneurial implementation intentions. On the other hand, entrepreneurial attitude predicts entrepreneurial intention (Kautonen et al., 2015; Kautonen et al., 2013) and entrepreneurial intention predicts entrepreneurial implementation intentions (Van Gelderen et al., 2018). Therefore, it could be expected that entrepreneurial intention mediates the relationship between entrepreneurial attitude and entrepreneurial implementation intentions along the lines of Baron and Kenny (1986) classical approach of mediation. In academic domain, Broonen (2010) found that intention mediates the relationship between attitude and implementation intentions.

Hypothesis 5: Change in entrepreneurial intention mediates the effect of change in entrepreneurial attitude on change in entrepreneurial implementation intentions.

3. Data and Methodology

From occupational choice point of view, an entrepreneur is one who chooses self-employment over wage employment (Linan & Chen, 2009). Near graduation students made population for this study, because they have to particularly choose between the self-employment and wage-employment once they graduate. In Pakistan, youth is the largest component of entire population. The researchers wanted to examine how motivation, persuasion, knowledge information and role model based intervention could influence them choose self-employment over and above wage-employment. Multi-stage random sampling was done that eventually resulted in selection of final year students at Government College of Commerce Vehari (Pakistan) and Government College of Commerce Burewala (Pakistan) for experiment and control groups respectively. Initially, 20 students were selected for either group. In experimental designs, small sample size is considered adequate and sufficient.

Barling, Weber, and Kelloway (1996) employed 20 participants in total; of which 9 and 11 participants were assigned to treatment and control groups respectively. A.-F. Adam and Fayolle (2016) in a simulation study of implementation intentions intervention in entrepreneurship domain employed merely 19 participants in total. All the students expressed their free will to join the experiment except two in the control group and therefore they were dropped. One student in the experiment group could not attend intervention session due to some personal problem. Two weeks later, when time 2 data were collected, one student from control group and two students from experiment group were absent. So, finally and coincidentally, there were 17 participants in each group who participated in the entire experiment.

3.1. Intervention

One-day intervention was held at Government College of Commerce Vehari (Pakistan) on October 18 2018. Audio-visual arrangements were made in a classroom. The 1st session began at 10:00 hrs in the morning. To begin with, first author introduced the participants to entrepreneurship and highlighted the benefits of having one's own business compared with doing job. Then the participants listened to SMEDA's (Small and Medium Enterprise Development Authority) two videos, available on its website[1], namely "Business Idea" and "Entrepreneurship Trainings and Business Plan Development". These videos are persuasive and share knowledge on entrepreneurial skills and process. As the names suggest, the videos completely describe business, idea generation, opportunity recognition, management of financial, human, technical & other resources, and development of business plan for the proposed business. These videos are joint production of SMEDA (Pakistan) and Virtual University of Pakistan, and are in Urdu (Pakistan's national language) to make them easily understandable. The first video features Prof. Dr. Muhammad Azam Rumi (international entrepreneurship expert) and the second video features Mr. Sultan Tiwana, General Manager, SMEDA. This part of intervention was presented more as an information and knowledge content.

Second session was designed around role modelling, knowledge information, persuasion and motivational content. A prominent businessman from the city was invited to tell the participants what the business was like. He gave practical insights into benefits, initiation and management of business. A lecturer from the Government College of Commerce Vehari, who comes from a business family and is Master of Science in Economics from COMSATS University Islamabad's Vehari Campus, highlighted not only the benefits of the business in light of his personal experience with it, but also emphasized the role a businessman plays in the development and progress of the society and the country.

In third and final session, some other motivating and informative videos were played. Video describing the success story of Orient—Pakistan's famous and innovative electronics company, was displayed telling how its founder, Bao Fazil, endeavoured and transpired from an ordinary tea vendor at Lahore's railway station into a founder of big company. A video of the top ten richest persons of Pakistan was shown and participants were reminded by the researcher to note that every single person of them was a businessman. The participants noted that job holders cannot accumulate fraction of the wealth these ten richest Pakistanis had. Then the story of Shahid Khan, the richest Pakistani, the owner of one of the largest auto spare parts company in USA and also the owner of famous football clubs in USA and UK, was shared. The special point emphasized in the story was that Shahid Khan had left a very good job to start his own business, and that too on borrowed funds. But the business was such a success that he later on purchased the company he had quit. His assets were US$ 10 billion approximately and he had employed more than 13000 people in his businesses. He is one of the richest and famous persons even in USA and entire World. The story of Mian Amir Mehmood, the founder and chairman of Punjab Group of Colleges, was also discussed, who also had left job to launch his first Punjab College in Lahore in 1985 and, in a short span of approximately 30 years, owns 3 universities (University of Central Punjab, Muhammad Ali Jinnah University and Capital University of Science and Technology), hundreds of Punjab Colleges, Allied Schools, Education for All (EFA) Schools, Resource Academia Schools, a software house, "Dunya" News Channel, "Dunya" Newspaper and "Doce"—famous bakery

[1] https://smeda.org/

chain in Lahore. Participants also listened to couple of short motivational speeches of Qasim Ali Shah, famous motivational speaker of the Country.

3.2. Research Design

Pre-test data on entrepreneurial attitude, entrepreneurial intention and entrepreneurial implementation intentions were collected from both the groups. Pre-test homogeneity between the groups was tested using Mann-Whitney U Test in SPSS. The experiment group received one day intervention. Two week later, post-test data were collected from both the groups. Then, Mann-Whitney U test was applied again to confirm that the two groups were no more homogenous by then. Paired Samples T test was administered in SPSS for pre-test and post-test data of the experiment group to see if the interventions had brought about statistically significant improvement in participants' entrepreneurial attitude, entrepreneurial intention and entrepreneurial implementation intentions. Paired Samples T test was also performed for the control group to ensure that there was no statistically significant difference in participants' entrepreneurial attitude, entrepreneurial intentions and entrepreneurial implementation intentions between the two times. Finally, latent change model (LCM) was constructed for experiment group, which was evaluated through PLS-SEM in Smart PLS 3.

