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Araştırma Makalesi / Research Article

## Decrypting Dynamic Interplay of Socio-Cultural Characteristics in Shaping Omani Undergraduate Students' Intentions Towards Enterprise Development

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### Decrypting Dynamic Interplay of Socio-Cultural Characteristics in Shaping Omani Undergraduate Students' Intentions Towards Enterprise Development

### İşkoliklik ve İşe Tutkunluk Kavramları Bağlamında İş-Yaşam Dengesinin İncelenmesi: Teorik Bir Perspektif

#### Abstract

Understanding how individuals develop entrepreneurial intentions is important for promoting entrepreneurial behavior. Therefore, the main goal of this study is to assess the impact of sociocultural characteristics on Omani undergraduate students' intentions regarding enterprise development. Empirical research is based on observed and measured events and derives knowledge from actual experience rather than theory or belief. Therefore, this study uses deductive and quantitative methodologies. Furthermore, a descriptive research approach was utilized because it describes the features of the population or topic under study. Furthermore, the purposive sampling approach, which utilizes non-probability sampling, was chosen as the sampling strategy. The sample was selected on the basis of the researcher's expertise and skills. In this study, a questionnaire developed by Venesaar (2014) was used with adjustments made to ensure validity and reliability. Four demographic variables were used to determine if there was a link between family income, father's occupation, education, students' study programs, and their perceptions of socio-cultural factors influencing entrepreneurship in Oman. Since all values are greater than 0.05, there is no significant relationship between family income, father's occupation, education, study program, and students' perspectives on sociocultural factors that influence entrepreneurship in Oman. My parents' positive attitude towards a career as an entrepreneur was significantly loaded into the first element of the ROTATED COMPONENT MATRIX; if I join the government, my family and friends will respect me, and entrepreneurs often attain greater social status and family duties by producing a consistent source of income that requires me to work, which is loaded into the second, third, and fourth elements. The loading values for these factors are 0.834, 0.816, 0.809, and 0.805, respectively. The study's chi-square results show no significant association between family income, father's occupation, education, and study programme on sociocultural factors influencing entrepreneurship in Oman, indicating that these factors do not significantly influence entrepreneurship. In the factor analysis, the first factor, heavily loaded, suggests that parents are not supportive of entrepreneurship, while government jobs attract respect, and entrepreneurs achieve higher societal positions. Moreover, the entrepreneurship course at college inspired them to develop business ideas, but the lack of parental support and encouragement hinders their entrepreneurial journey. Finally, sociocultural factors have a substantial influence on entrepreneurial intentions and, consequently, on the decision to establish a business. Thus, students' sociocultural elements should be considered when designing entrepreneurial training and education programs.

**Keywords:** Entrepreneurial intentions, Socio-cultural characteristics, Omani students, Enterprise development, Entrepreneurship

**Jel Classification:** N30, J53, M54

#### Özet

Bireylerin girişimcilik niyetlerini nasıl geliştirdiklerini anlamak, girişimci davranışı teşvik etmek açısından önemlidir. Bu nedenle, bu çalışmanın temel amacı sosyokültürel özelliklerin Ummanlı lisans öğrencilerinin işletme geliştirmeye yönelik niyetleri üzerindeki etkisini değerlendirmektir. Ampirik araştırma, gözlemlenen ve ölçülen olaylara dayanır ve bilgiyi teori veya inançtan ziyade gerçek deneyimlerden elde eder. Bu nedenle bu çalışmada tümdengelim ve niceliksel yöntemler kullanılmaktadır. Ayrıca, incelenen popülasyonun veya konunun özelliklerini tanımladığı için tanımlayıcı bir araştırma yaklaşımı kullanılmıştır. Ayrıca örnekleme stratejisi olarak olasılığa dayalı olmayan örnekleme yöntemini kullanan amaçlı örnekleme yaklaşımı seçilmiştir. Örneklem araştırmacının uzmanlığı ve becerileri temel alınarak seçilmiştir. Bu çalışmada Venesaar (2014) tarafından geliştirilen anketin geçerlik ve güvenilirliğini sağlamak amacıyla gerekli düzeltmeler yapılarak kullanılmıştır. Ailenin geliri, babanın mesleği, eğitimi, öğrencilerin çalışma programları ve Umman'da girişimciliği etkileyen sosyo-kültürel faktörlere ilişkin algıları arasında bir bağlantı olup olmadığını belirlemek için dört demografik değişken kullanıldı. Tüm değerler 0,05'ten büyük olduğundan Umman'da aile geliri, baba mesleği, eğitim, çalışma programı ve öğrencilerin girişimciliği etkileyen sosyokültürel faktörlere bakış açıları arasında anlamlı bir ilişki yoktur. Annemle babamın bir girişimci olarak kariyere yönelik olumlu tutumu, DÖNDÜRÜLMÜŞ BİLEŞEN MATRİSİNİN ilk unsuruna önemli ölçüde yüklenmişti; Hükümete katılırsam ailem ve arkadaşlarım bana saygı duyacaktır ve girişimciler genellikle benim çalışmamı gerektiren, ikinci, üçüncü ve dördüncü unsurlara yüklenen tutarlı bir gelir kaynağı üreterek daha yüksek sosyal statüye ve ailevi görevlere sahip olurlar. Bu faktörlere ilişkin yük değerleri sırasıyla 0,834, 0,816, 0,809 ve 0,805'tir. Bu çalışmaya göre sosyokültürel faktörler girişimcilik niyetleri ve dolayısıyla iş kurma kararı üzerinde önemli bir etkiye sahiptir. Bu nedenle girişimcilik eğitimi ve öğretim programları tasarlanırken öğrencilerin sosyokültürel unsurları dikkate alınmalıdır.

**Anahtar Kelimeler:** Girişimcilik niyetleri, Sosyo-kültürel özellikler, Ummanlı öğrenciler, İşletme geliştirme, Girişimcilik

**JEL Sınıflandırması:** N30, J53, M54

**Araştırma ve Yayın Etiği Beyanı:** Bu çalışmada, araştırma ve yayın etiği kurallarına uyulduğu yazarlar tarafından taahhüt edilmektedir.

**Yazar Katkı Oranları:** Birinci yazarın katkı oranı %100

**Çıkar Beyanı:** Yazarlar açısından ya da üçüncü taraflar açısından çalışmadan kaynaklı çıkar çatışması bulunmamaktadır.

## 1. Introduction

In today's society, entrepreneurship is essential to success, as it drives technological advancements and social development, creates jobs, and contributes significantly to economic growth (Shi et al., 2019). In addition, the importance of entrepreneurial behaviour for the socioeconomic development of nations has led to a substantial boost in entrepreneurial behaviour among citizens in recent decades (Mueller & Thomas, 2001). Many countries have realised the significance of entrepreneurship, which is the foundation for both economic growth and self-employment (Casson, 2006). The socialisation process, social networking, surroundings, parental support, and family business experience all have an impact on an individual's decision to become an entrepreneur (Hussain et al., 2022). According to Krueger (1993), entrepreneurial behaviour involves intention as the initial stage in a drawn-out and intricate process and is essential to comprehending the entire process of entrepreneurship. Thus, the primary determinant of business behaviour is intention. Therefore, understanding the entire process of entrepreneurship requires a unique grasp of the factors and circumstances that drive this intention. The research community has focused on the connection between culture and entrepreneurship. However, because of cultural diversity, which demonstrates significant variations in entrepreneurial activity among nations (Kelley et al., 2012), it is crucial to understand the variables that influence the degree of entrepreneurship in various nations and areas (Fernández-Serrano & Liñan, 2014). Thus, it is evident that culture plays a major role in explaining these variations (Davidsson & Honing, 2003). This is also true of the impact of cultural values on entrepreneurship.

The Cultural Dimension Model, developed by Hofstede in 1980, is a commonly used framework for explaining cultural variables (Hofstede, 1984). Time orientation is one of the dimensions of the model; short and long-term orientations constitute this dimension. The Seven Dimensions of Culture model developed by Trompenaars in 1993 is another well-known cultural model (Trompenaars & Hampden-Turner, 1997). According to this concept, people can be classified as past, present, or future-orientated; individuals with varying orientations respond to it in different ways. According to Fernández-Serrano & Liñan (2014), most research on sociocultural factors and entrepreneurship has been limited to individualistic and collective values, which has led to the observation that individualistic values typically have a positive impact on starting a business. However, it is important to realise that culture and society are complex entities and that the individualistic relationship between them and entrepreneurship does not fully capture their significance (Hofstede, 2001). Considering the aforementioned, there is a pertinent gap in the literature that prevents us from understanding the precise, profound, and long-term effects of culture and society on entrepreneurship. Bogan & Darity (2008) stated that an individual's socioeconomic characteristics, which define his or her behaviour, also impact his or her attitudes. Because of their educational background and life experiences, students have a different perspective on life than middle-aged and older people do. The situation they face enables them to view the environment differently than others do. On the other hand, Sarasvathy & Venkataraman (2009) argued that economic factors are more influential than socioeconomic factors on enterprise development. Similarly, Tang & Koeveos (2008) agree that the absence of entrepreneurship is not prompted by the prevailing sociocultural or institutional environment but by the absence of economic factors, especially the availability of capital.

