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CULTURAL DIFFERENCES OF NEEDED QUALITIES TOWARDS ENTREPRENEURSHIP

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Abstract

This paper explores the link between culture and tailored entrepreneurial education, addressing how cultural differences, influenced by Hofstede's dimensions, impact entrepreneurial behaviour. The study involves 772 students from higher education institutions in the Asian, Baltic, and Eastern European regions, utilizing factor analyses and statistical methods to identify entrepreneurial qualities from Likert-scale evaluations of 13 items. Findings reveal notable regional differences, highlighting traits like courage in Japan and China, and risk-taking in the USA. This research underscores the need for context-sensitive strategies in entrepreneurship education, advocating for tailored support to overcome cultural barriers. Ultimately, it enriches understanding of how culture shapes entrepreneurial behaviour and informs strategies for multinational corporations and education curricula.

Research Paper

Keywords: Entrepreneurial Intentions, Cultural Differences, Entrepreneurial Qualities

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Introduction

Entrepreneurship is a key driver of economic development as it provides high labour force participation by attracting the youth to work on their choice and create social innovation. It is of fundamental importance as an outcome of job creation (Acs et al., 1999) and essential for national prosperity (Kourilsky and Esfandiari, 1997). The efforts are comprehensive and cover all major dimensions of the entrepreneurial process: legal, educational, institutional, communicational, financial, and industrial (Preiss and McCrohan, 2006, 2007; McCrohan et al., 2009; Mamilla et al., 2023). Additionally, entrepreneurship is an integral part of promoting the sustainable development of the countries (Nuhu Yakubu et al., 2022). With the ongoing trend, social entrepreneurship has gained a lot of momentum.

The Global Entrepreneurship Report (GEM) report from 2022-23 presents the topic of entrepreneurial education as part of the schools' curricula and the support of universities in offering the framework and courses to start a business, from theory to practice. It has been noted that entrepreneurship education has a positive significant impact on entrepreneurial intentions (Ndofirepi, 2020; Noel, 2002; Varela and Jimenez, 2001) as well as innovativeness (Liu et al., 2019; Wei et al., 2019), which has been regarded as an important aspect of entrepreneurial mindset already by Schumpeter (1934). The importance of entrepreneurship education has been noted already 20 years ago (Aronsson, 2004; Smith, 2003) and the demand is growing. According to Hägg and Gabrielsson (2019), entrepreneurial education has become increasingly popular and has experienced exponential growth in interest over the past four decades.

As entrepreneurship education spreads beyond business schools (Welsh, 2014) the educators responsible for engaging in entrepreneurial activities are increasingly functioning at the internal and external boundaries of their organizational units (Swartz et al., 2024) and thus cultural knowledge is crucial to understand and educate the right way. For example, culture impacts gender and entrepreneurial possibilities (e.g., Bawakyillenuo and Agbelie, 2017). Interesting studies of indigenous entrepreneurship indicate that the dynamics of the surrounding culture and indigenous people's own culture impact on entrepreneurial approach; although indigenous entrepreneurs may live in a developed nation and adopt some mainstream business practices, most continue to adhere to ethnic identity and values (Ensign, 2023). There are many sub-cultures (e.g., Chinatowns) in various countries that interact continuously with the dominant culture, influencing and being influenced by it (Batrancea et al., 2019, 2022). Furthermore, new generations, increased access to knowledge, and globalization continue to shape and redefine these cultural interactions.

The entrepreneurial activity and success rates vary significantly across different societies. According to Dana (1997) and Ramadani et al., (2015), an entrepreneur is influenced by cultural factors, and opportunities for entrepreneurship are also shaped by the actions or inactions of other entrepreneurs.

Entrepreneurs respond to their environment, including the host society's culture (Dana & Salamzadeh, 2024). Entrepreneurship can also be influenced by social structures, such as stratification, as well as social barriers and government policies of the host society (Dana, 1997; Ramadani et al., 2015). Studies have shown that cultural differences have been identified as a

significant factor that affects entrepreneurial behaviour and its outcomes (Thiederman, 1991). Culture influences entrepreneurial activity in various ways, including the perception of risk, the role of the family and community, the attitudes towards failure and innovation, and the approach to competition and collaboration. This, consequently, affects the way people perceive and approach entrepreneurship. Thus, cross-cultural differences should be examined thoroughly when analysing entrepreneurial activity, particularly in the context of globalization, where entrepreneurs must navigate diverse cultural environments. To enhance entrepreneurship education, it is critical to understand student ussies across different cultures.

Thus, this study will study entrepreneurial education needs from different cultures in order to see if there needs to be different kinds of emphasis on entrepreneurial education differing from culture to culture.

Entrepreneurial Education

According to Donald Kuratko (2005), the entrepreneurial education trend began around 1970 in the USA, with universities expanding their role beyond technology transfer to contribute to, and lead in, entrepreneurial thinking, actions, and capital formation (Audretsch, 2014). Since then, entrepreneurial universities have contributed towards knowledge innovation, competitiveness, economic growth, and wealth creation globally (Fayolle & Redford, 2014; Mian, 2011). From a regional perspective, economic development studies position universities as catalysts for entrepreneurship, creating links that enhance regional and broader impacts through tangible means such as knowledge transfer and spin-offs (Gordon, Hamilton, & Jack, 2012; Guer-

rero, Cunningham, & Urbano, 2015; Larty, Jack, & Lockett, 2016). The significance of this entrepreneurial context is widely acknowledged both intuitively and theoretically (Shane & Venkataraman, 2000). However, defining context remains debated due to its multilevel conceptualization and diverse elements (Hitt et al., 2011). Entrepreneurship literature categorizes context into five domains: social, spatial, institutional, historical, and temporal (Scott, 2006). These categories have underpinned extensive research elucidating connections between institutional, regional, and national cultures and entrepreneurial possibility (Stenholm et al., 2013), the influence of spatial conditions and local milieu on entrepreneurial activity (Audretsch & Belitski, 2017), temporal dynamics impacting actions (Alvarez & Barney, 2007), and the entrepreneur's interaction within their social context shaping opportunities (Aldrich & Martinez, 2001).