3.3. Measurement Scales

Scales to measure entrepreneurial attitude and entrepreneurial intentions were adopted from the famous Entrepreneurial Intention Questionnaire (EIQ) by (Linan & Chen, 2009), because it has been validated by the researchers across developed and developing countries (Mahmoud & Muharam, 2014). Scale of entrepreneurial attitude had 5 items, whereas the scale of entrepreneurial intention comprised 6 items. The scale to measure entrepreneurial implementation intentions was adopted from Van Gelderen et al. (2018), who had reported Cronbach's alpha of 0.88. The researcher used these scales on 5-point likert scale where '1' stood for strongly disagree and '5' for strongly agree.

4. Results and Discussion

First hypothesis of the study was whether motivation, persuasion, knowledge information and role model based intervention affects attitude towards entrepreneurship. For this purpose, homogenous control and experiment groups were required before intervention. Mann-Whitney U test was performed to assess the homogeneity between the groups.

Table 1: Pre-test Homogeneity Test between Experiment and Control Groups

Attitude	Intention	Implementation Intentions
Mann-Whitney U	110.00	139.50	118.50
Wilcoxon W	263.00	292.50	271.50
Z	-1.20	-.17	-.95
Asymp. Sig. (2-tailed)	.23	.86	.34
Exact Sig. [2*(1-tailed Sig.)]	.25[b]	.87[b]	.38[b]

Note: Attitude = Entrepreneurial Attitude, Intention = Entrepreneurial Intention, Implementation Intentions = Entrepreneurial Implementation Intentions

Null hypothesis of Mann-Whitney U test is that there is no difference between the two populations. Since P values for entrepreneurial attitude, entrepreneurial intention and entrepreneurial implementation intentions were greater than 0.05 (alpha), null hypotheses were kept and therefore the conclusion was that both the groups were statistically homogenous.

Table 2: Post-Test Homogeneity Test between Experiment and Control Groups

	Attitude	Intention	Implementation Intentions
Mann-Whitney U	72.00	80.00	51.00
Wilcoxon W	225.00	233.00	204.00
Z	-2.52	-2.24	-3.23
Asymp. Sig. (2-tailed)	.01	.03	.00
Exact Sig. [2*(1-tailed Sig.)]	.01[b]	.03[b]	.00[b]

Note: Attitude = Entrepreneurial Attitude, Intention = Entrepreneurial Intention, Implementation Intentions = Entrepreneurial Implementation Intentions

This time all the P values were less than 0.05, the null hypotheses were rejected, which meant that both the groups were different then in terms of their entrepreneurial attitude, entrepreneurial intention and entrepreneurial implementation intentions—an indication that intervention had improved entrepreneurial attitude, entrepreneurial intention and entrepreneurial implementation intentions of participants in experiment group.

Table 3: Paired Samples T Test for Experiment Group

		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	**Attitude1–Attitude2**	-1.28	1.25	.30	-1.92	-.64	-4.23	16	.00
Pair 2	**Intention1-Intention2**	-1.22	.99	.24	-1.73	-.71	-5.08	16	.00
Pair 3	**Impleme1-Impleme2**	-1.16	.91	.22	-1.63	-.69	-5.22	16	.00

Note: Attitude = Entrepreneurial Attitude, Intention = Entrepreneurial Intention, Impleme = Entrepreneurial Implementation Intentions

Here, all the P values were less than 0.05, which meant that null hypotheses had been rejected and alternative hypotheses accepted. Thus, the results of the paired samples t test for the experiment group suggested that experiment group participants had developed entrepreneurial attitude, entrepreneurial intention and entrepreneurial implementation intentions as a result of intervention.

Table 4: Paired samples T Test for Control Group

		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	**Attitude1-Attitude2**	.15	.58	.14	-.14	.45	1.09	16	.29
Pair 2	**Intention1-Intention2**	.03	.26	.06	-.10	.16	.49	16	.63
Pair 3	**Impleme1-Impleme2**	.16	.56	.13	-.13	.44	1.18	16	.26

Note: Attitude = Entrepreneurial Attitude, Intention = Entrepreneurial Intention, Impleme = Entrepreneurial Implementation Intentions

Here, all the P values were greater than 0.05. Thus, null hypotheses were kept, which indicated that the control group participants had remained statistically same in terms of their entrepreneurial attitude, entrepreneurial intention and entrepreneurial implementation intentions.

4.1. Operationalization of Latent Change Model

Then, the next question was whether the intervention-based change in entrepreneurial attitude affects entrepreneurial intention and entrepreneurial implementation intentions successively. For this purpose, change constructs for the experiment group were constructed by subtracting each participant's pre-test score from its post-test score. MacKinnon (2008) suggested that change model thus constructed can be treated and analysed as cross-sectional model. In order to analyse the latent change model, PLS-SEM was employed. PLS-SEM works in two models. Measurement model is followed by a structural model.

4.1.1. Evaluation of Measurement Model

Since our model comprised the reflective variables, steps advised by Hair, Hult, Ringle, and Sarstedt (2017) were followed to evaluate the reflective measurement model. Measurement model employs PLS-algorithm to calculate path coefficients, reliability, validity, collinearity and other statistics. Once a model is found correct on these accounts, then the

next stage is evaluation of structural model, where the bootstrapping technique produces t-statistics and p-values to assess whether the path coefficients are significant. R^2 indicates model's predictive accuracy.