The Sultanate of Oman's over-reliance on oil revenues and the lack of job opportunities for the ever-younger population are issues those policymakers frequently raise (Ministry of National Economy, 2015). While the Sultanate deserves praise for encouraging more people to pursue higher education in

recent years, one consequence is that an increasing number of graduates are now looking for rewarding careers that are not readily available (Global Entrepreneurship Monitor, 2017). The public sector will eventually become unsustainable and too expensive to absorb these graduates. Even though there are opportunities in the private sector, many of these roles are now held by foreign nationals because of specific skill requirements, and new graduates believe they do not match (Ministry of National Economy, 2015). Encouraging entrepreneurship as a way of expanding the private sector, creating jobs, diversifying the economy, and eventually reducing dependency on oil earnings is one possible solution to these issues (Global Entrepreneurship Monitor, 2017). Many analysts believe that the present needs of Oman are for graduates to change their career goals to become self-employed and lay the groundwork for starting their own businesses. In this context, emphasis should shift to entrepreneurial intentions, which are individual inclinations that could result in the founding of a business. Many factors impact entrepreneurial ambitions, but sociocultural components hold the most significance as they are essential to the establishment and functioning of society. Understanding these sociocultural components is essential for fostering successful entrepreneurial development in graduates to sustain robust economies and effective governance. Consequently, the main aim of this study was to examine how sociocultural characteristics affect Omani undergraduate students' intentions towards enterprise development.

This study is significant to various stakeholders in Oman, such as the Omani government, as they are aggressively trying to diversify the economy into non-oil sectors. The study will be beneficial to them and other stakeholders, such as the Ministry of Labour, educational institutions, parents of graduates, students, and educational institutions. So far, there has been no study in Oman on socio-cultural characteristics in shaping Omani undergraduate students' intentions towards enterprise development; therefore, the results of this study are valuable to the body of knowledge. A quantitative research approach was utilised to discover cause-and-effect correlations between variables using statistical techniques. This study used, a descriptive research design. Non-probability sampling, purposive sampling, was used. This study's sample size was 478 students drawn from Muscat, the Sultanate of Oman's capital. The respondents earned diplomas and bachelor's degrees from various colleges in Muscat. A questionnaire designed by Venesaar et al. (2014) was utilised; however, it was modified to better meet the needs of the study. The data was analysed using the weighted mean, rank, percentage, and frequency distribution. Additional statistical procedures included factor analysis, chi-square testing, KMO, Bartlett's test, and reliability statistics.

## **2. Literature Review**

Various authors have defined the term "intention" in convergent ways. According to Ajzen (2011), intentions express "*indications of a person's readiness to perform a behaviour*". Boyd & Vozikis (1994) & Bird (1988) defined entrepreneurial intention as an emotional state that guides and directs an individual's actions, experience, commitment, ideas, involvement, attention, activities, goal setting, commitment, and work-related issues towards the impersonation of entrepreneurial behaviour. Similarly, Thomas et al. (2014) clarified that entrepreneurial intention is not a 'yes or no' option; alternatively, it is a logical move from selecting self-employment over a company's paid job and committing to an entrepreneurial career.

## **2.1 Social Factors**

Entrepreneurship studies (Davidsson & Honig, 2003; Reynolds et al., 1999) have highlighted the importance of social factors, such as ethnic group membership, religious history, level of education, role models, job experience, and the entrepreneurial environment. According to Kanungo (1998), the sociocultural approach assumes that people with comparable settings will have related traits that can be used to distinguish an entrepreneurial character. Besides, Bogan & Darity (2008) stated that in the socio-demographic approach, entrepreneurs are seen as an outcome of the environment and, therefore, factors beyond their personal control. Similarly, Luthans (1995) found that, among all the factors that influence attitudes and intentions, cultural elements contribute to personality. Moreover, Robbins & Judge (2008) state that personality is an emotional process of motivation, learning, and perception. Luthans (1995) further suggested that social groups and families have the maximum influence, and the augmentation of family and social groups in directing culture is attributed to socialisation. Culture determines what an individual experiences and learns. The social environment must have an inventive spirit that generates creativity, innovation, and ideas to nurture entrepreneurialism. However, Robbins & Judge (2008) argued that a more diverse set of creative ideas is possible in a multicultural environment. He further declared that communities with high heterogeneity attract different types of people who generate excellent human capital levels. Additionally, Casson (2006) reported that human capital is a blend of experience, personal qualities, and abilities that helps create businesses that can contribute to business growth. Robbins & Judge (2008) concluded that the crucial factor is not the favourable climate, government policies, or culture; besides, the social environment's diversity creates entrepreneurialism. Furthermore, Mueller et al. (2007) supplement this point by stating that individuals encircled by high-quality human assets are aware of how to turn opportunities into start-ups. Nonetheless, Thomas and Mueller (2000) concluded that there is no significant correlation between diversity and start-ups.

### **2.1.1 Family Background**

According to Kuratko & Hodgetts (1998), parental role models are the most prominent determinants of entering an entrepreneurial career. Besides, Karimi et al. (2013) found that students with role models had a greater likelihood of undertaking entrepreneurial pursuits than those without role models. The authors further insist that the inclination towards entrepreneurship is higher if the role models are from within the family. Moreover, Schroder & Rodermund (2006) reported that the father, mother, and siblings are the focal role models. Many researchers recognise that individuals in a family enterprise environment are likely to begin their own businesses and succeed (Kuratko & Hodgetts, 1998). In other words, the authors' ideas suggest that entrepreneurship is interconnected with a family background. Besides, Reynolds et al. (1999) observed that students with entrepreneurial family backgrounds are inclined to be involved in self-employment and do not favour employment in large organisations. Moreover, Karimi et al. (2013) mentioned that family members are always a reservoir of support, both morally and financially, for latent entrepreneurs. Additionally, Schroder & Rodermund (2006) described socialisation as an individual's exposure to his or her immediate family and society from birth to adolescence. Individuals are expected to learn all behavioural patterns, norms, and customs that are customary and acceptable to family and social groups. Moreover, an individual's ambience and locality play essential roles in promoting feelings (Reynolds et al., 1999). To conclude, families with entrepreneurial activities provide more support and encouragement to potential entrepreneurs than do families without entrepreneurial backgrounds.

### **2.1.2 Social Networks**

A social network is a means to identify a chain of community connections. These connections can either speed up or slow down an entrepreneur's interactions with specialists, resources, and business

opportunities (Davidsson & Honig, 2003). According to Fernández-Serrano & Romero (2014), a social network community can help ease thought processes, connect with industry experts to clarify uncertainties, boost motivation, find new ideas, offer possible help, and provide support. Hoang & Antoncic (2003) state that social networks stimulate business growth by reducing transaction costs, creating business opportunities, and generating knowledge spillovers. Moreover, Davidsson & Honig (2003) stated that social networks help identify new business opportunities, such as new business model ideas and potential customers, and that interactions within social networks serve as an occasion for entrepreneurs to obtain information that may lead to new business opportunities. Furthermore, according to Bogan & Darity (2008), some of the challenges entrepreneurs' face include identifying promising prospects and mobilizing resources to exploit them. Social networks can help solve these challenges and improve the recruitment of skilled labour, access to capital, and resource mobilisation. In contrast, Fernández-Serrano & Romero (2014) stated that social network availability is less prevalent in developing countries than in developed countries.

### **2.1.3 Role Models**

Kolvereid & Isaksen (2006) stated that role models indirectly influence a person's intentions and behaviour towards entrepreneurship. Moreover, gender moderates the links between role models, attitudes towards entrepreneurship, and entrepreneurial intentions (Van Auken et al., 2006). Besides, Fishbein & Ajzen (1975) considered that demographic variables, such as gender, could affect the attitudinal and standardising determinants of intention. In addition, this study attempts to recognize the role of gender in entrepreneurship. Previous studies have paid relatively little attention to the moderating effects of role models on gender. However, Karimi et al. (2013) mentioned that role models in society have a significant impact on female students, but there is no attraction for male students. In contrast, Kolvereid & Isaksen (2006) stated that students' role models play a critical role in stimulating them to become entrepreneurs, for both females and males. In general, role models were more important for female students than for male students. Karimi et al. (2013) also suggested that male students concentrate more on the consequences of entrepreneurship. In contrast, female students are more susceptible to social factors, their families' views, and the judgement of role models about entrepreneurial intention and choice (Van Auken, 2006).

### **2.1.4 Economic Situation**

Entrepreneurship development depends on the familiarity, abilities, and knowledge of start-ups to confidently start a business (Tang & Koeveos, 2008). Sarasvathy (2001) stated that if the government could facilitate incubation centres and training sessions related to entrepreneurship, it would help individuals gain courage and venture into the business field. Besides, Meager (2003) mentioned that the government's economic policies, such as building a uniform industrial atmosphere and moderate inflation, can spur robust economic growth and are significant factors in promoting entrepreneurial development. Furthermore, according to Cooper et al. (1994), economic policies should include deregulation, tax benefits for start-ups, privatisation of key industries for healthy competition, and progressive strategies for private sector ventures to activate entrepreneurial development. Moreover, Meager (2003) argued that the government needs to create awareness of the value of entrepreneurship in a country through workshops, exhibitions, short films, practical sessions, and internships. In contrast, Sarasvathy & Venkataraman (2009) stated that easy access to resources (i.e., raw materials, human resources, and infrastructure facilities) is the most significant aspect of start-ups. Therefore, if governments want to encourage citizens to start businesses, they should focus on these areas. Tang & Koeveos (2008) stated that capital is an essential prerequisite for establishing an enterprise. Moreover, funding is presumably the most fundamental obstacle to entrepreneurship (Sarasvathy, 2001). However, studies conducted in Oman have identified various challenges faced by young entrepreneurs

to start their businesses or the challenges that Omani students encounter when selecting entrepreneurship as a profession. (Al-Shanfari, 2012; Tumati & Kumar, 2023).