With these categories in mind, innovation-based entrepreneurial education necessitates the enhancement of teaching staff within an ecosystem to continually develop the talents of students for the foundation and future growth and progress (Ruskovaara & Pihkala, 2015). Klofsten (2000) emphasized the impact of training and entrepreneurial education on actual behaviour, while Volkmann (2004) also highlighted the importance of the design of entrepreneurial teaching for its success. Recognizing the importance of context in entrepreneurship involves understanding the interconnectedness between the entrepreneur and their environment. To enhance entrepreneurial competency, it's crucial to delve deeper into how context influences the development of skills and competencies required (Thomassen et al., 2020). Furthermore, recognizing the interdependencies between the entrepreneur and

their context (Aldrich & Ruef, 2006) underscores the importance of comprehending how context factors into entrepreneurial competence development. Curiously, however, limited attention has been directed toward integrating context into entrepreneurial pedagogy and instructional approaches (Fayolle et al., 2016).

According to Laukkanen (2022), the belief system can influence entrepreneurial education. The study investigates the beliefs held by aspiring micro-entrepreneurs regarding entrepreneurship. In this case, the cognitive methods could measure the cumulative experiences, local culture and exposure to media and higher-level knowledge, defining the theory of planned behaviour. The belief systems can support setting knowledge targets and tracking progress, hence the theory of planned behaviour providing cognitive tools for developing even further entrepreneurial education. Using comparative causal mapping to reveal the entrepreneurs' belief systems the results are consistent with the entrepreneurs' attitudes and intentions.

Another point of view regarding entrepreneurial education is supported by Hägg (2021) pointing out that should embrace failure, focus on education and training, and accommodate the work in the present moment. Entrepreneurial education should facilitate student growth and value creation, enabling them to thrive in both personal and collective settings. The paper explores the development of prudence in entrepreneurial education. The relationship between enterprise and entrepreneurship education is essential for fixing entrepreneurial behaviour and needs to be rethought.

Toth (2021) examines a research model exploring the role of entrepreneurial passion and compares freelancers and digital entrepreneurs with

traditional knowledge workers. This study broadens the investigation of entrepreneurial passion beyond conventional entrepreneurship, highlighting the demand for digital jobs within evolving work paradigms. There is a positive correlation between entrepreneurial passion, heightened job demands, and work engagement.

Hofstede's Cultural Dimensions and Entrepreneurship

In this paper, we explore Hofstede's cultural dimensions and their relevance to entrepreneurship. Specifically, we examine how cultural dimensions affect entrepreneurial education and the needed qualities when educating towards entrepreneurship across different cultural contexts.

Culture comprises shared values and beliefs that influence socially endorsed behaviours (Hofstede, 1980). Accordingly, cultural values are likely to influence how much a society values entrepreneurial traits, such as critical and independent thinking and willingness to take risks (Hayton et al., 2002). The Hofstede cultural dimensions are widely used in research to understand the differences in cultural values among different countries (Hofstede, 1980). The Hofstede cultural dimensions framework provides a useful tool for understanding these cultural values. It has gained widespread acceptance and is used as a basis for comparing cultural differences worldwide. This framework identifies six cultural dimensions that can be used to describe differences in cultural values between countries. These dimensions are individualism vs. collectivism, power distance, uncertainty avoidance, masculinity vs. femininity, long-term vs. short-term orientation, and indulgence vs. restraint.

Individualism vs. collectivism dimension concerns the degree to which individuals in a society prioritize personal interests and needs (individualism) over those of the group (collectivism). In essence, it reflects the expectation regarding whether individuals should primarily attend to their own well-being or consider the welfare of the collective. In individualistic cultures, individuals are expected to prioritize their personal goals over group goals, while in collectivistic cultures, group goals take priority. In individualistic societies, people are more self-reliant and autonomous, while in collectivistic societies, people are more interdependent and rely on group cohesiveness. In individualistic societies, personal freedom is emphasized as a means to improve quality of life, with a focus on achievement and a high value placed on competitiveness. Ultimately, the goal is self-actualization, and people derive their identity from personal achievements (Hofstede, 1980; Thiederman, 1991). Research has linked individualism to entrepreneurial activity (Hayton et al., 2002), implying that individualistic cultures are more likely to show higher levels of entrepreneurial interest and activity than collectivistic countries. Studies also found a link between entrepreneurial qualities, such as innovativeness at the national level (Shane, 1993) as well as entrepreneurial characteristics at the individual level, such as having an internal locus of control and exhibiting risk-taking behaviour (Mitchell et al., 2000; Thomas and Mueller, 2000). Based on the nature of this dimension, one can argue that not only the degree of interest but also the motives of entrepreneurial behaviour may vary across individualistic and collectivistic cultures. Similarly, we advocate that in entrepreneurial education, individualistic cultures may encourage students to pursue their own entrepreneurial goals, while in

collectivist cultures, students may be encouraged to collaborate towards a shared entrepreneurial objective.

