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Wanasika, Brandt, Dubickis, Treacy, Pihlajarinne, Acorella, Militaru, Bakker, Liu, Rong, Tsuzuki & Vo: Innovation orientation and cultural differences

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VERTAISARVIOITU / PEER-REVIEWED

Creativity and innovation capabilities are strongly associated with entrepreneurship and studies indicate that innovation skills are needed to become entrepreneur. Typically, highly innovative individuals are naturally drawn towards entrepreneurship. It may be that some cultures enhance innovativeness more than others, leading individuals from these cultures to be more innovative than others. Our interest is to study the cultural impact on innovativeness.

Our study focuses on the business students from several countries, with a total sample size of 364 university students. Some of them have lived in multiple countries thus providing comparable data of multicultural students versus national data sets. Innovation was measured with 16 items, which described different aspects of innovativeness. In our statistical analysis, we identified differences by comparing innovation orientation in different cultures.

Introduction

Entrepreneurs are regarded as inherently creative and innovative (Drucker, 1985; Schumpeter; 1934; Timmons et al., 1985). Consistent results show that a preference for innovation clearly differentiates entrepreneurs from managers (Carland & Carland, 1991; Stewart et al., 1999; Timmons, 1990). Managers tend to be more adaptive (Buttner & Gryskiewitz, 1993), and to be rewarded for their competence and efficiency (Schein, 1985) rather than for innovation and creative destruction (Schumpeter, 1934). Recent studies have shown that unlike managers, the entrepreneurial mindset is characterized by a high propensity for risk, limited resources, and significant uncertainty that plays into their decision – on the other hand, innovation provides the means for entrepreneurial growth (Estrin et al., 2019)

Ensley, Carland and Carland (2000) have discussed various streams of personality and cognitive research devoted to understanding the entrepreneurial psyche. They suggested that entrepreneurial psyche can be better understood as an individual drive toward entrepreneurial behaviour. Florin et al. (2007) have defined the Entrepreneurial Drive (ED) as "an individual's perception of the desirability and feasibility to proactively pursue opportunities

and creatively respond to challenges, tasks, needs, and obstacles in innovative ways". Individuals with high levels of entrepreneurial drive are generally high achievers, possess high self-efficacy, question the status quo, and have preference for innovative solutions. Studies support the notion of self-efficacy among entrepreneurs, in addition to internal locus of control, need for achievement and a high tolerance of risk (Asante & Affum-Osei, 2019; Kerr, Kerr, & Dalton, 2019). Meta-analytical studies appear to suggest a consensus on entrepreneurial personality and cognitive attributes such as need for achievement, locus of control, self-efficacy, innovativeness, stress tolerance, risk-taking, passion for work and proactive personality (Brandstatter, 2011).

Recent studies have explored the effects of national culture on entrepreneurial attitudes and behaviors. Gorgievski and Stephan, (2016) have advocated for research in this area. Initial findings indicate that national culture affects various attributes of entrepreneurship (Bogatyreva et al., 2019; Shirokova et al., 2018; Rarick & Han, 2015). Our study adds to the knowledge in this area. It may be that there are cultural differences concerning innovation abilities and thus the different focus enhancing innovation skills would be needed. Similarly, the entrepreneurial intentions may vary between the countries with young millennials. In order to find out the culturally effective actions the specific knowhow should firstly be gained. So far there are no studies of millennials' cultural differences and innovation and entrepreneurship orientation. Focus of this study are young adults studying in business schools in different countries and compare their innovation orientation to cultural differences.

Theoretical background

Entrepreneurial intentions reflect a person's willingness to pursue a certain course of entrepreneurial behaviour. Research has indicated that intentions are a reliable and most effective predictor of actual behaviour (Krueger & Carsrud, 1993; Shaver & Scott, 1991). In this study we focus on students' innovativeness, proactivity and risk-taking in relation to entrepreneurial intentions and we will focus impact of respondents' culture.

Innovative individuals

Psychological and personality characteristics have been shown to be the major determinants that predict the individuals' innovativeness. While some believe it is possible for all individuals to be innovative, it appears to be settled that creating new ideas is just easier for some. In a business setting, a preference for innovation refers to a willingness and inclination toward experimentation and creativity when developing and introducing new products and services (Lumpkin & Dess, 2001). Innovation needs also proactivity, proactive individuals scan the environment for opportunities, show initiative, and persevere until they bring about change (Bateman & Crant, 1993).

Studies indicate that innovative persons are persistent (Hurt et al., 1977; Sandberg et al., 2013), self-confident, open to experience, original, independent and have tolerance for ambiguity (Barron & Harrington, 1981, Patterson, 1999; West, 1987; George & Zhou, 2001; West and Wallace, 1991; as in Andersson et al., 2004). Innovators are also willing to change (Hurt et al., 1977), eager to try new ideas (Rogers & Shoemaker, 1971), and they have tendency to advance problem solving (Scott & Bruce, 1994). Additionally, they have the ability to inspire others and build networks (Akrich et al., 2002). Concerning personality, there have been noted positive correlations between openness, extraversion, and creativity (Bender et al., 2013; Hughes et al., 2013).