### **2.1.5 Entrepreneurship Education**

The importance of entrepreneurship in a country makes colleges more accountable for providing students with the necessary entrepreneurial mindset and skills (Van der Kuip & Verheul, 2004). The responsibility of educational institutions has increased because entrepreneurship programs are crucial for the growth and revival of the economy, as job creation is possible through entrepreneurship (Matlay, 2009). Moreover, Fayolle & Liñán (2013) found that students who received entrepreneurship education had a significant impact on their intention to start a business later in life. Furthermore, Van der Kuip & Verheul (2004) stated that entrepreneurship education programs have a positive and incontestable impact on students. However, Oyugi (2015) concluded that entrepreneurship education programs have a limited effect on students, as most programs are theoretically based and there is less scope for exposure. On the contrary, a study conducted by Matlay (2009) pointed out that most graduates are satisfied with the outcomes of the entrepreneurship education they have received and that it is helpful to start a business at a later stage of life.

Entrepreneurship education signifies a unique pioneering approach in Oman and Arab states. According to Al Shabibi (2020), entrepreneurship education has received increased attention in Oman, and the government has adopted specific steps to encourage entrepreneurship education. Entrepreneurship can accelerate Oman's economic growth at a higher pace (*Oman Observer, 2017*). Many might accept that entrepreneurship has a more vital role in any country since it can be an economic progress engine, a job creator, and a source of social enrichment. Entrepreneurship is a new transformation that involves endless creativity and modernization. It is a significant driver of economic growth, innovation, and competitiveness in many nations. The Ministry of Higher Education drafted a key strategy for promoting entrepreneurship in Oman in 2014 (Oman Education Council, 2014). According to the plan, all HEIs will integrate entrepreneurial skills into education beginning in the 2015–16 academic year through a course that underpins an entrepreneurial mindset. One of the significant recommendations of the SME Development Symposium is to introduce entrepreneurship in all disciplines and promote entrepreneurial activities. The MoHE was tasked with commencing and coordinating this decision through a committee represented by the country's higher education sector (Oman Education Council, 2014). Studies of entrepreneurship claim that education influences individuals' cultural values and entrepreneurship (Cambell et al. 2003). For example, the way people are educated from an early age and the transferable skills acquired during higher education play a significant role in establishing characteristics generally associated with entrepreneurial behaviour (Al Shukaili et al., 2019).

### **2.1.6 College Environment**

Pruett et al. (2009) stated that a conducive college atmosphere that offers expert knowledge, deliverable skills, and motivation for entrepreneurship is a crucial factor that influences students' entrepreneurial intentions and attitudes. Similarly, Marques et al. (2012) found that a positive college environment for entrepreneurship development encourages students to choose an entrepreneurial career. Moreover, institutional guidance places more weight on entrepreneurial intentions than structural support, emphasising the value of entrepreneurship training in cultivating entrepreneurial pursuits in the economy (Pruett et al., 2009). Furthermore, Oyugi (2015) specified that colleges, universities, and higher education institutions play indispensable roles in providing specialised support, technical help, education, and training regarding entrepreneurial activities to present and future entrepreneurs. The development of entrepreneurial talent is essential for sustaining a

competitive advantage in the global economy brought about by innovation (Shi et al., 2019). Moreover, entrepreneurs' college experience significantly predicts their entrepreneurial attributes and motivation (Lope & Pihie, 2008). Furthermore, universities provide potential entrepreneurs with attitudes that enable them to take responsibility for their actions, be creative and innovative, and develop creativity in their daily lives (Marques et al., 2012). Similarly, universities can enhance students' latent entrepreneurial potential (Hussain et al., 2022).

Saeed et al. (2015) conducted a study in Oman and concluded that more than 60% of the respondents thought that it was too risky to start a business in Oman and that 59% believed that there was too much competition to start a business. Another remarkable finding is that 60% of the respondents did not know whether government support for starting a business was available in Oman. Moreover, 47% of the respondents believed that they did not know about the available opportunities. Almost 60% of the respondents believed that they lacked professional education to start a business. In contrast, according to a study by Tumati & Kumar (2023) on Omani undergraduate students' attitudes towards entrepreneurship, students (respondents) showed a remarkably high level of pro-entrepreneurial sentiment.

## **2.2 Cultural Factors**

According to Alshebami (2022), personality attributes vary across cultures. For example, there are differences between individualist cultures, such as those in North America, Australia, and Europe, and collectivist cultures, such as those in Africa, South America, the Middle East, and Asia. Luthans (1995) stated that individuals who live in independent cultures tend to believe that personal accomplishments, competition, autonomy, and liberty are significant in life. In contrast, individuals who live in collectivist cultures tend to appreciate respect for the elderly, group requirements, and social compatibility needs more than individual wants. These preferences affect an individual's personality in several ways. Moreover, Robbins & Judge (2008) observed that people living in individualist cultures respond positively to entrepreneurship. On the other hand, individuals from collectivist cultures are less inclined towards entrepreneurship and exhibit community-oriented personality traits (Davidsson & Honing, 2003).

Kreiser et al. (2010) indicated that entrepreneurial influences differ based on the demographic, personal, economic, and socio-cultural environment in which a person is born and raised. Moreover, Shane (2003) described that entrepreneurial action levels are related to the national culture. Furthermore, Hofstede (2001) mentioned that the cultural dimension helps to observe what specific entrepreneurial traits are and what national characteristics are. Besides, Hayton & Cacciotti (2013) specify that cultural values set the level of entrepreneurial action performed within a society as measured by risk-taking and independence readiness. Therefore, it is clear from previous research that the link between national entrepreneurial activity and cultural aspects of entrepreneurship must be studied to understand the essential influencing factors of entrepreneurship development. Thoughts, concepts, and knowledge are considered distinct factors that boost productivity (Robbins & Judge, 2008). According to Akhter (2020), start-ups' opinions and ideas should receive adequate consideration and support in all possible ways; otherwise, it is not easy to foster an entrepreneurial culture in any society. Similarly, Dauletova and Busaidi (2022) argued that cultural value orientations have a significantly larger influence on entrepreneurs' decisions to pursue or abandon entrepreneurial activities than economic or infrastructural factors. On the other hand, one of the main conclusions of Tumati & Kumar's (2023) study, which examined the challenges that Omani students experienced when deciding to pursue entrepreneurship as a career, was the lack of respect for society and culture among young people who chose to start their own businesses.

### **2.2.1 National Culture**

According to Hayton & Cacciotti (2013), a country's cultural system influences entrepreneurial behaviour only to a small degree; instead, investors, bankers, government financial aid, and friendly business policies play more significant roles in forming an entrepreneurial mindset. In contrast, Wagner (2007) identified that continuing entrepreneurs must confront the adverse perception of remaining losers since closing a business shows an individual's incompetence to run a company. Public opinion about business failures generates a start-up barrier for entrepreneurs, and if someone decides to open a new business, the odds of success are very low in the general public's eyes (Calza et al., 2020). To conclude, similar to the trait approach, the socio-demographic factors in the study of entrepreneurship have been probed for their conceptual weaknesses (Robinson et al., 1991). According to them, these factors produced discrepant and often contradictory results, and on top of that, these factors were perceived to be insignificant predictors of entrepreneurial behaviour. According to Krueger et al. (2000), it is not possible to predict who is inclined to become an entrepreneur based on sociocultural characteristics. Similarly, Robinson et al. (1991) state that entrepreneurship is significantly complicated by sociocultural factors. However, Fishbein & Ajzen (2010) claimed that socio-demographic factors, such as personality traits, can indirectly influence entrepreneurship; however, these factors alone cannot predict potential entrepreneurs' behaviour and actions. On the other hand, Calza et al. (2020) stated that if entrepreneurial endeavours are positive in a society, people tend to venture more into business.

Several studies, including those by Nayak et al. (2025), Badghish et al. (2023), Dubey & Sahu (2022), Ebabu Engidaw (2021), and Rosique-Blasco et al. (2016), stated that there is a relationship between students' socio-cultural characteristics and their intentions towards enterprise development; consequently, this study intends to see if that concept continues to be relevant to the Omani context.

H0: There is no significant association between family income and students' opinions of socio-cultural characteristics.