Power distance refers to the extent to which members of society accept the unequal distribution of power (pluralist vs elitist society) (Hofstede, 1980). This dimension assesses how much the less powerful members of society tolerate and anticipate unequal power distribution. In cultures with high power distance, individuals are expected to show respect and deference to those in positions of authority. In low power distance cultures, however, individuals expect equal distribution of power, and authority figures are not treated with as much respect. Studies suggest that low power distance has been associated with entrepreneurship (Hayton et al., 2002). They claim that high power distance cultures are less likely to exhibit high levels of entrepreneurial interest and activity than low power distance cultures. Moreover, high power distance societies may generate challenges for entrepreneurial activities relating to access to resources. These allow us to postulate that entrepreneurship flourishes more freely in low power distance cultures. Consequently, we also suggest that in entrepreneurial education, high power distance may limit the ability of students to challenge authority and express innovative ideas. We put forward the idea that low power distance, on the other hand, may encourage students to express themselves and challenge established norms.

Uncertainty avoidance pertains to a society's tolerance for uncertainty and ambiguity. This dimension gauges the level of discomfort that members of a society feel in uncertain, ambiguous, or unstructured situations. In countries with high uncertainty avoidance scores, individuals are prone to heightened anxiety and stress when encountering such circumstances. Therefore, in

these cultures, individuals are less tolerant of ambiguity and are more likely to avoid risk (Hofstede, 1980). In fact, the perception of risk varies across cultures, affecting the level of entrepreneurial activity. For example, in societies with high uncertainty avoidance, such as Japan, risk-taking behaviour is discouraged, and individuals prefer stable and secure jobs. On the other hand, in low uncertainty avoidance cultures, individuals are more tolerant of ambiguity and are more likely to take risks. In these low uncertainty avoidance societies, such as the United States, risk-taking behaviour is encouraged, and entrepreneurship is seen as an opportunity to achieve success. Given the financial, personal, and reputational risks involved in entrepreneurship, it is logical that countries with high uncertainty avoidance scores will have higher levels of entrepreneurial interest and activity, whereas countries with low uncertainty avoidance indexes will have lower levels. Empirical evidence also suggests that cultures with low uncertainty avoidance index have demonstrated higher national indicators of innovation and change, an outcome of potentially risky behaviour, as opposed to high uncertainty avoidance cultures (Davidsson and Wiklund, 1997). These findings are in line above arguments. Attitudes towards failure and innovation vary across cultures, affecting the level of entrepreneurship. In societies with high uncertainty avoidance, such as Japan, failure is stigmatized. Therefore, individuals are less likely to take risks and innovate, and consequently less engage in entrepreneurial activity. Similarly, individuals in low uncertainty avoidance cultures tend to possess entrepreneurial personality traits such as risk-taking, internal locus of control, and innovativeness (Mueller and Thomas, 2000; Mitchell et al., 2000). Hence, we claim that, in entrepreneurial education, high uncertainty avoidance may limit the ability of students to take risks and pursue innovative ideas, while

low uncertainty avoidance may encourage students to take risks and pursue innovative ideas.

The masculinity vs. femininity dimension measures how much a society prioritizes competitiveness and achievement (masculinity) or quality of life and nurturing (femininity). Cultures high in masculinity emphasize work-related objectives, competition, assertiveness, and materialistic pursuits such as income and advancement. In contrast, feminine cultures prioritize personal goals such as job security, quality of life, interpersonal relationships, empathy and fostering connections with others (Hofstede, 1980). As masculinity has been associated with entrepreneurial disposition (Pruett et al., 2009), individuals from masculine cultures are expected to exhibit higher levels of entrepreneurial interest and activity. When entrepreneurial education is concerned, we claim that masculine cultures encourage students to focus on competition and financial success, while feminine cultures may encourage students to focus on social entrepreneurship and community impact.

Long-term orientation vs. short-term orientation indicates how much a society values long-term planning and delayed gratification (Hofstede, 2001; Ulijn & Salamzadeh, 2024). In societies with a long-term orientation, individuals are more likely to plan, value perseverance and thrift, and delay gratification. In short-term-orientated societies, individuals tend to focus on immediate gratification. Entrepreneurship often requires long-term planning and investment, and entrepreneurs in short-term oriented societies may, therefore, greatly differ in their entrepreneurial attitudes, expectations, and needs. We believe that, in entrepreneurial education, long-term orientation may en-

courage students to plan for the future and pursue sustainable business models, while short-term orientation may encourage students to focus on immediate financial gain.

The indulgence vs. restraint dimension refers to the extent to which people in a society prioritize the gratification of their desires. It, in other words, measures the degree to which a society allows individuals to satisfy their desires and impulses. In indulgent cultures, individuals are allowed to satisfy their desires and impulses, while in restrained cultures, individuals are expected to suppress their desires and impulses. People in indulgent societies prioritize their desires, while in restrained societies, people prioritize their needs over their desires (Hofstede, 1991). Entrepreneurship may require indulgence in risk-taking and investment, and entrepreneurs in restrained societies may face challenges in accessing resources. Therefore, we believe that, in entrepreneurial education, indulgent cultures may encourage students to pursue business opportunities that satisfy their personal desires, while restrained cultures may encourage students to engage more in social entrepreneurship ventures.