Table 5: Constructs' Validity and Reliability

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Attitude	0.919	0.949	0.861
Implementation Intentions	0.877	0.925	0.804
Intention	0.866	0.909	0.714

Note: Attitude = Entrepreneurial Attitude, Intention = Entrepreneurial Intention, Implementation Intentions = Entrepreneurial Implementation Intentions

Cronbach's Alpha and composite reliability are measures of construct's internal consistency reliability. A commonly known criterion is that value of 0.70 up to 0.90 is desirable on both. Sharma (2016) also reported that acceptable Alpha values ranged from 0.7 to 0.95. For composite reliability, threshold value is 0.95 as Hair et al. (2017) suggested that "Values above 0.90 (and definitely above 0.95) are not desirable because they indicate that all the indicator variables are measuring the same phenomenon". All the three variables have Cronbach's Alpha and composite reliability higher than 0.70 and less than 0.95, which means the variables have high internal consistency reliability. Average variance extracted (AVE) is a measure of convergent validity, which is the extent of common variance measured by a construct and its indicators. A value of 0.5 or above is considered as good convergent validity. Here all the constructs have very good convergent validity, as is clear from the table 5 that their AVEs are well in excess of the baseline of 0.5. Another measure of convergent validity is item reliability. An item must have a statistically significant outer-loading of 0.708 or higher on its construct.

Table 6: Outer Loadings of Items / Indicators

	Attitude	Implementation Intentions	Intention
Att3	0.933		
Att4	0.934		
Att5	0.917		
Imp1		0.947	
Imp2		0.803	
Imp3		0.933	
Int1			0.822
Int3			0.822
Int4			0.908
Int5			0.826

Note: Att = Entrepreneurial Attitude, Imp = Entrepreneurial Implementation Intentions, Int = Entrepreneurial Intention, Attitude = Entrepreneurial Attitude, Intention = Entrepreneurial Intention, Implementation Intentions = Entrepreneurial Implementation Intentions

4.1.1.1 Discriminant Validity

Discriminant validity—extent to which constructs in the model are different from one another, was measured by cross loadings and Fornell Larcker Criterion. Cross loadings approach requires that each item's outer-loading—loading with item's own construct, should be higher that its cross-loadings—item's loadings on other constructs in the model (Ringle, Sarstedt, & Mooi, 2010). Another approach for establishing discriminant validity is Fornell Larcker Criterion. Fornell and Larcker (1981) advised replacing diagonal elements in a correlation matrix with square roots of AVEs of the constructs and then comparing them with the constructs' correlations with other constructs in the matrix. Discriminant validity is established when diagonal elements are greater than elements in their respective rows and columns (Hair et al., 2017).

Table 7: Cross Loadings of Items

	Attitude	Implementation Intentions	Intention
Att3	**0.933**	0.565	0.751
Att4	**0.934**	0.482	0.771
Att5	**0.917**	0.622	0.754
Imp1	0.672	**0.947**	0.725
Imp2	0.285	**0.803**	0.522
Imp3	0.602	**0.933**	0.676
Int1	0.735	0.587	**0.822**
Int3	0.716	0.541	**0.822**
Int4	0.715	0.696	**0.908**
Int5	0.591	0.616	**0.826**

Note: Att = Entrepreneurial Attitude, Imp = Entrepreneurial Implementation Intentions, Int = Entrepreneurial Intention, Attitude = Entrepreneurial Attitude, Intention = Entrepreneurial Intention, Implementation Intentions = Entrepreneurial Implementation Intentions

Table 8: Fornell Larcker Criterion

	Attitude	Implementation Intentions	Intention
Attitude	0.928		
Implementation Intentions	0.602	0.897	
Intention	0.817	0.723	0.845

Note: Attitude = Entrepreneurial Attitude, Intention = Entrepreneurial Intention, Implementation Intentions = Entrepreneurial Implementation Intentions

4.1.2. Evaluation of the Structural Model

Once reliability and validity of the data were established in the evaluation model, the successive stage was evaluation of the structural model, also called inner model. Evaluation of structural model is performed on the basis of bootstrapping. But, assessment of Variance Inflation Factor (VIF), a measure of collinearity amongst the constructs, is necessary step before bootstrapping. Inner VIF values—the measure of collinearity on the construct level, are checked for reflective models. Collinearity is unwanted presence of high correlation amongst the predictors in the model. VIF equal to or less than 5 signals the absence of collinearity. Collinearity statistics are calculated by the PLS Algorithm in the measurement model.

Table 9: Inner Variance Inflation Factor

	Attitude	Implementation Intentions	Intention
Attitude		3.012	1.000
Implementation Intentions			
Intention		3.012	

Note: Attitude = Entrepreneurial Attitude, Intention = Entrepreneurial Intention, Implementation Intentions = Entrepreneurial Implementation Intentions

Baron and Kenny (1986) mediation approach requires that, for mediation to occur, 4 conditions must be fulfilled. Impact of independent variable on dependent variable in direct model must be significant. Impact of independent variable on mediator in indirect model must be significant. Impact of mediator on dependent variable in indirect model must be significant. Finally, indirect effect of independent variable on dependent variable in indirect model must also be significant. Figure 2 indicates that first condition of mediation has been fulfilled.