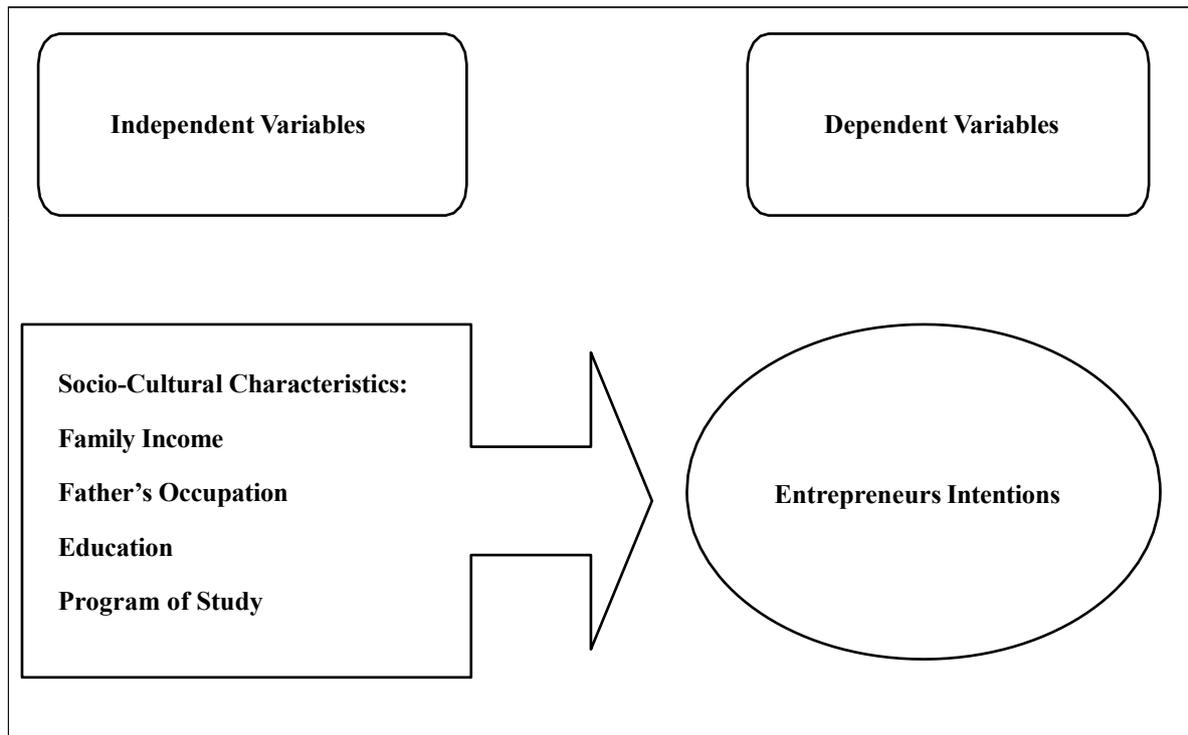
H0: There is no significant association between a fathers' occupation and students' opinions on socio-cultural characteristics.

H0: There is no significant association between education and students' opinions of socio-cultural characteristics.

H0: There is no significant association between the study program and students' opinions on socio-cultural characteristics.

### **2.3 Research Framework**

Research frameworks are crucial instruments because they ensure that research is logical, cohesive, and in line with its goals. They act as blueprints that assist researchers in planning their investigations and in making wise choices. The independent variables of the study, socio-cultural characteristics, include the family's income, father's occupation, education and program of the study, and the dependent variable is entrepreneurs' intentions.



**Figure 1:** Research Framework

### 3. Methodology

The deductive approach to research was employed in this study because it starts with a theory, draws hypotheses from it, tests these hypotheses, and updates the theory (Babbie, 2010). Additionally, a quantitative research approach was used because it quantifies the data and determines the cause-and-effect relationships between variables using statistical or mathematical techniques. Similarly, a descriptive research approach was employed in this study, as it demonstrated the characteristics of the population or phenomenon being studied. Moreover, according to Kothari (2010), descriptive research places more emphasis on the what of the study issue than the why. A purposive sampling method was used in this study. Purposive sampling is a non-probability sampling strategy that gathers samples based on a researcher's experience and skills (Bernard, 2002). A questionnaire devised by Venesaar et al. (2014) was used; however, it was adjusted to better match the demands of the study. The research ethics form was completed and submitted to the concerned department, and the respondents were briefed about data privacy and security. The sample size in this study was 478, and the sample was collected from Muscat, the capital city of the Sultanate of Oman. The questionnaires were distributed both online and physically. Most colleges in Muscat were approached for data collection, but only a limited number of them responded. The data was collected from students from five colleges in Muscat: Oman Tourism College, Middle East College, Higher College of Technology, the College of Banking and Finance, and the Modern College of Business and Science. The respondents were graduates with diplomas and bachelor's degrees from these colleges.

Any research project, according to Babbie (2010), must include defining issues or problems, developing hypotheses or solutions, gathering, arranging, and evaluating data, drawing conclusions, and forming inferences. Moreover, Creswell (2014) stressed that a thorough evaluation of the study's

findings is necessary to verify that they align with the initial hypothesis. Moreover, Kothari (2010) claimed that the investigator might review any preconceived notions following data analysis. The Cronbach's alpha for the study was 0.901, which is reliable and suitable for future investigations. The instrument's dependability requires a value of 0.700, and items are scored on a 5-point scale (1 = strongly disagree, 5 = strongly agree). The independent variables of the study were socio-cultural characteristics, including family income, father's occupation, education, and study program, whereas entrepreneurs' intentions were the dependent variable. The data were analysed using the weighted mean, rank, percentage, and frequency distribution. A statistical method called frequency distribution was used to ascertain both the distribution of respondents and the frequency of respondents who met a particular profile, such as age, gender, or marital status. This percentage was used to compute the proportion of respondents and the percentage of respondents who met a specific profile. To draw conclusions, additional pertinent statistical procedures were used, including factor analysis, chi-square testing, KMO, Bartlett's test, and reliability statistics.

#### **4. Findings And Discussions**

##### **4.1 Profile of The Respondent's**

Females accounted for 62.6% of the population, whereas males accounted for 37.4%. These findings do not match the national population of Oman (NCSI, 2020), which has a female population of 38.7% and a male population of 61.3%. In summary, most respondents were women. Furthermore, 69% of those surveyed were between the ages of 22 and 25. According to the NCSI (2020), 60% of Omani citizens are aged 21–26 years old. As a result, the estimations and findings were consistent. In addition, 14.4% of the respondents were between the ages of 26 and 30, 12.1% were between the ages of 31 and 35, and 4% were aged 36 years and older. Of the respondents, 40.8% lived in Muscat, 34.7% lived in villages, and 24.5% lived in other towns in Oman. In terms of education, 71.3% of the respondents had a high school diploma, while 28.7 percent had a college diploma. Of the participants, 24.7% took tourism and hospitality management courses as a part of their studies. With a 20.3% share, business management was preceded by accounting and finance (19.7%) and human resource management (18.4%). Nursing, agriculture, and engineering were studied by 8.6% of the students, while event management was studied by 8.4%. In 39.3% of the cases, the respondent's father was employed by the government, 15.1% owned businesses, and 14.2% retired. Additionally, 9.6% were engaged in agriculture, 11.7% in the commercial sector, and 10% were unemployed. The data show that up to RO 1000 constitutes 50.4% of the respondent's family's earnings. Of the respondents, 15.9% said that their family income exceeded that of RO 3001, and 18% were unsure. Furthermore, 8.2% said that their monthly earnings were between RO 2001 and RO 3000, while the remaining 7.5% said that they were between RO 1001 and RO 2000. As a result, 50% of the respondent families make less than RO 1000 each month.

**Table 1.** Demographic profile of the respondents

<b>A1. Gender</b>	<b>Frequency</b>	<b>Per cent</b>
Male	179	37.4
Female	<b>299</b>	<b>62.6</b>
<b>A2. Age (Optional)</b>	<b>Frequency</b>	<b>Per cent</b>
20-25	<b>332</b>	<b>69.5</b>
26-30	69	14.4
31-35	58	12.1
36 and above	19	4.0
<b>A3. Permanent residing area</b>	<b>Frequency</b>	<b>Per cent</b>
City, i.e., Muscat	<b>195</b>	<b>40.8</b>
Town	117	24.5
Village	166	34.7
<b>A4. Education</b>	<b>Frequency</b>	<b>Per cent</b>
Diploma	137	28.7
Graduation	<b>341</b>	<b>71.3</b>
<b>A5. Programme of the study</b>	<b>Frequency</b>	<b>Per cent</b>
Tourism and Hospitality	<b>118</b>	<b>24.7</b>
HR Management	88	18.4
Accounting and Finance	94	19.7
Event Management	40	8.4
Business Management	97	20.3
Other	41	8.6
<b>A6. Father's Occupation</b>	<b>Frequency</b>	<b>Per cent</b>
Own Business	72	15.1
Salaried Employee Private	56	11.7
Salaried Employee Government	<b>226</b>	<b>39.3</b>
Retired	73	14.2
Agriculture	41	9.6
Unemployed	48	10
<b>A7. Family Income</b>	<b>Frequency</b>	<b>Per cent</b>
Up to OMR 1000	<b>241</b>	<b>50.4</b>
OMR 1001 to 2000	36	7.5
OMR 2001 to 3000	39	8.2
OMR 3001 and above	76	15.9
Do not know	86	18.0

Cronbach's alpha was used to examine reliability across many dimensions, as shown in Table 2. The results are shown in the table below. The alpha coefficient for sociocultural elements influencing students' views of enterprise development was 0.901. The rating was high, and a result greater than 0.700 indicated that the items had very strong internal consistency.

**Table 2.** Reliability Statistics

Dimension	Cronbach's Alpha	No of Items
Socio-cultural characteristics that influence student attitudes towards enterprise development.	.901	16

Table 3 shows the sociocultural characteristics that influence students' intentions towards enterprise development. The highest mean score was recorded for "the place I live in has sufficient awareness of entrepreneurship" ( $\bar{X}$  4.51); Other mean scores included: my best friends think I should start a new business ( $\bar{X}$  4.44); the social attitude towards youth entrepreneurship is not respected ( $\bar{X}$  4.39); the culture in Oman is highly favourable towards entrepreneurial activity (4.29); and family responsibilities: to earn a constant source of money, forcing me to get a job ( $\bar{X}$  4.28). The respondents indicated that their closest friends advised them to start a new business since it is well known in the community where they live. They further assert that Oman's culture is particularly supportive of business endeavours. However, they did note that young people's social and cultural attitudes towards entrepreneurship are not very favourable.