Our study indicates that cultural dimensions significantly influence entrepreneurial attitudes and behaviours. Understanding this link is key to building effective entrepreneurial education that corresponds to cultural values and is tailored to the needs of the local communities. As seen, the review of the literature supports the proposition that cultural differences significantly relate to the differences in entrepreneurial behaviour across countries. Hofstede's cultural dimensions can have a significant impact on entrepreneurship and entrepreneurial education. Entrepreneurs in high power distance societies may face challenges in accessing resources, as power may be concentrated in

the hands of a few. In collectivistic societies, entrepreneurs may face challenges in accessing resources as the focus may be on group harmony rather than individual success. In feminine societies, entrepreneurs may face challenges in accessing resources as the focus may be on quality of life rather than achievement. In high uncertainty avoidance societies, entrepreneurs may face challenges in taking risks, while in short-term oriented societies, entrepreneurs may face challenges in accessing resources for long-term planning and investment. These suggest that cross-cultural differences play a significant role in shaping entrepreneurial behaviour, highlighting the need for entrepreneurs to develop cross-cultural competencies and adapt to the local cultural context to succeed in the global market. These factors also necessitate the personalization of entrepreneurship education and tailoring it to the needs of specific cultural contexts.

Pruett et al. (2009) studied entrepreneurial intentions with altogether 1000 students from the USA, China, and Spain, and found that culture has an impact on entrepreneurship intentions. Interestingly, they found out that the Chinese students had the highest entrepreneurial intentions, followed by Spanish and lastly Chinese. Regarding entrepreneurial education, respondents worried about their knowledge, business risks, and financing were significantly less likely to exhibit strong entrepreneurial intentions.

Sample and Methods

Sample

This study surveyed a total of 772 students from higher education institutions, encompassing both universities and universities of applied sciences. The data collection occurred between 2020 and 2022, with participants

drawn from various geographic regions, including Asia, the Baltics, and Eastern Europe. To ensure the validity of the analysis, students who had resided in multiple countries for over one year were excluded from the sample (Rahman et al., 2022).

Participation in the study was voluntary, and respondents were given the option to provide demographic details such as age, gender, and field of study. However, these details were not consistently provided by all participants, resulting in incomplete demographic data that was not utilized in the main analysis.

Geographically, the sample was diverse, and the regional data collected allowed for cultural analysis using Hofstede's cultural dimensions. The findings revealed significant differences across regions. For instance, Eastern Europe, China, and the Middle East exhibited the highest levels of Power Distance, reflecting hierarchical societal structures and centralized authority. In terms of Individualism, the United States showed the highest scores, indicating a preference for independence and personal achievement. Uncertainty Avoidance, a measure of a society's tolerance for ambiguity, was most pronounced in Japan and Eastern Europe, suggesting a strong cultural inclination toward structured and predictable environments. Masculinity, which captures the preference for achievement, competition, and material success, was highest in Japan.

In addition to the cultural dimensions, findings from the Global Entrepreneurship Report (2022–2023) provided further context for entrepreneurial activity in these regions. For example, the United Arab Emirates was found to have the highest early-stage entrepreneurial activity, demonstrating a robust startup culture and supportive business environment. In contrast,

China and Japan reported the lowest levels of such activity, possibly due to cultural or systemic barriers to entrepreneurship. Interestingly, regions such as Japan, the United States, Middle and Southern Europe, and the Middle East ranked the highest for entrepreneurial pursuits motivated by wealth and income generation. A unique finding emerged from Romania, where participants identified "making a difference to the world" as the primary purpose of entrepreneurship. Meanwhile, respondents from China and the Baltic states expressed a preference for stable employment within companies, attributing this preference to the scarcity of available jobs.

These findings underscore the rich cultural and regional diversity of the sample and highlight how societal values and economic conditions influence entrepreneurial attitudes and behaviours.

Table 1. Sample

Country	N	Power Distance (PDI)	Individualism (IND)	Uncer-tainty Avoidance (UA)	Masculinity (MAS)	Entrepreneurial activity according to GEM* Rank /49	Main motivation according to GEM**
Asia	178	80	20	30	66	44	D and A
Asia	133	54	46	92	95	43	B
Baltic	107	42	60	65	19	20 and 16	D
East Europe	103	90	30	90	42	34	A
USA	91	40	91	46	62	10	B and A
Middle and South Europe	66	35	67	65	66	30	B and D
Middle East	49	74	36	66	52	6	B
Nordic	43	33	63	59	26	na	na
All	722						

*GEM= Global Entrepreneurship Monitor 2022/2023 Global Report (p. 224-225). ** The motivation to start a business A= “To make a difference in the world”, B= “To build great wealth or very high income”, C=”To continue a family tradition”, D=”To earn a living because jobs are scarce” (GEM, p. 249)

Method and questionnaires

To investigate the qualities deemed necessary for entrepreneurship, the study utilized a structured statistical approach. Factor analysis with Varimax rotation was employed to identify underlying dimensions within the survey responses. This technique allowed for the grouping of related items into cohesive factors that represent distinct aspects of entrepreneurial qualities. To further analyse the differences between cultural regions, an analysis of variance (ANOVA) was conducted. Tukey-B post hoc tests were applied to determine statistically significant differences between specific regions, providing a deeper understanding of regional variations.

The primary focus of the survey was to assess the qualities, support, and attitudes that respondents believed were essential for becoming an entrepreneur. Participants were asked to respond to the question: *"What qualities, help, or attitudes would you need to become an entrepreneur?"* Thirteen items were evaluated using a Likert scale ranging from 1 (*Not needed at all*) to 7 (*Needed very much*). These items covered a broad spectrum of personal and external factors, including courage, risk-taking, motivation, self-esteem, optimism, resilience, persistence, decisiveness, and innovativeness, as well as external support such as mentorship, teamwork, knowledge of entrepreneurship, and having a viable business idea. The factor analysis revealed two distinct dimensions. The first dimension labelled **Personal Qualities**, encompassed attributes such as courage, risk-taking, motivation, and decisiveness. These qualities reflect the internal characteristics that individuals perceive as crucial for entrepreneurial success. The second dimension, labelled **Help from Others**, included items such as the need for mentorship, a collaborative team, additional knowledge about entrepreneurship, and a strong business

idea. This dimension highlights the importance of external support and resources in fostering entrepreneurship.