Figure 2: Direct Model

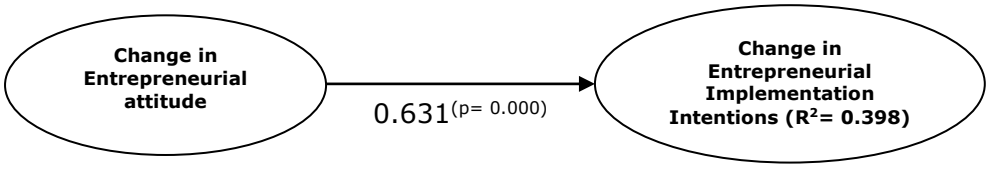


Figure 3: Indirect Model

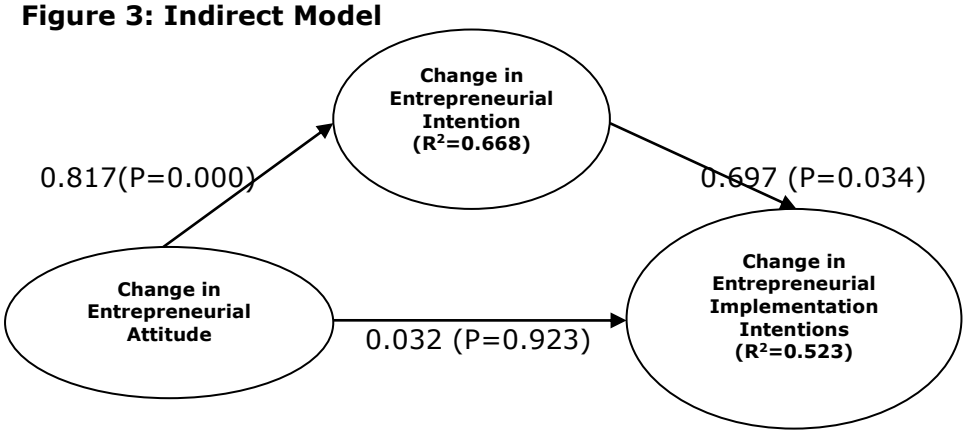


Figure 3 reports the compliance with 2nd and 3rd condition of mediation. For fourth condition, indirect effect of change in entrepreneurial attitude on change in entrepreneurial implementation intentions is presented in Table 10.

Table 10: Specific Indirect Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Attitude -> Intention -> Implementation Intentions	0.570	0.590	0.283	2.014	0.044

Note: Attitude = Entrepreneurial Attitude, Intention = Entrepreneurial Intention, Implementation Intentions = Entrepreneurial Implementation Intentions

Here p value being less than 0.05 is indicative that indirect effect of change in entrepreneurial attitude on change in entrepreneurial implementation intentions is also significant. Thus, all the conditions of Baron and Kenny (1986) were met. This meant that change in entrepreneurial intention mediated the relationship between change in entrepreneurial attitude and change in entrepreneurial implementation intentions.

4.2. Discussion

All the 5 hypotheses were supported. Hypothesis 1 was that motivation, persuasion, knowledge information and role model based intervention develops favourable entrepreneurial attitude. Existing entrepreneurship literature provides support for effectiveness of the individual components of our intervention (Fellnhofer, 2018; Fellnhofer & Puumalainen, 2017; Müller, 2009; Potishuk & Kratzer, 2017; Zampetakis et al., 2017). Effect of short-term interventions is relatively less studied phenomenon in entrepreneurship domain and therefore this result adds to the literature.

Support was also found for the hypothesis 2 that postulated that change in entrepreneurial attitude positively affects change in entrepreneurial implementation intentions. However, this is not a much studied proposition either in entrepreneurship or in any other discipline except Broonen (2010), who reported that attitude positively influences implementation intentions in academic domain. Therefore, the result adds to the theory of entrepreneurship. Results supported our hypothesis 3 also, as change in entrepreneurial attitude brought change in entrepreneurial intention. The result is in agreement with existing literature (Basu & Virick, 2008; Lortie & Castogiovanni, 2015; Malebana, 2014; Yang, 2013). These studies, however, do not describe how intervention-based change in entrepreneurial attitude affects change in entrepreneurial intention. Based on latent change model, our study concludes that change in entrepreneurial attitude predicts change in entrepreneurial intention.

Change in entrepreneurial intention positively and significantly changes entrepreneurial implementation intentions, which supported our hypothesis 4. Brickell et al. (2006) and Churchill and Jessop (2010) have found that strength of intention is the main determinant of implementation intentions. Van Gelderen et al. (2018) have recently found that implementation intentions mediate between entrepreneurial intention and action. Therefore, there was need to study implementation intentions as a target variable in entrepreneurship.

Although, previous entrepreneurship research has examined the relationship between intention and implementation intentions (A.-F. Adam & Fayolle, 2016; Van Gelderen et al., 2018), no previous research has examined the "hard" effect (true causal effect) of change in entrepreneurial intention on change in entrepreneurial implementation intentions.

Finally, the study found that entrepreneurial intention fully mediates the relationship between entrepreneurial attitude and entrepreneurial implementation intentions along the lines of classical Baron and Kenny (1986) approach of mediation, which was our hypothesis 5. Broonen (2010), in an attempt to add implementation intentions to theory of planned behaviour to make a new Volitional Planned Behaviour Model (VPBM), found that effect of attitude on implementation intentions is mediated through intention in academic domain. However, Broonen (2010) did not follow the classical Baron and Kenny (1986) approach as he didn't report compliance with the first condition of establishing the effect of attitude on implementation intentions in a direct model.