The leading four mean scores for socio-cultural characteristics that influence student attitudes towards enterprise development are: family Responsibilities: My teachers think I should pursue a career as an entrepreneur ( $\bar{X}$  4.18); the entrepreneurship course at my college inspires me to develop ideas for a new business ( $\bar{X}$  4.10); Lack of support regarding business start-up by parents and family ( $\bar{X}$  4.09) Respondents stated that it is their obligation to provide a consistent source of income for my family and that they must therefore work. Furthermore, they believed that their lecturers pushed them to start their own business. They also confirmed that their college's entrepreneurship courses inspired me to think about fresh company ideas. However, they do notice their parents' and family members' lack of enthusiasm for starting a business. The respondents strongly agree with 2 statements: entrepreneurs have a positive image in Oman ( $\bar{X}$  4.08); I have sufficient business knowledge that is needed to be an entrepreneur ( $\bar{X}$  4.05). According to the respondents, Oman's businesspeople have a good reputation and the knowledge needed to succeed in their industry. These remarks indicate that Omani businesspeople have a good reputation and that the respondents have the necessary business skills to succeed as entrepreneurs.

The respondents agree with the following: I have good social networks that can be used when I decide to be an entrepreneur ( $\bar{X}$  3.97); if I start my own business, my friends and classmates will respect me ( $\bar{X}$  3.75); entrepreneurs generally achieve a higher position in society ( $\bar{X}$  3.72); and my closest family (uncles, aunts, and cousins) think I should pursue a career as an entrepreneur ( $\bar{X}$  3.71). The respondents believe that if they decide to become entrepreneurs, they will have strong social networks to draw on and that their family and friends will look up to them if they establish their own business. Additionally, they believed that entrepreneurs have a higher social status than the public. Furthermore, their immediate families (uncles, aunts, and cousins) think that they should start their own firms. The lowest mean scores reported by the respondents for socio-cultural characteristics influencing student attitudes towards enterprise development are If I join a government job, my family and friends will respect me ( $\bar{X}$  3.45); and my parents are positively oriented towards a career as an entrepreneur ( $\bar{X}$  3.39). Respondents said that if they worked for the government, their friends and family would respect them and that their parents were not excited about the potential to start a business.

**Table 3.** Socio-cultural characteristics influence student intentions towards enterprise development.

Socio-cultural characteristics	$\bar{X}$	Verbal Interpretation	SD	Rank
The place I live has sufficient awareness of entrepreneurship.	4.51	Strongly Agree	0.831	1
My best friends think I should start a new business.	4.44	Strongly Agree	0.782	2
The social attitude towards youth entrepreneurship is not respected.	4.39	Strongly Agree	0.839	3
The culture in Oman is highly favourable towards entrepreneurial activity.	4.29	Strongly Agree	0.853	4
Family Responsibilities: to earn a constant source of money, forcing me to get a job.	4.28	Strongly Agree	0.816	5
My teachers think I should pursue a career as an entrepreneur.	4.18	Strongly Agree	0.882	6
The entrepreneurship course at my college inspires me to develop ideas for a new business.	4.10	Strongly Agree	1.027	7
Lack of support regarding business start-up by parents and family.	4.09	Strongly Agree	0.960	8
Entrepreneurs have a positive image in Oman.	4.08	Strongly Agree	1.069	9
I have sufficient business skills that are needed to be an entrepreneur.	4.05	Strongly Agree	1.143	10
I have good social networks that can be utilised when I decide to be an entrepreneur.	3.97	Agree	1.260	11
If I start my own business, my friends and classmates will respect me.	3.75	Agree	1.186	12
Entrepreneurs generally achieve a higher position in society.	3.72	Agree	1.243	13
My closest family (uncles, aunts, and cousins) think I should pursue a career as an entrepreneur.	3.71	Agree	1.200	14
If I join a government job, my family and friends will respect me.	3.45	Agree	1.302	15
My parents are not positively oriented towards a career as an entrepreneur.	3.39	Agree	1.216	16
<b>Total</b>	<b>4.02</b>	<b>Strongly Agree</b>	<b>1.038</b>	<b>16</b>

Table 4 shows that the chi-square test was not significant (sig. value is  $0.511 > 0.05$ ); therefore, there is no evidence to reject the null hypothesis. This means that there is no significant association between family income and opinions on sociocultural characteristics. This implies that sociocultural characteristics are independent of family income.

**Table 4.** Chi-Square Test - Family's income \* Socio-cultural characteristics

Test	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.186	16	.511

Table 5 shows that the chi-square was not significant (sig. value is 0.791 > 0.05); therefore, there is no evidence to reject the null hypothesis. This means that there was no significant association between fathers' occupation and their opinions on socio-cultural characteristics. This implies that sociocultural characteristics are independent of fathers' occupations.

**Table 5.** Father's Occupation \* Socio-cultural characteristics

Test	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14.733	20	.791

Table 6 shows that the chi-square was not significant (sig. value is 0.810 > 0.05); therefore, there was no evidence to reject the null hypothesis. This means that there was no significant association between education and opinions regarding sociocultural characteristics. This finding implies that sociocultural characteristics are independent of education level.

**Table 6.** Education \* Socio-cultural characteristics

Test	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.592	4	.810

Table 7 shows that the chi-square was not significant (sig. value is 0.273 > 0.05); therefore, there is no evidence to reject the null hypothesis. This means that there was no significant association between the program of the study and their opinions on sociocultural characteristics. This means that sociocultural characteristics were independent of the study program.

**Table 7.** Program of the study \* Socio-cultural characteristics

Test	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	23.336	20	.273

Table 8 indicates that the chi-square is not significant because all are greater than 0.05, indicating that insufficient evidence exists to reject the null hypothesis. This suggests that there is no substantial association between family income, father's occupation, education, study program, and student perspectives on sociocultural aspects that influence entrepreneurship in Oman. This signifies that students' views on the sociocultural variables that foster entrepreneurship in Oman are unaffected by factors such as family wealth, father's occupation, education, or academic programs.

**Table 8.** Null Hypotheses

Hypotheses	Sig. Value	Result
H0: There is no significant association between family income and students' opinions on socio-cultural characteristics.	0.511	Accepted
H0: There is no significant association between a father's occupation and students' opinions on socio-cultural characteristics.	0.791	Accepted
H0: There is no significant association between education and students' opinions on socio-cultural characteristics.	0.810	Accepted
H0: There is no significant association between the program of the study and students' opinions on socio-cultural characteristics.	0.273	Accepted

Table 9 shows that factor analysis is a data-reduction technique. It also helps in structure detection among the variables and further helps in studying the crucial underlying factors that cause the maximum variation. Before proceeding to the factor analysis, the researcher first tested the eligibility of the data by checking the KMO-Bartlett's test, which is a measure of sampling adequacy. The KMO value was 0.933 >0.5 (indicating meritorious). Bartlett's Test of Sphericity indicated a measure of multivariate normality for a set of variables (a sig. value of less than 0.05 indicates multivariate normality and is acceptable for factor analysis).

**Table 9.** KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.933	
Bartlett's Test of Sphericity	Approx. Chi-Square	4858.788
	df	120
	Sig.	.000

Tables 10 and 11 present the PRINCIPAL COMPONENT MATRIX, which was rotated using the VARIMAX rotation technique to obtain the ROTATED COMPONENT MATRIX. The rotation of these factors helps better interpret these factors. Since the first factor in the ROTATED COMPONENT MATRIX is heavily loaded, my parents are not positively oriented towards a career as an entrepreneur. If I join a government job, my family and friends will respect me. Entrepreneurs generally achieve a higher position in society and family responsibilities by earning a constant source of money, forcing me to obtain jobs. The list of the final 2 factors, which collectively accounted for 61.68% of the variance in the data, is as follows:

**Table 10.** Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% Of Variance	Cumulative %	Total	% Of Variance	Cumulative %	Total	% Of Variance	Cumulative %
1	8.149	50.934	50.934	8.149	50.934	50.934	5.420	33.878	33.878
2	1.720	10.752	61.686	1.720	10.752	61.686	4.449	27.808	61.686
3	.939	5.867	67.554						
4	.744	4.650	72.204						
5	.629	3.930	76.134						
6	.534	3.339	79.473						
7	.498	3.113	82.586						
8	.427	2.669	85.255						
9	.410	2.561	87.816						
10	.371	2.317	90.133						
11	.334	2.085	92.217						
12	.283	1.770	93.988						
13	.267	1.670	95.657						
14	.252	1.573	97.230						
15	.237	1.482	98.712						
16	.206	1.288	100.000						

Extraction Method: Principal Component Analysis.

**Table 11.** Rotated Component Matrix<sup>a</sup>

Factor Name	Component	
	1	2
Family Responsibilities: to earn a constant source of money, forcing me to get a job.	.805	.195
My parents are not positively oriented towards a career as an entrepreneur.	.834	.191
My best friends think I should start a new business.	.758	.284
Entrepreneurs generally achieve a higher position in society.	.809	.202
If I join a government job, my family & friends will respect me.	.816	.193
My teachers think I should pursue a career as an entrepreneur.	.698	.272
My closest family (uncles, aunts, and cousins) think I should pursue a career as an entrepreneur.	.356	.543
If I start my own business, my friends and classmates will respect me.	.495	.617
I have sufficient business knowledge that is needed to be an entrepreneur.	.475	.611
Entrepreneurs have a positive image in Oman.	.637	.465
The place I live has sufficient awareness of entrepreneurship.	.406	.584
I have good social networks that can be utilised when I decide to be an entrepreneur.	.514	.542
The entrepreneurship course at my college inspires me to develop ideas for a new business.	.022	.825
Lack of support regarding business start-up by parents and family.	.111	.799
The social attitude towards youth entrepreneurship is not respected.	.221	.769

The culture in Oman is highly favourable towards entrepreneurial activity.	.448	.577
<b>Extraction Method:</b> Principal Component Analysis.		
<b>Rotation Method:</b> Varimax with Kaiser Normalization.		
a. Rotation converged in 3 iterations.		