The reliability of these dimensions was assessed using Cronbach's Alpha, a measure of internal consistency. The **Personal Qualities** dimension demonstrated a high-reliability score of 0.925, indicating strong coherence among the items within this factor. Similarly, the **Help from Others** dimension showed a reliability score of 0.786, which is acceptable and indicates moderate consistency among the items.

By combining these two dimensions, the study provides a comprehensive view of the personal and external factors that respondents perceive as necessary for entrepreneurship. This dual perspective not only enhances our understanding of the qualities and support systems valued by potential entrepreneurs but also underscores the interplay between individual agency and external facilitation in entrepreneurial development.

Results

Table 2 shows the ANOVA and post-hoc test Duncan of cultural differences and Needed Qualities for Entrepreneurship. The F values are statistically significant indicating that differences in means in the two dimensions identified by the factor analyses among the sample participants are significant.

The post hoc-test Duncan divided sample countries into three subsets in Personal Qualities. The sample participants in each subset have similar means. In subset 1 participants from Nordic-Finland and the Middle East have similar means. The Sig. value of .419 further confirms that the differences in

means are non-significant as expected. Subset 2 shows that there are no significant differences between means of Middle East, Middle and South Europe and East Europe. Again the Sig. value of .082 indicates that differences in means are non-significant as the value is more than .05. Subset 3 consists of sample respondents from Europe, the USA, and Asia. The Sig. value is .124 once again indicating that the groups in the subset have non-significant means.

The post hoc-test Duncan of cultural differences and Needed Help from Outside for Entrepreneurship and divided sample countries into three subsets. The sample participants in each subset have similar means. In subset 1, participants from Nordic-Finland, Middle and South Europe, and the Middle East have similar means. The Sig. value of .213 indicates that the differences in means among these countries are non-significant, as expected. Subset 2 shows no significant differences between the means of the Middle East, the USA, and Europe. Again the Sig. value of .073 indicates that differences in means are non-significant as the value is more than .05. Subset 3 consists of sample respondents from the USA, East Europe, Baltic, and Asia. The Sig. value is .145, once again indicating that the groups in the subset have non-significant means.

In the case of the post hoc-test Duncan of Total: Needed Qualities for Entrepreneurship and Cultural Differences" divided sample countries into four subsets. The sample participants in each subset have similar means. In subset 1, participants from Nordic-Finland, Middle and South Europe, and the Middle East have similar means. The Sig. value of .052 indicates that the differences in means among these countries are non-significant, as expected. But the value is close to .05 and, therefore, must be interpreted cautiously.

The second subset has the Middle East and Europe. The Sig. value is .065, indicating that differences in means are non-significant. Subset 3 consists of sample participants from Europe, the USA, and the Baltic with a significance level of .235 which is again non-significant. Subset 4 has East Europe, the USA, the Baltic, and Asia, and as expected, the significance level is .174 indicating the groups in the subset have non-significant means.

All in all, one can conclude that the means in the Middle East group are significantly different from the means of Asia Japan and Asia China because the post-hoc test did not produce any subset with means from these countries. It appears that "needed qualities for entrepreneurship and cultural differences" are different in the Middle East compared to Asia (China & Japan).

Table 2. Anova and post-hoc groups (Duncan) of cultural differences and Needed Qualities for Entrepreneurship

	F-value	G1-Low (Mean)	G2-Medium (Mean)	G3-High (Mean)	G4-High (Mean)
A. Personal Qualities	3,824**	- Nordic (5,14) - Middle East (5,30)	- Middle East (5,30) - Middle and South Europe (5,60) - East Europe (5,64)	- Middle and South Europe (5,60) - East Europe (5,64) - Baltic (5,71) - USA (5,77) - Japan (5,87) - China (5,93)	-
Sig.		0,419	0,082	0,124	
B. Help Outside	4,183**	- Nordic (5,17) - Middle and South Europe (5,36) - Middle East (5,41)	- Middle and South Europe (5,36) - Middle East (5,41) - USA (5,61) - East Europe (5,64) - Baltic (5,71)	- USA (5,61) - East Europe (5,64) - Baltic (5,71) - China (5,87) - Japan (5,90)	-
Sig.		0,213	0,073	0,145	
C. Total	4,297**	- Nordic (5,16) - Middle East (5,32) - Middle and South Europe (5,49)	- Middle East (5,32) - Middle and South Europe (5,49) - East Europe (5,64)	- Middle and South Europe (5,49) - East Europe (5,64) - USA (5,70) - Baltic (5,71)	- East Europe (5,64) - USA (5,70) - Baltic (5,71) - Japan (5,89) - China (5,90)
Sig.		0,052	0,065	0,235	0,174

* p < .05, ** p < .01, *** p< .001

The two tables below (Tables 3 and 4) can be read together. These two tables show the results of the ANOVA statistical analysis. The first of the above two tables shows the mean values of the various “Needed qualities”

estimated for each country included in the sample. The second table shows the "Anova sig." value. A sig. value less than .05 indicates a statistical difference among the means. Some of the interesting results we get from these two tables are: 1) In Japan and China, courage is seen to be an important quality, 2) Risk taking is an important needed quality in the USA, 3) Motivation, self-esteem, optimism, and resilience are important needed qualities in China, 4) Persistence, Decisiveness, Innovativeness, Team building, and more knowledge are seen to be important qualities in Japan.