5. Conclusion and Implications

5.1. Theoretical Implications

The study provides evidence that interventions can be used to develop positive attitude towards entrepreneurship among individuals that leads to the development of entrepreneurial intention and subsequently entrepreneurial implementation intentions. There are two different domains of entrepreneurship research: one domain explores the effect of interventions on the development of entrepreneurial intentions, and the more recent domain explores how implementation intentions can help bridge the gap between entrepreneurial intention and behaviour. Studies in entrepreneurship have traditionally applied intention models such as theory of planned behaviour (Ajzen, 1991) and entrepreneurial event model (Shapero & Sokol, 1982) that assume that intention is sufficient and sole predictor of actions. Therefore, research in entrepreneurship in past two decades of 1990s and 2000s has remained focused on developing and predicting entrepreneurial intention (Schlaegel & Koenig, 2014). It is only recently that entrepreneurship research has found weak relationship between entrepreneurial intention and behavior (Van Gelderen et al., 2018). In this regards, research has found that implementation intentions help bridge the gap between entrepreneurial intention and behavior (A.-F. Adam & Fayolle, 2016; A. F. Adam & Fayolle, 2015; Van Gelderen et al., 2018). Although previous interventional research in entrepreneurship has examined the effect of interventions on entrepreneurial attitude, and entrepreneurial intentions (Asghar et al., 2016; Basu & Virick, 2008; Cho & Honorati, 2014; Ebewo et al., 2017; Potishuk & Kratzer, 2017; Stamboulis & Barlas, 2014), little attention has been paid to simultaneously examine the subsequent effect of change in entrepreneurial attitude and intention on entrepreneurial implementation intentions. This study develops a connection between these two separate domains of entrepreneurship research by establishing that entrepreneurial intention mediates between entrepreneurial attitude and entrepreneurial implementation intentions.

5.2. Practical Implications

Practical implication of the study is that higher educational institutions including universities and colleges should develop valid and reliable one-day interventions comprising motivation, information, knowledge and role modelling for their students to develop entrepreneurial implementation intentions among them. Universities being tools for social and economic development (Lüthje & Franke, 2003) can play an important role in this respect. Educational institutions influence students' career choices (Shapero & Sokol, 1982). University students should be given entrepreneurship education in order to promote entrepreneurship (Movahedi & Fathi, 2011) especially for the developing countries where unemployment looms large (ILO, 2011). Lekoko (2011) argued for making universities centres of entrepreneurial education and activity. Population is increasing rapidly, and more and more students are graduating from the universities, colleges and institutes. It is high time that graduates' mind-sets and attitudes are developed towards entrepreneurship to reduce unemployment and enhance economic and social development. Ridley, Davis, and Korovyakovskaya (2017) maintain that universities have traditionally been preparing their graduates for jobs, whereas graduates with entrepreneurial mind-set are needed. They emphasize that this can be achieved if students are familiarized with basic concepts of entrepreneurship, imparted requisite skills, asked to participate in business plan contests and allowed to practice their ideas in incubation facilities.

Universities compete and are ranked on the basis of their graduates' employability and salaries—an indication that universities promote and inculcate job-seeking in their graduates. Education systems in Spain do not promote entrepreneurship and resultantly Spanish graduates prefer civil services or private employment over entrepreneurship, because they feel it a risky option and consider themselves untrained for this (Rueda, Moriano, & Liñán, 2015). Ismail (2015) reported that only 34% and 51% of the new female and male university students respectively have positive attitude towards entrepreneurship in United Arab Emirates. Thus, universities and other educational institutions have a role to play in developing entrepreneurial implementation intentions amongst their students, which can translate into business start-ups.

5.3. Limitations and Recommendations for Future Research

The study has its limitations. Due to scarcity of time and resources, researchers could not explore whether those with entrepreneurial implementation intentions actually got engaged into entrepreneurship or not. Therefore, future studies should include entrepreneurial action as the dependent variable in serial mediation models. It was a two wave study, whereas Cole and Maxwell (2003) maintain that three wave longitudinal studies present better results, which we have left out for the future studies. This study has expanded theory of planned behaviour by adding entrepreneurial implementation intentions as the dependent variable of intention. Future studies should see how this variable fits in the entire theory of planned behaviour. Research on the role of implementation intentions in the domain of entrepreneurship is still in the early phase; therefore more studies on how implementation intentions relate to the theory of planned behaviour in entrepreneurship are needed to draw generalized results and conclusions. Browne and Chan (2012) found that using implementation intentions and theory of planned behaviour together, in health behaviour domain, increases the predictability of the target behaviour, and formation of implementation intentions increases likelihood of enactment of the target behaviour. Also, simultaneous interventions on all the three determinants of intention namely attitude, subjective norms and perceived behavioural control should be carried out to increase strength of the intention, which has been found to be the determinant of implementation intentions invariably in all the studies that have examined implementation intentions in natural settings (Van Gelderen et al., 2018). This research was conducted only on a group of students. Future research should include other groups and segments of population in different countries and societies to increase the external validity and generalization of the findings.

References

Adam, A.-F., & Fayolle, A. (2016). Can implementation intention help to bridge the intention–behaviour gap in the entrepreneurial process? An experimental approach. *The International Journal of Entrepreneurship and Innovation, 17*(2), 80-88. doi:https://doi.org/10.1177/1465750316648569

Adam, A. F., & Fayolle, A. (2015). Bridging the entrepreneurial intention–behaviour gap: the role of commitment and implementation intention. *International Journal of Entrepreneurship and Small Business, 25*(1), 36-54.

Ahmad, M. A., Hashmi, A., Shehzadi, K., & Nawaz, M. A. (2021). The Role of Language Style, Perceived Services and Medical Qualities on the Tourism Development in Malaysia: Mediating Role of Customer Satisfaction. *Review of Economics and Development Studies, 7*(1), 25-36.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes, 50*(2), 179-211. doi:https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I. (2006). Behavioral interventions based on the theory of planned behavior.