Table 12 shows factor loading values of 0.834, 0.816, 0.809, and 0.805. First, my parents were not positively oriented towards a career as an entrepreneur. If I join a government job, my family and friends will respect me. Entrepreneurs generally achieve a higher position in society and have family responsibilities such as earning a constant source of money, which forces me to get a job. The second factor was heavily loaded with the following: The entrepreneurship course at my college inspired me to develop ideas for a new business (0.825), lack of support for business start-up by parents and family (0.799), and the social attitude towards youth entrepreneurship is not respected (0.769).

**Table 12.** Two Final factors

No	Factor name	Factor loading value
1	<b>My parents are not positively oriented towards a career as an entrepreneur.</b>	<b>0.834</b>
	If I join a government job, my family & friends will respect me.	0.816
	Entrepreneurs generally achieve a higher position in society.	0.809
	Family Responsibilities: to earn a constant source of money, forcing me to get a job.	0.805
2	<b>The entrepreneurship course at my college inspires me to develop ideas for a new business.</b>	<b>0.825</b>
	Lack of support regarding business start-up by parents and family.	0.799
	The social attitude towards youth entrepreneurship is not respected.	0.769

## 5. Discussion

According to Table 3's findings on the sociocultural characteristics that influence students' intentions towards enterprise development, there is sufficient awareness of entrepreneurship in the area where I live (4.51). Oman's culture is very supportive of entrepreneurship (4.29); entrepreneurs are seen favourably in Oman (4.08), and entrepreneurs typically rise to higher positions in society (3.72). Additionally, Table 12's results of the factor analysis indicate that two factors were highly loaded, one of which was "Entrepreneurs generally achieve a higher position in society (0.809)." These findings imply that students' sociocultural characteristics impact their intentions regarding enterprise development in Oman. They all arrived at the same conclusion: Oman's culture had positive perceptions of entrepreneurial tendencies. These results are consistent with Dauletova & Busaidi's (2022) assertion that cultural value orientations have a far greater impact on entrepreneurs' decisions to pursue or forgo entrepreneurial endeavours than do economic or infrastructural variables. The most powerful forces are based in the past and motivated by values unique to Omani and Islamic culture. Random sociocultural values require a systematic classification based on their origin and orientation. Further, Kreiser et al. (2010) indicated that entrepreneurial influences differ based on the economic and sociocultural environment in which a person is born and raised. Moreover, Shane (2003) described

how entrepreneurial action levels are related to national culture. Furthermore, Hofstede (2001) mentioned that the cultural dimension helps observe what specific entrepreneurial traits are and what national characteristics are. Hayton & Cacciotti (2013) specify that cultural values set the level of entrepreneurial action performed within a society as measured by risk-taking and independence readiness. Robbins & Judge (2008) stated that cultures that encourage thoughts, concepts, and knowledge are considered distinct factors that foster an entrepreneurial culture in any society. Previous research has shown a link between entrepreneurial activity and the cultural aspects of entrepreneurship. Based on the results in Table 3, the following were observed: my best friends think I should start a new business (4.44); my teachers think I should pursue a career as an entrepreneur (4.18); the entrepreneurship course at my college inspired me to develop ideas for a new business (4.10); I have sufficient business skills that are needed to be an entrepreneur (4.05); and I have good social networks that can be utilised when I decide to be an entrepreneur (3.97). Additionally, Table 11's factor analysis results indicate that two factors were highly loaded, one of which was "the entrepreneurship course at my college inspires me to develop ideas for a new business (0.825)." As the aforementioned clarifies, students believe that their educators, friends, colleges, and social networks assist them in acquiring the skills needed to start their own businesses. These findings are supported by nearly all subsequent studies: According to Pruett et al. (2009), one of the most important factors affecting students' entrepreneurial ambitions and mindsets is their collegiate environment, which supports entrepreneurship and provides expert knowledge, marketable skills, and drive. Marques et al. (2012) discovered that students are more inclined to pursue an entrepreneurial career if their institutions have a supportive atmosphere for entrepreneurship growth. Sarasvathy (2001) also highlighted the importance of entrepreneurship training in fostering entrepreneurial endeavours in the economy, stating that institutional advice gives greater weight to entrepreneurial intentions than structural assistance. Oyugi (2015) noted that colleges, universities, and other higher education establishments are essential for helping current and aspiring entrepreneurs by offering them specialist support, technical assistance, education, and training in entrepreneurial activities.

Moreover, Table 3 further shows the following: The social attitude towards youth entrepreneurship is not respected (4.39); family responsibilities: to earn a constant source of money, forcing me to get a job (4.28); lack of support regarding business start-ups by parents and family (4.09); if I join a government job, my family and friends will respect me (3.45); and my parents are not positively oriented towards a career as entrepreneurs (3.39). The findings suggest that the society, parents, and families of respondents do not have a positive view of entrepreneurship. Additionally, students choose to work because they feel that they must have a source of income to stabilise their lives. Finally, they receive respect from their friends and family if they are hired by the government. These findings are supported by nearly all of the following studies: Al-Shanfari (2012); Saeed et al. (2015); Akhter et al. (2020); Al-Harrasi et al. (2014); Tumati & Kumar (2022), Tumati & Kumar (2023), and Matlay (2009) claimed that although graduate students in Oman have an optimistic disposition towards entrepreneurship, a majority of them still work in the public and private sectors after graduation rather than launching their own company. To foster a positive mindset towards entrepreneurship, this circumstance calls for improving students' understanding of businesses and business risk, as well as strengthening entrepreneurial education at colleges and universities.

## 6. Conclusion

The primary finding of this study was that sociocultural factors in Oman have the ability to impact the formation of entrepreneurship in both positive and negative ways. The study concluded that the parents and family members of the respondents did not encourage their ambitions to start their own businesses. Concurrently, respondents asserted that they would receive more respect and acknowledgement from society if they were employed by the government. Other participants stated that they needed a job and a reliable source of money to meet their responsibilities towards their families; therefore, they preferred a job over an entrepreneurial career. Given these and other cultural barriers that Omani students must overcome, it is critical that stakeholders encourage students to choose entrepreneurship as a career by increasing their entrepreneurial ambitions. A more detailed study is required to explain why family members are not inclined to encourage their children to pursue entrepreneurial careers. Redesigning the socio-cultural ecosystem and its social values is necessary to break individuals free from established customs, unfavourable views, and traditional relationships. This also creates a new set of values that encourage and support the emergence of entrepreneurs. This offers society a choice to turn obstacles into possibilities.

The chi-square is not significant because all values are greater than 0.05, indicating that we fail to reject the null hypothesis. Therefore, the hypothesis (null) was accepted (i.e., not rejected). This suggests that there is no substantial association between family income, father's occupation, education, study program, and student perspectives on sociocultural aspects that influence entrepreneurship in Oman. This signifies that students' views on the sociocultural variables that foster entrepreneurship in Oman are unaffected by factors such as family wealth, father's occupation, education, or academic programs. Sociocultural variables that influence students' intentions towards enterprise growth include the level of awareness of entrepreneurship in the respondents' places of residence, indicating a high degree of awareness. Additionally, the views of respondents' best friends, who believe they should start a new business, are also significant; however, the overall social attitude towards youth entrepreneurship is not favourable.

In the factor analysis, the most strongly loaded component is that respondents' parents are not supportive of a career as an entrepreneur. If they take a government position, their families and friends will revere them. However, there is a belief that entrepreneurs often acquire a greater status in society, and most respondents prefer a job because of family obligations by providing a consistent source of income, pushing me to seek employment. Other considerations included the respondent's college entrepreneurship course, which inspired them to explore new business concepts. However, there is a lack of support from parents and relatives for business start-ups and societal views on youth entrepreneurship that are not respected. It is important to understand how individuals develop entrepreneurial intentions to encourage their entrepreneurial conduct, which in turn stimulates entrepreneurship and serves as a reliable indicator of subsequent behaviour. According to this study, both individual and sociocultural factors contribute significantly to the explanation of entrepreneurial ambition, and ultimately, the choice to launch a business. Therefore, when creating entrepreneurial education and training programs, care should be given to innovativeness, risk-taking tendencies, anticipated opportunities, and role models.

It is imperative that Oman's educational and training establishments tailor their entrepreneurial courses to the sociocultural contexts of the students they serve. Courses that are relevant and sensitive to cultural differences may be more successful than those that are one-size-fits-all courses. In addition, they promote and honour successful entrepreneurs from a range of socioeconomic and cultural

backgrounds. Students generally connect well to these role models' experiences, and can be encouraged and inspired by them. Moreover, financial resources such as entrepreneurial growth projects, grants, and scholarships are available to students from a range of socioeconomic categories. Similarly, mentorship initiatives should be created that provide advice and support by matching business owners with students from comparable sociocultural backgrounds, as well as industry expert lectures, internships, and visits. Further, educate families and communities about the advantages and opportunities that entrepreneurship must offer to get them involved in its promotion. Students may benefit from a more encouraging atmosphere as a result of this. Inspire students to engage in cross-cultural interactions and global exposure as these can extend their horizons and improve their entrepreneurship.