Innovative individuals and entrepreneurial intentions

Entrepreneurial orientation includes innovativeness, risk-taking, proactiveness, autonomy and competitive aggressiveness. It has been shown to influence firm performance, profitability, growth and product innovation in entrepreneurial firms (Johan & Dean, 2003; Avlontis & Salavou, 2007; Moreno & Casillas, 2008; Tang et al., 2008). Harris and Gibson (2008) found that personal control, innovation, self-esteem and achievement with respect to business involvement were correlated with intentions to become an entrepreneur (Harris and Gibson, 2008). Additionally, several researches indicate that past experience with family business is linked with stronger entrepreneurial attitudes (Harris & Gibson, 2008; Zampetakis et al., 2009; Roberts & Robinson, 2010).

Florin, Karri and Rossiter (2007) have studied students' attitudes which promote entrepreneurship and found that innovation, nonconformity, proactive disposition, self-efficacy and achievement motivation are crucial in this regard. Other researchers studying students used a variety of measures for entrepreneurial attitudes that included a mixture of attitude and trait measures, often including items referencing risk-taking and innovativeness (Domke-Damonte et al., 2008; Langkamp-Bolton & Lane, 2011; Levenburg & Schwarz, 2008; Macko & Tyszka, 2009; Zampetakis et al., 2009) as well as proactivity (Langkamp-Bolton & Lane, 2011; Zampetakis et al., 2009). In addition to creativity and proactivity Zampetakis et al. (2009) found that the emotional intelligence is connected to entrepreneurial wishes.

Culture

Studies on national culture have found interrelationships between national culture and entrepreneurship (Hofstede, 1980; 2000; House et al., 2004). The description of culture as "the collective programming of the mind that distinguishes the members of one group or category of people from another'' (Hofstede, 2001), implies that cultural norms are manifested in individuals' values, norms, cognitions, motivations, beliefs and behaviors. Scholars have identified culture as moderating factor in career choice to be an entrepreneur and start a new business (Moriano et al., 2012; Thornton et al., 2011), theory of planned behavior constructs (Hagger et al., 2007), and entrepreneurial intentions (García et al., 2018).

Specific cultural dimensions are likely to strengthen or weaken the relationship between individual factors and entrepreneurial intent (Schlaegel & Engle, 2013). Looking at each of the relevant dimensions, we can identify theoretical and empirical support for this assertion. The relevant dimensions are power distance (PDI), individualism (IDV), masculinity (MAS) and uncertainty avoidance (UAI) (see Table 1).

PDI dimension expresses the degree to which the less powerful members of a society accept and expect that power is distributed unequally. Societies exhibiting a large degree of PDI accept a hierarchical order, control and obedience to those with power (Hofstede, 1980). Everybody has a place that needs no further justification. Previous studies demonstrate that high PDI promotes entrepreneurial activity (Busenitz & Lau, 1996) and that risk-taking propensity in entrepreneurship is moderated by PDI (Antoncic et al., 2018). We hypothesize that PDI will enhanced the relationship between individual factors and entrepreneurial intent.

IDV dimension of individualism refers to societies that prefer a social framework in which individuals are expected to take care of themselves and their immediate families. On the other

hand, collectivist societies take care of the larger extended family in exchange for loyalty. According to Hofstede (1980), IDV culture that emphasize "I" rather than "we" are more likely to demonstrate entrepreneurship. More recent studies have found positive relationships between IDV and entrepreneurship actions such as venture-capital investments (Gantenbein et al., 2019). We expect IDV to be related to entrepreneurial intent.

Uncertainty avoidance (UA) dimension expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. High uncertainty avoidance implies that the society exhibits strong beliefs and norms of behavior and is uncomfortable with new ideas and the unknown. One study has found a negative relationship between UA and different attributes of entrepreneurship such as innovation (Shane, 1993), risk-taking (Kreiser et al., 2010) and early-stage entrepreneurship (Arrak et al., 2020).

Masculinity (MAS) represents a preference for achievement, heroism, assertiveness, and material rewards for success. MAS has also been associated with traditional male values such as compensation, recognition and career advancement (Hofstede & Hofstede, 2005). These traits are somewhat perceived to be necessary in entrepreneurship. Numerous studies found support for this perception (Heilman, 2001). However, recent studies have pointed to sociocultural biases (Pecis, 2016) and gender blindness in research may conceal the gendered nature of innovation processes (Dheer et al., 2019). We expect MAS to be related to entrepreneurial intent.

In recent years, scholars have examined the interaction of various cultural dimensions and entrepreneurial attributes. Specifically, researchers have been interested in understanding how cultural dimensions affect innovativeness and proactiveness in the general process of becoming an entrepreneur.

Deckert & Schomaker (2019) found that as far as entrepreneurship is concerned, not all cultural dimensions are equal. Cultural dimensions influence national innovativeness via different mechanisms on the macro-, meso-, and micro-level of a specific country. Another study (Puia & Ofori-Dankwa, 2013) found empirical evidence to support the impact of culture and intra-cultural variations on national innovation. An early study by Mueller & Thomas (2001) found that entrepreneurial orientation that is described as a combination of internal locus of control and innovativeness, is more prevalent in individualistic, low uncertainty avoidance cultures than in collectivistic, high uncertainty avoidance cultures. A related study by Kreiser, Marino, Dickson & Weaver (2010) found evidence that uncertainty avoidance, individualism, and power distance have a negative impact on proactive firm behaviors.