Ajzen, I., Czasch, C., & Flood, M. G. (2009). From intentions to behavior: Implementation intention, commitment, and conscientiousness 1. *Journal of applied social psychology, 39*(6), 1356-1372. doi:https://doi.org/10.1111/j.1559-1816.2009.00485.x

Asghar, M. Z., Hakkarainen, P. S., & Nada, N. (2016). An analysis of the relationship between the components of entrepreneurship education and the antecedents of theory of planned behavior. *Pakistan Journal of Commerce and Social Sciences (PJCSS), 10*(1), 45-68.

Baluku, M. M., Kikooma, J. F., Otto, K., & König, C. J. (2020). Positive psychological attributes and entrepreneurial intention and action: the moderating role of perceived family

support. *Frontiers in psychology, 11*, 1-17. doi:https://doi.org/10.3389/fpsyg.2020.546745

Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational behavior and human decision processes, 50*(2), 248-287. doi:https://doi.org/10.1016/0749-5978(91)90022-L

Barling, J., Weber, T., & Kelloway, E. K. (1996). Effects of transformational leadership training on attitudinal and financial outcomes: A field experiment. *Journal of applied psychology, 81*(6), 827-832. doi:https://doi.org/10.1037/0021-9010.81.6.827

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology, 51*(6), 1173-1182.

Basu, A., & Virick, M. (2008). *Assessing entrepreneurial intentions amongst students: A comparative study.* Paper presented at the VentureWell. Proceedings of Open, the Annual Conference.

Brickell, T. A., Chatzisarantis, N. L., & Pretty, G. M. (2006). Using past behaviour and spontaneous implementation intentions to enhance the utility of the theory of planned behaviour in predicting exercise. *British journal of health psychology, 11*(2), 249-262. doi:https://doi.org/10.1348/135910705X52471

Broonen, J. P. (2010). *Volition and the Theory of Planned Behaviour: How to Fill the Gap between Intention and Performance?* Paper presented at the AIP Conference Proceedings.

Browne, J., & Chan, A. Y. (2012). Using the theory of planned behaviour and implementation intentions to predict and facilitate upward family communication about mammography. *Psychology & health, 27*(6), 655-673. doi:https://doi.org/10.1080/08870446.2011.615396

Cho, Y., & Honorati, M. (2014). Entrepreneurship programs in developing countries: A meta regression analysis. *Labour Economics, 28*, 110-130. doi:https://doi.org/10.1016/j.labeco.2014.03.011

Churchill, S., & Jessop, D. (2010). Spontaneous implementation intentions and impulsivity: Can impulsivity moderate the effectiveness of planning strategies? *British journal of health psychology, 15*(3), 529-541. doi:https://doi.org/10.1348/135910709X475423

Cole, D. A., & Maxwell, S. E. (2003). Testing mediational models with longitudinal data: questions and tips in the use of structural equation modeling. *Journal of abnormal psychology, 112*(4), 558-577. doi:https://doi.org/10.1037/0021-843X.112.4.558

Commission of the European Communities. (2003). Green Paper: Entrepreneurship in Europe. *Enterprise Directorate-General, Document based on COM (2003) 27 final*.

Dholakia, U. M., & Pbagozzi, R. (2003). As Time Goes By: How Goal and Implementation Intentions Influence Enactment of Short-Fuse Behaviors 1. *Journal of applied social psychology, 33*(5), 889-922. doi:https://doi.org/10.1111/j.1559-1816.2003.tb01930.x

Ebewo, P. E., Rugimbana, R., & Shambare, R. (2017). Effects of entrepreneurship education on students' entrepreneurial intentions: A case of Botswana. *Management, 5*(4), 278-289.

Faria, J. R., Cuestas, J. C., & Mourelle, E. (2010). Entrepreneurship and unemployment: a nonlinear bidirectional causality? *Economic Modelling, 27*(5), 1282-1291. doi:https://doi.org/10.1016/j.econmod.2010.01.022

Fellnhofer, K. (2018). Narratives boost entrepreneurial attitudes: Making an entrepreneurial career attractive? *European journal of education, 53*(2), 218-237. doi:https://doi.org/10.1111/ejed.12274

Fellnhofer, K., & Puumalainen, K. (2017). Can role models boost entrepreneurial attitudes? *International journal of entrepreneurship and innovation management, 21*(3), 274-290.

Florin, J., Karri, R., & Rossiter, N. (2007). Fostering entrepreneurial drive in business education: An attitudinal approach. *Journal of management education, 31*(1), 17-42. doi:https://doi.org/10.1177/1052562905282023

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research, 18*(1), 39-50. doi:https://doi.org/10.1177/002224378101800104

Fritsch, M. (2004). Entrepreneurship, entry and performance of new business compared in two growth regimes: East and West Germany. *Journal of Evolutionary Economics, 14*(5), 525-542. doi:https://doi.org/10.1007/s00191-004-0230-z

Global Entrepreneurship Monitor. (2017). *GEM Global report 2016/17*. Retrieved from London:

Global Entrepreneurship Monitor. (2018). *Global Report 2017/18 London*. Retrieved from UK:

Gollwitzer, P. M. (1993). Goal achievement: The role of intentions. *European review of social psychology, 4*(1), 141-185. doi:https://doi.org/10.1080/14792779343000059
Gollwitzer, P. M. (1999). Implementation intentions: strong effects of simple plans. *American psychologist, 54*(7), 493-503. doi:https://doi.org/10.1037/0003-066X.54.7.493
Gollwitzer, P. M., & Bargh, J. A. (1996). *The psychology of action: Linking cognition and motivation to behavior*. New York: Guilford Press.
Gollwitzer, P. M., & Brandstätter, V. (1997). Implementation intentions and effective goal pursuit. *Journal of personality and social psychology, 73*(1), 186-199.
Gollwitzer, P. M., & Schaal, B. (1998). Metacognition in action: The importance of implementation intentions. *Personality and social psychology review, 2*(2), 124-136. doi:https://doi.org/10.1207/s15327957pspr0202_5
Gwyther, H., & Holland, C. (2012). The effect of age, gender and attitudes on self-regulation in driving. *Accident Analysis & Prevention, 45*, 19-28. doi:https://doi.org/10.1016/j.aap.2011.11.022
Hair, J. F. J., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Thousand Oaks, CA: Sage publications.
Henderson, M. D., Gollwitzer, P. M., & Oettingen, G. (2007). Implementation intentions and disengagement from a failing course of action. *Journal of Behavioral Decision Making, 20*(1), 81-102. doi:https://doi.org/10.1002/bdm.553
ILO. (2011). Global employment trends for youth: 2011 update. In. Geneva: International Labour Office.
Ismail, A. (2015). The entrepreneurial attitude and intentions of newly enrolled university students–Issues and policy implications. *Journal of Research in Business, Economics and Management (JRBEM), 4*(3).
Kashif, N. U., Shehzadi, K., & Arshad, Z. (2020). An Analysis of Teaching Learning Process in Higher Education Institutions of Bahawalpur. *iRASD Journal of Educational Research, 1*(1), 09-14.
Kautonen, T., Van Gelderen, M., & Fink, M. (2015). Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship theory and practice, 39*(3), 655-674. doi:https://doi.org/10.1111/etap.12056
Kautonen, T., Van Gelderen, M., & Tornikoski, E. T. (2013). Predicting entrepreneurial behaviour: a test of the theory of planned behaviour. *Applied economics, 45*(6), 697-707. doi:https://doi.org/10.1080/00036846.2011.610750
Kolvereid, L. (1996). Organizational employment versus self-employment: Reasons for career choice intentions. *Entrepreneurship theory and practice, 20*(3), 23-31. doi:https://doi.org/10.1177/104225879602000302
Kolvereid, L., & Isaksen, E. (2006). New business start-up and subsequent entry into self-employment. *Journal of business venturing, 21*(6), 866-885. doi:https://doi.org/10.1016/j.jbusvent.2005.06.008
Konings, J. (1995). Gross job flows and the evolution of size in UK establishments. *Small Business Economics, 7*(3), 213-220. doi:https://doi.org/10.1007/BF01135366
Krueger Jr, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of business venturing, 15*(5-6), 411-432. doi:https://doi.org/10.1016/S0883-9026(98)00033-0
Krueger, N. F., & Carsrud, A. L. (1993). Entrepreneurial intentions: Applying the theory of planned behaviour. *Entrepreneurship & Regional Development, 5*(4), 315-330. doi:https://doi.org/10.1080/08985629300000020
Law, K. M., & Breznik, K. (2017). Impacts of innovativeness and attitude on entrepreneurial intention: Among engineering and non-engineering students. *International Journal of Technology and Design Education, 27*(4), 683-700. doi:https://doi.org/10.1007/s10798-016-9373-0
Lekoko, M. (2011). *Student's perceptions regarding entrepreneurship education: a case of two universities in Botswana.* (MTech), Tshwane University of Technology, Pretoria.
Linan, F., & Chen, Y. W. (2009). Development and cross–cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship theory and practice, 33*(3), 593-617. doi:https://doi.org/10.1111/j.1540-6520.2009.00318.x
Linan, F., Urbano, D., & Guerrero, M. (2011). Regional variations in entrepreneurial cognitions: Start-up intentions of university students in Spain. *Entrepreneurship and regional development, 23*(3-4), 187-215. doi:https://doi.org/10.1080/08985620903233929