It is important to recognise the following limitations of the study: Due to the considerable regional variations in sociocultural traits in Oman, research findings might not be generally applicable. It is possible that the conclusions drawn from one setting do not apply to another. Moreover, it is difficult to prove a cause-and-effect link between sociocultural traits and student goals. Although correlations may be observed, complex study designs and management of confounding variables may be necessary to demonstrate causation. Moreover, cross-sectional studies are common and offer a glimpse at a certain point in time. Longitudinal studies that follow students over time will shed more light on how sociocultural traits change and impact goals. Sociocultural characteristics do not function independently. Therefore, it is difficult to separate their effects from those of other variables such as personality traits, educational attainment, environmental influences, economic situations, and technological improvements. Notwithstanding these drawbacks, studies on how sociocultural traits affect students' plans to develop their enterprises are important for comprehending the intricate interactions between social and cultural elements that influence entrepreneurs' goals and actions.

The primary indicator of business behaviour is intention. Therefore, studying the elements and variables that impact students' intentions is important to comprehend the full process of entrepreneurship. By following this line of reasoning, educational institutions, government agencies, and business entities can gain a better understanding of the process and implement measures that support entrepreneurial intention by studying everything that entrepreneurial intention implies, including values, mindsets, opinions, beliefs, and motives (Fishbein & Ajzen, 2010; Ajzen, 2011). From this study, it is clear that sociocultural contexts influence an individual's inclination towards entrepreneurship and foster ingenuity, risk-taking processes, and self-assurance (Pruett et al., 2009). As a result, to foster a supportive environment for its students, Oman's stakeholders must give these elements serious thought. Cultural values, which are fundamental to society, have an impact on entrepreneurial behaviour at the national level. Researchers have also demonstrated that national culture influences entrepreneurial behaviour and that there is a connection between national culture and entrepreneurial behaviour. Therefore, institutions in Oman, including financing agencies, incubators, SME development agencies, and educational institutions, are expected to understand the sociocultural characteristics of students, as their understanding of these characteristics is crucial for fostering entrepreneurship (Tumati & Kumar, 2023). When a country adopts the aforementioned values, people become more risk-takers, forward-thinking, ambitious, innovative, proactive, and capable of making snap decisions (Dauletova & Busaidi, 2022; Noguera et al., 2013).

## References

- Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology & Health*, 26(9), 1113-1127. <https://doi.org/10.1080/08870446.2011.613995>.
- Akhter, A., Hossain, M. U., & Al Asheq, A. (2020). Influential factors of social entrepreneurial intention in Bangladesh. *Journal of Asian Finance, Economics and Business*, 7(8), 645–651. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO8.645>.
- Al-Harrasi, Abir S., Al-Zadjali, Eyad B., Al-Salti, & Zahran S. (2014). Factors Impacting Entrepreneurial Intention: A Literature Review. *Journal of Social, Education, Economics and Management Engineering*, 8(8), 2354-2456.
- Al Shabibi, I. (2020). Planning for entrepreneurialism in a rentier state economy: *Entrepreneurship education for economic diversification in Oman*. Doctor of Philosophy. Cardiff University.
- Al-Shanfari, D. (2012), Entrepreneurship in Oman: A snapshot of the main challenges, paper presented at Enterprise Development Policies and Capacity-building in Science: *Technology and Innovation (STI)*, 16-18 January Geneva, 16-18 January.
- Alshebami, A. S. (2022). Psychological Features and Entrepreneurial Intention among Saudi Small Entrepreneurs during Adverse Times. *Sustainability (Switzerland)*, 14(13), 7604. <https://doi.org/10.3390/su14137604>
- Al Shukaili, A., Kassim, N., Al Suleimani, B., Zunaith, A., Mondal, S. & Kausar, Y. (2019). *Global entrepreneurship monitor: Oman national report 2019*. Global Entrepreneurship Monitor.
- Babbie, E.R. (2010). *The practice of social research*, 12th ed., Belmont, Calif: Wadsworth Cengage, Belmont, California.
- Badghish, S., Ali, I., Ali, M., Yaqub, M. Z., & Dhir, A. (2023). How socio-cultural transition helps to improve entrepreneurial intentions among women? *Journal of Intellectual Capital*, 24(4), 900-928. <https://doi.org/10.1108/JIC-06-2021-0158>, <https://doi.org/10.1108/JIC-06-2021-0158>.
- Bernard, H. R. (2002). *Research methods in anthropology: Qualitative and quantitative approaches* (3rd ed.). Walnut Creek, CA: Alta Mira Press.
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention, *Academy of Management Review*, 13(3), 442-453. <https://doi.org/10.2307/258091>.
- Bogan, V. & Darity, W. (2008). Culture and entrepreneurship? African American and immigrant self-employment in the United States. *The Journal of Socioeconomics*, 37(5), 1999-2019. <https://doi.org/10.1016/j.socec.2007.10.010>
- Boyd, N. G., & Vozikis, G. S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions, *Entrepreneurship: Theory & Practice*, 18(4), pp. 63-78. <https://doi.org/10.1177/10422587940180040>
- Calza, F., Cannavale, C. & Nadali, I.Z. (2020), “How do cultural values influence entrepreneurial behavior of nations? A behavioral reasoning approach”, *International Business Review*, 29(5), 2-13. DOI: 10.1016/j.ibusrev.2020.101725.
- Cambell, A, J., Birkinshaw, A., Morrison, B, & Van Basten. (2003) The Future of Corporate Venturing. *Sloan Management Review*, 45(1), 30-39.
- Casson, M. (2006). *The Oxford handbook of entrepreneurship*, Oxford University Press, Oxford, UK.

- Cooper, A.C., Gimeno-Gascon, F.J. & Woo, C.Y. (1994). Initial human and financial capital as predictors of new venture performance, *Journal of Business Venturing*, 9(5), 371-395. [https://doi.org/10.1016/0883-9026\(94\)90013-2](https://doi.org/10.1016/0883-9026(94)90013-2).
- Creswell, J.W., (2014). *A concise introduction to mixed methods research*. Sage Publications Inc, Thousand Oaks.
- Dauletova, V., & Busaidi, A. (2022). Socio-Cultural Factors as Driving Forces of Rural Entrepreneurship in Oman, *Journal of Small Business & Entrepreneurship*, 1(21). DOI: 10.1080/08276331.2022.21248 15.
- Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of business venturing*, 18(3), 301-331. [https://doi.org/10.1016/S0883-9026\(02\)00097-6](https://doi.org/10.1016/S0883-9026(02)00097-6).
- [Dubey, P.](#) and [Sahu, K.K.](#) (2022), "Investigating various factors that affect students' adoption intention to technology-enhanced learning", *Journal of Research in Innovative Teaching & Learning*, 15(1), 110-131. <https://doi.org/10.1108/JRIT-07-2021-0049>
- Engidaw, A.E. The effect of motivation on employee engagement in public sectors: in the case of North Wollo zone. *Journal of Innovation and Entrepreneurship*, 10, 43 (2021). <https://doi.org/10.1186/s13731-021-00185-1>
- Fayolle, A., & Liñán, F., (2013). The Future of Research on Entrepreneurial Intentions. *Journal of Business Research* 67(5),663–666. <https://doi.org/10.1016/j.jbusres.2013.11.024>.
- Fernandez-Serrano, J., & Liñan, F. (2014). Culture and Entrepreneurship: The case of Latin America. *Innovar*, 24, 169-180. <http://doi.org/10.15446/innovar.v24n1spe.47616>.
- Fernández-Serrano, J., & Romero, I. (2014). About the interactive influence of culture and regulatory barriers on entrepreneurial activity. *International Entrepreneurship and Management Journal*, 10, 781-802. <https://doi.org/10.1007/s11365-014-0296-5>.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behaviour: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fishbein, M., & Ajzen, I. (2010). *Predicting and Changing Behaviour: The Reasoned Action Approach*. Psychology Press (Taylor & Francis), New York.
- Global Entrepreneurship Monitor (2017). Entrepreneurship in Mena Region-A Mixed picture. Available from <https://www.gemconsortium.org/news/Entrepreneurship%20in%20the%20MENA%20region%20-%20a%20mixed%20picture>. Accessed: 10 October 2023.
- Hofstede, G. (1984). *Culture's Consequences*. Beverly Hills: Sage, CA.
- Hayton, J. & Cacciotti, G. (2013). Is there an entrepreneurial culture? A review of empirical research. *Entrepreneurship & Regional Development*, 25(9-10), 708-731. <https://doi.org/10.1080/08985626.2013.862962>.
- Hoang, H., & Antoncic, B. (2003). Network-based research in entrepreneurship— a critical review. *Journal of Business Venturing*, 18(2), 165-187. [https://doi.org/10.1016/S0883-9026\(02\)000 81-2](https://doi.org/10.1016/S0883-9026(02)000 81-2).
- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations across Nations* (2nd edition), Sage Publications, Thousand Oaks, California.
- Hussain, B., Zafar, S, A., & Fatima, T. (2022). Learning social entrepreneurship: Experiences of sociology students. *Cogent Business and Management*, 9(1). <https://doi.org/10.1080/23311975.2022.2032539>.
- Kanungo, R. N. (1998). *Entrepreneurship and innovation: Models for development*. New Delhi: Sage.
- Kelley, D. J., Slavica, S., & Michael D. H. (2012). The Global Entrepreneurship Monitor 2011 Global Report. [http://www.gemconsortium.org/assets/uploads/1330429931GEM\\_2011](http://www.gemconsortium.org/assets/uploads/1330429931GEM_2011)

[Global Re-port - EDIT FEB 2012.pdf](#). Accessed: 15 October 2023.