Table 3. Needed qualities for entrepreneurship and cultural differences, statistical analyzes by Anova

	Anova sig.	**Post hoc (Duncan)**
Courage	0,005**	Japan, China > Baltic, East Europe, USA > Middle Europe, Nordic, Middle East
Risk-taking	0,051	USA>Baltic, China, Japan, Middle Europe, Middle East > Nordic
Motivation	0,014*	Baltic, Japan, East Europe, China, USA > Nordic, Middle Europe, Middle East
Self-Esteem	0,001**	China, Baltic, Japan, Middle Europe > East Europe, USA, Middle East > Nordic
Optimism	0,001**	China > USA, Middle Europe, Middle East, East Europe > Baltic, Nordic, Japan
Resilience	0,001**	China > Japan, USA, Middle Europe, Baltic > East Europe > Nordic, Middle East
Persistence	0,001**	Japan, China, East Europe, Baltic, USA, Middle Europe > Middle East, Nordic
Decisiveness	0,001**	Japan, China, USA, Baltic > East Europe > Middle Europe, Middle East, Nordic
Innovativeness	0,019*	Japan, China, USA >East Europe, Baltic, Middle Europe > Nordic
Mentor to Help Me	0,001**	Japan, China > USA, Middle East, East Europe, Baltic, Nordic, Middle Europe
Team to Build up the Business	0,001**	Japan, China, Baltic, East Europe, USA > Middle Europe, Middle East> Nordic
More Knowledge of Entrepreneurship	0,001**	Japan, China, Baltic, East Europe, USA; Middle East > Middle Europe > Nordic
Good Business Idea	2,43	Baltic, East Europe, Middle Europe, Nordic, China, USA, Japan > Middle East

Table 4. All items of needed qualities for entrepreneurship and different cultures

	Courage	Risk-taking	Motivation	Self-Esteem	Optimism	Resilience	Persistence	Decisiveness	Innovativeness	Mentor	Team	Knowledge	Good Business Idea
All	5,79	5,74	5,93	5,66	5,30	5,67	5,86	5,76	5,59	*5,29*	5,68	5,68	6,07
USA	5,74	5,96	5,80	5,37	5,59	5,70	5,82	5,83	5,82	5,24	5,58	5,54	6,08
Middle Europe	5,68	5,73	5,67	5,56	5,36	5,56	5,80	5,40	5,45	*4,82*	5,27	5,24	6,12
Baltic	5,79	5,85	6,23	5,79	5,10	5,52	5,82	5,82	5,63	4,95	5,81	5,75	6,30
EastEurope	5,77	5,60	5,96	5,44	5,22	5,38	5,83	5,57	5,72	4,96	5,78	5,71	6,13
Nordic	5,32	*5,18*	5,68	*5,16*	4,81	*5,09*	*4,91*	*4,98*	*5,16*	4,91	*4,70*	*5,00*	6,09
China	5,88	5,82	5,83	6,02	5,90	6,06	6,08	5,94	5,83	5,63	5,89	5,86	6,08
Japan	6,11	5,82	6,23	5,74	*4,67*	5,93	6,17	6,22	5,88	5,83	5,96	5,95	5,86
Middle East	5,22	5,40	5,62	5,36	5,27	5,00	5,33	5,07	5,23	5,09	5,27	5,47	5,80

Discussion

This study significantly contributes to filling gaps in the academic literature concerning the influence of culture on needed entrepreneurial qualities. While previous research has explored entrepreneurship from various angles, the interplay between culture and specific entrepreneurial traits remains a largely unexplored area. By examining the complex relationship between these areas, this research enriches the academic discourse in entrepreneurship while also deepening our understanding of how cultural factors shape entrepreneurial behaviour and outcomes, addressing a critical gap in the field. From the insights gained through our research, several key takeaways emerge

that shed light on the needed qualities for entrepreneurship and their intricate relationship with cultural disparities based on a diverse participant sample.

The cultural areas had statistically significant differences in all qualities needed for entrepreneurship, but one. The Good Business Idea was equally appreciated by all cultures. This research indicates that there are plenty of cultural differences in the entrepreneurial context that should be taken into consideration in entrepreneurial education. When looking at all 13 needed qualities, the first most important ones were 1) Good Business Idea, 2) Motivation and 3) Persistence, and the lowest means were 11) Innovativeness, 12) Optimism and 13) Mentor to help.

The findings of the study contribute to the primary objective of entrepreneurship education, which is to cultivate the entrepreneurial skills, mindset, and behaviour of students by demonstrating statistically significant differences in all qualities needed for entrepreneurship. Over the past years, research in this field has experienced a substantial surge, with numerous studies delving into curriculum and content, as well as examining student learning processes and outcomes (Nikou et al., 2022). There has also been considerable discussion about the significance of philosophical approaches to entrepreneurship education research (Brentnall and Higgins, 2022). However, this research primarily focuses on teaching content and curriculum design, student learning processes, and the use of diverse teaching methods. What has received less attention is the differences across a range of cultures. Important findings of this study contribute to closing this gap. This oversight is noteworthy because an improved understanding of entrepreneurship education increases the potential to stimulate innovation and drive economic growth in the discussed countries. A better understanding of the essential qualities for

entrepreneurship and their interaction with cultural dimensions can enhance the effectiveness of student learning. This, in turn, can lead to desired outcomes such as changes in entrepreneurial behaviour and attitudes, increased knowledge, and potentially, the creation of business ventures (Finkle et al., 2006).