Procedure

Sample

Sample was collected from 532 business students from various countries in higher education (universities of applied sciences and universities) during the years 2022-2021. Some of the respondents did not fill in the background information and thus the data used here is 364 respondents, but factor analyses were done with whole sample (see later). Also, when the background information was voluntary to fill, so if the respondents wanted to be totally anonymous, thus we do not have demographic information. The countries represented here

are presented in Table 1. Multicultural sample means respondents who have lived at least one year in two countries.

Table 1. Data distribution

Survey Instruments

Innovativeness and proactiveness Based on previous studies, sixteen questions were developed on innovativeness and proactiveness (Langkamp-Bolton & Lane, 2011). Likert scale was 1-7 (1=Never or almost never to 7=Always or almost always). Factor analyses (Varimax) produced 8 items for both dimensions. Reliability was high for both Innovativeness and Proactiveness.

Innovativeness items included the following: "How often do you look for opportunities to improve things?", "How often do you wonder how things can be improved?" "How often do you create new ideas?". Cronbach's alpha was 0.914 in Innovativeness.

Proactiveness items included the following: "How often do you try to convince people to support an innovative idea?", "How often do you put effort in the development of new things?", "How often do you make suggestions to improve current products or services?" Cronbach's alpha was 0.859 in Proactiveness.

The overall means for Innovativeness and Proactiveness were calculated.

Results

Innovation and Proactiveness and Cultural Differences

The means are presented in Table 2, where the means of Innovativeness and Proactiveness are presented in general. People who have lived in at least two countries in all three dimensions had the highest means. From a national culture perspective, Innovativeness was highest in the Baltic-countries (mean 4,63) and lowest in Middle and South Europe (mean 4,16). Proactiveness was highest in East Europe (mean 4,71) and lowest in Middle and South Europe (mean 4,30).

Table 2. Means of Innovativeness and Proactiveness in different cultures

Statistical analyses (Anova) indicated differences between cultures (see Table 3). Anova results indicated statistically significant differences between the dimension called Innovativeness and the whole factor called Innovativeness overall.

Post-hoc test (Tukey B) indicated more specifically that statistical differences occurred in case of Innovativeness between Middle&South Europe vs. East Europe, Baltic and Multicultural groups, indicating that latter ones are more innovative than Middle&South European people.

Table 3. Innovativeness and Proactiveness in different cultures. Analyses with Anova.

Conclusions

This study focused on innovation and entrepreneurship and culture, in order to investigate culture-related impact on innovation and proactiveness orientation.

According to these results the multicultural background fosters innovativeness. Earlier studies indicate that highly innovative persons are more likely to start their own business, thus fostering innovativeness would be important. One tool for that is to encourage students to do study exchanges in different countries to adapt to new environments and learn new ways to handle everyday situations. Also doing studies with people from other countries can be one way to foster innovativeness.

Cultural intelligence predicts adjustment in the new culture and in international teams it has multiple positive effects on leadership efficiency (Rockstuhl et al., 2011) and efficiency concerning negotiations (Imai & Gelfand, 2010). It has also been noted that the level of cultural intelligence gets higher when a person has international experiences (Laitinen, 2014). Similarly, according to this study it seems that international experiences raise peoples' innovativeness and proactiveness. In the future it would be interesting to study the connection of cultural intelligence and innovativeness&proactiveness.

It is possible that the millennial generation and beyond are increasingly experiencing a more global and digital culture that diminishes the influences of national cultural dimensions. These generations are gradually developing a more idiosyncratic culture shaped by their immediate social environments, digital space and peers. In addition, younger generations are likely better educated and worldly parents more focused on buttressing proactive achievement norms and values as they seek to prepare their children for a better world. Ultimately, the immediate social and educational environments are likely to play a more instrumental role in shaping cultural values.

Earlier studies indicate that innovation may be increased when creativity is supported and promoted in an organization, and even individuals "who lack the natural inclination to be creative may become creative" and the leaders are key in enabling this (Škerlavaj et al., 2014; Zhou & Hoever, 2014, p. 353). Collins and Cooke (2013) reported that when looking to increase performance, having a creative manager is particularly important for those individuals who are not particularly open to change. At the education, innovation capabilities should be encouraged in various forms, to encourage already innovative people to reach more and less innovative people to develop their innovative side also.

Limitations and Further Research

Our explorative findings open the door for more robust research on national culture and entrepreneurship. There is a need to test a model that incorporates all cultural dimensions and antecedents for entrepreneurship. Our study also focused on university students with higher education and multicultural exposure. It would be interesting to look at samples that are more representative of national populations. Finally, the results of our study do not lead to a conclusion on successful or failed entrepreneurship. This is a potential area for a panel study. Our study design has the usual limitations of sample size, convenience, mainly business students that are more likely to have ambitions of becoming future entrepreneurs.

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