Lortie, J., & Castogiovanni, G. (2015). The theory of planned behavior in entrepreneurship research: what we know and future directions. *International entrepreneurship and management journal, 11*(4), 935-957. doi:https://doi.org/10.1007/s11365-015-0358-3
Lüthje, C., & Franke, N. (2003). The 'making'of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. *R&d Management, 33*(2), 135-147. doi:https://doi.org/10.1111/1467-9310.00288
MacKinnon, D. P. (2008). Multivariate applications series: Introduction to Statistical Mediation Analysis. *Management Review, 13*(2), 257-279.
Mahmoud, M. A., & Muharam, F. M. (2014). Factors affecting the entrepreneurial intention of PhD candidates: A study of Nigerian international students of UUM. *European Journal of Business and Management, 6*(36), 17-24.
Malebana, J. (2014). Entrepreneurial intentions of South African rural university students: A test of the theory of planned behaviour. *Journal of Economics and behavioral studies, 6*(2), 130-143. doi:https://doi.org/10.22610/jebs.v6i2.476
Movahedi, R., & Fathi, H. (2011). Assessing agricultural students' attitude towards entrepreneurship. *International Journal of Agriculture: Research and Review, 1*(4), 168-173.
Müller, S. (2009). *Encouraging future entrepreneurs: The effect of entrepreneurship course characteristics on entrepreneurial intention.* (Doctoral), EDIS, St. Gallen. Retrieved from http://www.biblio.unisg.ch/www/edis.nsf/wwwDisplayIdentifier/3550
Nawaz, M. A., Afzal, N., & Shehzadi, K. (2013). Problems of formally employed women: A case study of Bahawalnagar, Pakistan. *Asian Journal of Empirical Research, 3*(10), 1291-1299.
Oeconomiae, D. (2008). *Encouraging Future Entrepreneurs: The Effect of Entrepreneurship Course Characteristics on Entrepreneurial Intention.* (Doctoral), University of St. Gallen,
Pittaway, L., & Cope, J. (2007). Entrepreneurship education: A systematic review of the evidence. *International small business journal, 25*(5), 479-510. doi:https://doi.org/10.1177/0266242607080656
Potishuk, V., & Kratzer, J. (2017). Factors Affecting Entrepreneurial Intentions and Entrepreneurial Attitudes in Higher Education. *Journal of Entrepreneurship Education, 20*(1).
Qureshi, M. S., & Mian, S. (2012). *Global entrepreneurship monitor Pakistan report 2012*. Retrieved from Karachi:
Rideout, E. C., & Gray, D. O. (2013). Does entrepreneurship education really work? A review and methodological critique of the empirical literature on the effects of university-based entrepreneurship education. *Journal of small business management, 51*(3), 329-351.
Ridley, D., Davis, B., & Korovyakovskaya, I. (2017). Entrepreneurial mindset and the university curriculum. *Journal of Higher Education Theory and Practice, 17*(2), 79-100.
Ringle, C. M., Sarstedt, M., & Mooi, E. A. (2010). *Response-based segmentation using finite mixture partial least squares.* Paper presented at the Data mining.
Roberts, E. B., Murray, F., & Kim, J. D. (2019). *Entrepreneurship and Innovation at MIT: Continuing global growth and impact*. Retrieved from
Rueda, S., Moriano, J. A., & Liñán, F. (2015). Validating a theory of planned behavior questionnaire to measure entrepreneurial intentions. In F. Alain, K. Paula, & L. Francisco (Eds.), *Developing, shaping and growing entrepreneurship* (pp. 60-78): Edward Elgar Publishing.
Sánchez, J. C. (2011). University training for entrepreneurial competencies: Its impact on intention of venture creation. *International entrepreneurship and management journal, 7*(2), 239-254. doi:https://doi.org/10.1007/s11365-010-0156-x
Schlaegel, C., & Koenig, M. (2014). Determinants of entrepreneurial intent: A meta–analytic test and integration of competing models. *Entrepreneurship theory and practice, 38*(2), 291-332. doi:https://doi.org/10.1111/etap.12087
Schwarz, E. J., Wdowiak, M. A., Almer-Jarz, D. A., & Breitenecker, R. J. (2009). The effects of attitudes and perceived environment conditions on students' entrepreneurial intent: An Austrian perspective. *Education+ Training, 51*(4), 272-291. doi:https://doi.org/10.1108/00400910910964566
Shapero, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. In C. Kent, D. Sexton, & K. Vesper (Eds.), *The encyclopedia of entrepreneurship* (pp. 72-90). Englewood Cliffs: Prentice-Hall.

Sharma, B. (2016). A focus on reliability in developmental research through Cronbach's Alpha among medical, dental and paramedical professionals. *Asian Pacific Journal of Health Sciences, 3*(4), 271-278.
Shaver, K. G., & Scott, L. R. (1992). Person, process, choice: The psychology of new venture creation. *Entrepreneurship theory and practice, 16*(2), 23-46. doi:https://doi.org/10.1177/104225879201600204
Short, J. C., Ketchen Jr, D. J., Shook, C. L., & Ireland, R. D. (2010). The concept of "opportunity" in entrepreneurship research: Past accomplishments and future challenges. *Journal of management, 36*(1), 40-65. doi:https://doi.org/10.1177/0149206309342746
Souitaris, V., Zerbinati, S., & Al-Laham, A. (2007). Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *Journal of business venturing, 22*(4), 566-591. doi:https://doi.org/10.1016/j.jbusvent.2006.05.002
Stamboulis, Y., & Barlas, A. (2014). Entrepreneurship education impact on student attitudes. *The International Journal of Management Education, 12*(3), 365-373. doi:https://doi.org/10.1016/j.ijme.2014.07.001
Tkachev, A., & Kolvereid, L. (1999). Self-employment intentions among Russian students. *Entrepreneurship & Regional Development, 11*(3), 269-280. doi:https://doi.org/10.1080/089856299283209
Van Gelderen, M., Kautonen, T., Wincent, J., & Biniari, M. (2018). Implementation intentions in the entrepreneurial process: concept, empirical findings, and research agenda. *Small Business Economics, 51*(4), 923-941. doi:https://doi.org/10.1007/s11187-017-9971-6
Van Praag, C. M., & Versloot, P. H. (2007). What is the value of entrepreneurship? A review of recent research. *Small Business Economics, 29*(4), 351-382. doi:https://doi.org/10.1007/s11187-007-9074-x
Wieber, F., Thürmer, J. L., & Gollwitzer, P. M. (2015). Promoting the translation of intentions into action by implementation intentions: behavioral effects and physiological correlates. *Frontiers in human neuroscience, 9*, 395. doi:https://doi.org/10.3389/fnhum.2015.00395
Xie, C. (2014). Why Do Some People Choose to Become Entrepreneurs? An Integrative Approach. *Journal of Management Policy & Practice, 15*(1), 25-38.
Yang, J. (2013). The theory of planned behavior and prediction of entrepreneurial intention among Chinese undergraduates. *Social Behavior and Personality: an international journal, 41*(3), 367-376. doi:https://doi.org/10.2224/sbp.2013.41.3.367
Zampetakis, L. A., Kafetsios, K., & Moustakis, V. (2017). Using emotional persuasion for changing attitudes towards entrepreneurship: An interpersonal perspective. *Journal of Business Venturing Insights, 7*, 50-54. doi:https://doi.org/10.1016/j.jbvi.2017.03.002