Dana (2009, 2010, 2011, 2013) has also generated interest in religion as a factor explaining entrepreneurship and business. In this investigation, religion was not considered as an aspect, but in future studies, it would be interesting to see the impact of religion on entrepreneurial qualities and needs.

Theoretical implications

For practitioners and policymakers, the recognition of culturally driven variations in entrepreneurial qualities signifies a fundamental call for context-sensitive strategies. Tailoring entrepreneurship education and support programs to align with these cultural nuances should become paramount.

These findings suggest that Japan and China have very similar patterns in the entrepreneurial context, the only differences were in the qualities of Optimism and Resilience, where China rated needing these qualities more than Japanese. When looking the Hofstede's dimensions (1991) there were great differences, especially in Uncertainty Avoidance (Japan > China) and Masculinity (Japan > China), which both have been regarded as important aspects of entrepreneurship. However, according to these studies, both cultures seem to be quite similar in their needs for entrepreneurial education. This has been found also in Global Entrepreneurship Monitor 2022/2023 where both cultures were ranked among the lowest in entrepreneurial activity.

Risk-taking is a vital component of entrepreneurship in the USA. These two areas are vital for efficient entrepreneurship as they enable individuals to venture into the unknown, take calculated risks, and face uncertainty. US is among the highest in Hofstede's (1991) Individualism and among the lowest Uncertainty avoidance, thus the capacity to take risks is highly valued as a cultural quality and shows in these results also clearly.

Nordic (=Finland) were clearly lowest in Risk-taking, Innovativeness and Having a Team to build up the business. Low risk-taking can be due to Finnish culture's low masculinity, showing off is not appropriate in Finland. In 2022, Finland was rated as the ninth most innovative country (Neufeld, 2022) in the world and it may be the reason why Finnish people think that there are more important qualities needed in entrepreneurship than innovativeness - they might trust their innovation capabilities. Moreover, Finland is renowned for its reserved and introverted cultural traits (more than other Nordic countries), and silence is described as a Finnish "natural way of being" (Carbaugh et al., 2009) and as a valued skill in Finland (Smith and Bond, 1999). Silence is frequently attributed to Finns by both themselves and others in national stereotype studies (Pajupuu, 2005; Petkova and Lehtonen, 2005). This might be the one reason why having a team for becoming an entrepreneur might seem inefficient and an unpleasant way of working with Finnish people (Hosseini et al., 2022).

Similarly, while Japan and China rank among the highest when it comes to the importance of having Resilience, Persistence, Decisiveness and Innovativeness, the results reveal the Middle East to be significantly behind their peers when it comes to establishing a good business idea and having the persistence and resilience to see it through, qualities which are crucial for

overcoming obstacles and persevering in the entrepreneurial journey. In the case of Chinese and Persistence, our study is supported by Pruett et al. (2009), when Chinese respondents showed little concern about the potential for a heavy workload in entrepreneurship, as they ranked this barrier as the least important. Chinese culture is also among the lowest in Hofstede's Indulgence, thus hard working is highly appreciated. In the case of Japan, they have the highest points at Long-term Orientation, and thus Persistence, Resilience and Decisiveness were highly valued here.

These results are in accordance with Pruett et al. (2009) in the case of Innovativeness. Here the Japanese, Chinese and US students think that they would need innovativeness more than other cultures' students in their entrepreneurial path and similarly, Pruett et al. (2009) find out that the Chinese students regard as the third-most important barrier the lack of ideas of what businesses to start as a barrier to entrepreneurship. The Spanish respondents ranked this barrier seventeenth and the American respondents fell in the middle.

While it is beneficial for cultures to excel in certain qualities, imbalances across these areas can present several challenges. Firstly, cultures that highly emphasize qualities like courage, and risk-taking, but lack a corresponding focus on risk management might be prone to imbalanced decision-making. Entrepreneurs from these cultures may rush into decisions without fully assessing potential consequences, leading to impulsive actions. While boldness is an asset in entrepreneurship, recklessness can result in financial losses, damage to reputation, and setbacks that are difficult to recover from. Secondly, cultures that prioritize motivation and persistence may inadvertently encourage unhealthy work habits, potentially leading to burnout and

stress among their entrepreneurs. While these are valuable qualities, the relentless pursuit of goals without adequate self-esteem can have severe consequences on mental and physical well-being. Thirdly, cultures that value high levels of persistence, yet low levels of courage may struggle with inflexibility. Entrepreneurs from these cultures may become rigid in their thinking and unwilling to adapt to evolving circumstances. This can be particularly detrimental in fast-paced industries where agility and adaptability are key to survival. Lastly, several regions including Nordic, Middle Europe, and the Middle East were revealed to struggle in developing collaborative relationships. In an increasingly interconnected and interdependent world, the ability to work effectively within a team is an asset for entrepreneurial success. This lack of collaboration can result in strained relationships among business partnerships and team members, reducing their level of shared resources, market access, and synergies in product or service offerings, while also resulting in missed opportunities.