- Kuratko, D.F. & Hodgetts, R.N. (1998). *Entrepreneurship: A Contemporary Approach*. Orlando, U.S.A.: The Dryden Press, Harcourt Brace College Publisher.
- Krueger, N, F., & Carsrud, A. (1993). Entrepreneurial intentions: Applying the theory of planned behaviour, *Entrepreneurship and Regional Development*, 5(1), 316-323. <https://www.Researchgate.net/publication/232926814>
- Krueger N. F. Jr., Reilly, M. D, & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions, *Journal of Business Venturing*, 15 (5-6), 411-432. [https://doi.org/10.1016/S0883-9026\(98\)00033-0](https://doi.org/10.1016/S0883-9026(98)00033-0).
- Kolvereid, L., & Isaksen, E. (2006). New business start-up and subsequent entry into self-employment, *Journal of Business Venture*. 21(6) 866-885. <https://doi.org/10.1016/j.jbusvent.2005.06.008>
- Karimi, S., Biemans, H.J.A., Lans, T., Chizari, M., Mulder, M. & Mahdei, K.N. (2013). Understanding role models and gender influences on entrepreneurial intentions among college students, *Procedia - Social and Behavioural Sciences*, 9(3), 204-214. <https://doi.org/10.1016/j.sbspro.2013.09.179>.
- Kothari, C.R. (2010). *Research Methodology: Methods and Technique*, New Delhi: New Age International Publishers, p. 31.
- Kreiser, P.M., Marino, L.D., Dickson, P. & Weaver, K. M. (2010). Cultural influences on entrepreneurial orientation: The impact of national culture and risk taking and proactiveness in SMEs. *Entrepreneurship Theory and Practice*, 34(5), 959-983. <https://doi.org/10.1111/j.1540-6520.2010.0039>.
- Lope Pihie, Z.A. (2008). An analysis of academic experience to develop entrepreneurial attributes and motivation among at risk students. *The International Journal of Learning*, 14(6), 207-218. DOI:10.18848/1447-9494/CGP/v14i06/45363.
- Luthans, F. (1995). *Organisational Behaviours*, McGraw Hill Book Co., Sydney, Australia.
- Marques, C. S., Ferreira, J. J., Gomes, D. N., & Rodrigues, R. G. (2012). Entrepreneurship education: How psychological, demographic and behavioural factors predict the entrepreneurial intention. *Education and Training*, 54(8), 657-672. <https://doi.org/10.1108/00400911211274819>.
- Matlay, H. (2009). Entrepreneurship education in the U.K., *Journal of Small Business and Enterprise Development*, 16(2), 355-368. <https://doi.org/10.1108/14626000910956100>.
- Meager, N. (2003). An evaluation of business start-up support for young people. *National Institute Economic Review*, 186(1), 59-72. <https://doi.org/10.1177/002795010300100111>.
- Ministry of National Economy (2015). *2015 Statistical Yearbook*. Ministry of National Economy, Muscat, Sultanate of Oman.
- Mueller, S. L., & Thomas, A. S. (2001). Culture and entrepreneurial potential: a nine-country study of locus of control and innovativeness. *Journal of Business Venturing*, 16(1), 51-55. [https://doi.org/10.1016/S0883-9026\(99\)00039-7](https://doi.org/10.1016/S0883-9026(99)00039-7)
- Mueller. P. (2007). Exploiting entrepreneurial opportunities: the impact of entrepreneurship on growth. *Small Business Economics* 28, 355–362. <https://doi.org/10.1007/s11187-006-9035-9>.
- Nayak, M., Nayak, P. M., & Joshi, H. G. (2025). Determinants influencing the entrepreneurial success of MSMEs in emerging economies: a study of Indian women entrepreneurs. *Cogent Economics & Finance*, 13(1). <https://doi.org/10.1080/23322039.2025.2472585>
- NCSI (2020). National Centre for Statistics and Information. Available from <https://www.ncsi.gov.om/Elibrary/Pages/LibraryContentDetails.aspx?ItemID=/fm/apwu0drCXa/PQ1fExQ%3D%3D>. Accessed on 15 October 2023.

- Noguera, M., Alvarez, C., & Urbano, D. (2013). Socio-cultural factors and female entrepreneurship. *International Entrepreneurship and Management Journal*, 9(1). 183-197. <https://doi.org/10.1007/s11365-013-0251-x>.
- Oman Education Council (2014). *The decision of teaching a course of entrepreneurship as a requirement for all HEI students*. Muscat: The Education Council.
- Oman Observer (2017). OPAL, SME Fund to support Omani entrepreneurship. Available from <https://www.omanoobserver.om/opal-sme-fund-support-omani-entrepreneurship/>. Accessed 14 Sep 2018.
- Oyugi, J. L. (2015). The mediating effect of self-efficacy on the relationship between university student's entrepreneurship education and entrepreneurial intentions. *Journal of Entrepreneurship, Management, and Innovation*, 13(4), 31-38. <https://doi.org/10.1016/j.dhjo.2020.100923>.
- Pruett, M., Shinnar, R., Toney, B., Llopis, F., & Fox, J. (2009). Explaining entrepreneurial intentions of university students: a cross-cultural study. *International Journal of Entrepreneurial Behaviour and Research*, 15 (6), 571-594. <https://doi.org/10.1108/13552550910995443>.
- Reynolds, P. D., Michael, H., & Michael C, S. (1999). *Global Entrepreneurship Monitor*. Kansas City, Mo.: Kauffman Center for Entrepreneurial Leadership. Available from <http://www.gemconsortium.org/>. Accessed on 22 October 2023.
- Robbins, S. P., & Judge. T. (2008). *Organisational Behaviour*, Prentice Hall, USA.
- Robinson, P. B., Stimpson, D. V., Huefner, J. and Hunt, H. K. (1991). An attitude approach to the prediction of entrepreneurship. *Entrepreneurship Theory and Practice* 15(4), 13–31. <https://doi.org/10.1177/104225879101500>.
- Rosique-Blasco, M., Madrid-Guijarro, A., & García-Pérez-de-Lema, D. (2016). Entrepreneurial skills and socio-cultural factors: An empirical analysis in secondary education students. *Education+ Training*, 58(7/8), 815-831.
- Saeed, S., Yousafzai, S. Y., Yani-De-Soriano, M., & Muffatto, M. (2015). The role of perceived university support in the formation of students' entrepreneurial intention. *Journal of Small Business Management*, 53(4), 1127–1145. <https://doi.org/10.1111/jsbm.12090>.
- Schroder, E. & Rodermund, E. S. (2006). Crystallizing enterprising interests among adolescents through a career development programme: The role of personality and family background. *Journal of Vocational Behaviour*, 69(3), 494-509. <https://doi.org/10.1016/j.jvb.2006.05.004>.
- Sarasvathy, S. & Venkataraman, S. (2009). *Made, as well as found: researching entrepreneurship as a science of the artificial*. Yale University Press.
- Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academic Management Review*, 26, 243-288. <https://doi.org/10.5465/amr.2001.4378020>.
- Shane, S. (2003). *A General Theory of Entrepreneurship: The Individual-Opportunity Nexus*. Cheltenham, UK: Edward Elgar.
- Shi, L., Yao, X. & Wu, W. (2019). Perceived university support, entrepreneurial self-efficacy heterogeneous entrepreneurial intentions in entrepreneurship education. *Journal of Entrepreneurship in Emerging Economies*, 12, 205-230. <https://doi.org/10.1108/JEEE-04-2019-0040>.
- Tang, L. & Koeveos, P. (2008). A framework to update Hofstede's cultural value indices: economic dynamics and institutional stability. *Journal of International Business Studies*, 39(6), 1045-1063. DOI: 10.1057/palgrave.jibs.8400399.
- Thomas, A. S., & Mueller, S. L. (2000). A case for comparative entrepreneurship: assessing the

relevance of culture. *Journal of International Business Studies*, 31, 287-301.

- Thomas, A., Passaro, R. and Scandurra, G. (2014). The Perception of the Contextual Factors as Predictor of Entrepreneurial Intent: Evidence from an Empirical Survey. *Journal of Enterprising Culture*, 22(4), 375-400. <https://www.jstor.org/stable/155638>.
- Trompenaars, F. & Hampden-Turner, C. (1997). *Riding the Waves of Culture: Understanding Cultural Diversity in Business*, Second Edition, London & Santa Rosa, Nicholas Brealey Publishing limited.
- Tumati, R. & Kumar, J. NVR. (2023). The Challenges Faced by Omani Students when Choosing Entrepreneurship as a Career, *Journal of Tourism & Management Research*, 8(1), 1077-1093. DOI:10.5281/zenodo.7602538.
- Tumati, R., & Jyotikumar, N.V.R. (2022). Attitudes towards entrepreneurship among undergraduate students in Oman. M. Daskin, K. Pala, & M. Avsar, In 1. *International Tourism and Culinary Conference*, pages (PP. 502-519). Amasya University Press, Turkey. <https://conference2022.amasya.edu.tr/media/11028/proceeding-book-itcc22.pdf>.
- Venesaar, U. (2014). Students' attitudes and intentions toward Entrepreneurship at Tallinn University of Technology, (154): 111-112.
- Van der Kuip, I., & Verheul, I. (2004). Early development of entrepreneurial qualities: the role of initial education. *Journal of Entrepreneurship Education*, 2(2), 2003. <http://hdl.handle.net/2262/104293>.
- Van Auken, H., Stephens, P., Fry, F. & Silva, J. (2006). Role model influences on entrepreneurial intentions: A comparison between USA and Mexico. *The International Entrepreneurship and Management Journal*, 2(3), 325-336. <https://doi.org/10.1007/s11365-006-0004-1>.
- Wagner, J. (2007). *Nascent entrepreneurs* (pp. 15-37). Springer USA.