Finally, the findings of this study can inform the development of theoretical frameworks in entrepreneurial research. Scholars can use these findings as a foundation for creating models that integrate cultural variables into existing entrepreneurial theories, and by doing so, provide a more comprehensive understanding of entrepreneurial behaviour and decision making. Building on this study, researchers can also conduct comparative analyses across a broader range of cultures. By exploring how cultural influences vary across different regions, scholars can uncover additional cultural nuances and contribute to a richer understanding of global entrepreneurship. Comparative studies can also shed light on why certain cultures emphasize specific entre-

preneurial qualities, and how these qualities impact various aspects of entrepreneurship, from business creation to innovation and internationalization. Practitioners and researchers should recognize and address these cultural chasms while seeking to explore mechanisms behind cultural similarities and differences when it comes to entrepreneurship. This may include historical, sociological, and economic factors that underpin these cultural nuances. Alternatively, researchers can investigate whether cultural imbalances persist, shift, or align over time subject to cultural dynamics and economic conditions, and how these changes impact entrepreneurial success.

Practical implications

While this is by no means an exhaustive list, it underscores the important balance of these qualities, why they should be recognized, and further highlights why entrepreneurs and policymakers need to design customized strategies to help bridge these cultural divides. These insights allow for the crafting of more effective training and mentoring programs while exploring intricate mechanisms through which culture continues to shape mindset and behaviours. Indeed, incentives, regulations, and funding mechanisms should be culturally sensitive and aligned accordingly to encourage entrepreneurship across diverse populations. For example, building resilience can be integrated into entrepreneurship education through mentors who can share stories of their own struggles and how they overcame them. Peer support groups and mental health resources can also provide a safety net for entrepreneurs facing adversity. Similarly, for decisiveness and innovativeness, training programs can incorporate decision-making exercises, and innovation challenges to develop these qualities. Exposure to innovative environments such as start-up

incubators and accelerators can further inspire cultures to embrace innovation while establishing mentorship networks can encourage entrepreneurs to seek out mentors with experience in the area capable of sharing their advice and recommendations. Engaging in entrepreneurship ecosystems can also facilitate team building through networking events and co-working spaces for entrepreneurs who are seeking a mentor or struggling to build an effective team.

This study offers valuable insights and contributions to both practice and academia, providing actionable takeaways and avenues for further research. Firstly, the significant divergence in perceptions between regions such as the Middle East and Asia (among others) further underscores the complexity of cultural influences, significantly advancing our cross-cultural understanding in the realm of entrepreneurship. For multinational corporations, this research can guide market entry and expansion efforts, as understanding what qualities are valued in specific regions can inform product development, campaigns, and business models. For example, in cultures that prioritize innovation, companies may emphasize research and development to align with local preferences. Secondly, this study has significant implications for entrepreneurship education. These findings underscore the importance of teaching a well-rounded entrepreneurial mindset that encompasses a diverse set of qualities, rather than focusing solely on specific traits. Entrepreneurship educators can use these insights to refine their curricula and pedagogical approaches. For example, while risk-taking is essential, students should also learn risk-management strategies. Similarly, while motivation is valuable, students should understand the significance of self-esteem and well-being in sustaining their entrepreneurial journeys.

Thirdly, this study highlights the critical role of support structures in addressing imbalances in entrepreneurial qualities within cultures. Entrepreneurs and support organizations can use these insights to design more holistic and effective support ecosystems. Mentorship programs for example can serve as crucial guides for entrepreneurs, assisting them in achieving a well-rounded skill set by providing guidance not only on the technical aspects of entrepreneurship, but also on personal development, resilience-building, and cultural competence. These initiatives can be tailored to address specific cultural challenges and imbalances. Fourthly, this study reinforces the significance of understanding the qualities present in different cultures, which in turn, enhances cultural sensitivity among practitioners. This sensitivity promotes effective communication, and for businesses operating internationally, this skill is invaluable in navigating partnerships, agreements, and strategies. Moreover, it can even extend beyond external interactions by playing a crucial role in building inclusive and diverse organizational cultures. Companies that value and promote cultural sensitivity create environments where employees from various backgrounds feel respected and valued, enhancing team cohesion and creativity.

From a teaching perspective, academics can use this study's findings to develop a range of pedagogical materials such as case studies, course modules, and classroom discussions that explore the impact of culture on entrepreneurial qualities. By incorporating real-world examples and cultural scenarios, educators can prepare students to navigate the challenges and opportunities of entrepreneurship in diverse cultural contexts.

Limitations

While the diversity of the sample provides a broad basis for examining cultural and regional differences in entrepreneurial attitudes, there are several considerations regarding its representativeness and potential biases that warrant discussion. The sample was drawn exclusively from higher education institutions, which inherently focuses on a subset of the population that is likely to have greater access to educational resources, career opportunities, and exposure to entrepreneurial concepts. This focus on university students may introduce an upward bias in entrepreneurial attitudes, as individuals outside the academic sphere—such as those engaged in vocational training, early-career employment, or non-traditional education pathways—are excluded. Moreover, variations in how entrepreneurship is taught or emphasized across the sampled institutions could influence the respondents' perspectives. For instance, universities with established entrepreneurial programs or support structures may foster more favorable attitudes toward entrepreneurship compared to institutions where such support is absent or minimal. Nonetheless, these results show various cultural differences in an entrepreneurial context, and while we may not definitively explain these cultural differences, it's evident that they persist despite globalization. Indeed, it's clear that young individuals globally encounter comparable influences through various media and social platforms. The findings do not ascertain whether the emphasized quality is inherently valued within a specific culture or if it necessitates acquisition due to its absence. For instance, it remains uncertain whether Nordic individuals require explicit knowledge of entrepreneurship given their presumed inherent understanding of it. Moreover, it's important to highlight that the sample sizes per culture were relatively small, preventing definitive conclusions

from being drawn in this respect. However, within these constraints, compelling perspectives aligning with prior research and Hofstede's cultural dimensions were identified.

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