The impact of the international crisis on entrepreneurial intentions on refugees

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Abstract:

**Purpose:** We investigate the entrepreneurial intentions of a population under crisis — namely, recent Syrian refugees in Jordan — and Jordanian citizens to start small businesses during the COVID-19 pandemic. **Design/methodology/approach:** Using a structured two-part survey, data were collected through online self-reported questionnaires in which respondents subjectively reported self-perceptions. The first part dealt with respondents’ characteristics and the second with their entrepreneurial intentions. The survey took place in Jordan, sampling Jordanian citizens and Syrian refugees. A nonprobability sampling technique was used to collect the data. **Findings:** The results show that net desirability for self-employment, tolerance for risk and self-efficacy are related to entrepreneurial intentions. We find significant differences between the Syrian refugees and the Jordanian citizens in terms of risk-taking and self-efficacy as determinants of engagement in entrepreneurial activities. **Originality/value:** This study offers guidance to institutions working with refugees during times of crisis. Implications are discussed.

**Keywords:** entrepreneurial intention | immigrants | self-employment | startups

**Article:**

**Introduction**

In recent years, the intentions of potential entrepreneurs have been widely investigated to determine the motives behind new venture creation and how to create sustainable value (Nkongolo-Bakenda *et al.*, 2006). We propose a definition and advance propositions for sustainable value creation for globally oriented small and medium-sized enterprises (SMEs). Universal factors that influence the internationalisation of SMEs has been established no matter the location of the firm (Sadeghi *et al.*, 2019). However, research has somewhat overlooked refugees’ entrepreneurial intentions despite recent mass global migration events that have displaced approximately 80 million people (Edwards, 2019), such as the Syrian civil war and the recent COVID-19 crisis. Little is known about how such crises affect small business startups and
entrepreneurs (Herbane, 2010), let alone refugee startups and entrepreneurs during a crisis
(Abebe, 2020). Most studies on crises have focused on the economic recession of 2008 and its
impact on entrepreneurship and small business (Bartz and Winkler, 2016; Davidson and
Gordon, 2016; Dèvece et al., 2016; Giotopoulos et al., 2017; Williams and Vorley, 2015), with
an exception being Salamzadeh and Dana’s (2020) study that examines the challenges of Iranian
startups during the COVID-19 pandemic. The authors found six major types of challenges that
include financial, human resources, management, support measures, marketing and crisis
management.

The nation of Jordan has been a place for refugees, asylum and sanctuary since Biblical times.
Since the establishment of the modern Kingdom of Jordan, it has experienced three major
involuntary migration waves: Palestinian refugees in 1948 and 1967, who dramatically changed
the demographics of Jordan; Iraqi refugees in the mid-2000s; and, recently, Syrian refugees in
2011, along with refugees from 54 other nationalities (Turner, 2016; United Nations High
Commissioner for Refugees [UNHCR], 2019). The three major migration influxes to Jordan
have deeply affected the economic status and overall infrastructure of the country, which has
weak institutions, limited waterway access and few natural resources, in contrast with many of
the Gulf states. Refugees in Jordan have successfully started businesses in many sectors of the
economy as a means of economic integration. However, evidence regarding the motivation to
start businesses of refugees in a country versus host nation citizens is scant. Refugee
entrepreneurship has not yet been fully conceptualised as a unique entity but rather treated as
ethnic entrepreneurship activities distinct from migrant entrepreneurship, which is considered an
important and evolving topic in the literature (Skraba and Nowicka, 2018). However, Dana
(2009) developed a conceptual framework that includes four spheres of influence for self-
employment in immigrant communities; and identified orthodox entrepreneurship and reactive
self-employment as the two types of self-employment that emerges.

In line with Aljuwaiber (2020) and Dana (2000), who argues that research on entrepreneurship in
the MENA (the Middle East and North Africa) region is “increasingly important for
policymakers and businesses,” the main objective of this study is to explore entrepreneurship in
light of an important phenomenon in the MENA region: the recent, historic wave of human
migration resulting from the Syrian civil war. Specifically, we examine the relationship between
entrepreneurial intention and its predictors, including net desirability for self-employment,
tolerance for risk and self-efficacy for migrants (Syrian refugees) and Jordanian citizens.

We contribute to the economic and social literature on refugee entrepreneurship rather than
immigrant entrepreneurship by establishing why refugees are more or less likely to start
entrepreneurial ventures than host country citizens. Jordan lacks the level of government support
for entrepreneurship that the wealthier and more developed Gulf states offer (Saberi and
Hamdan, 2019). Accordingly, refugees and citizens of the less developed MENA region
countries may be incentivised to start new ventures for reasons related to survival. Palalić et
al. (2019) looked at refugees and startups in Oman. Therefore, this study offers guidance to
nongovernmental organisations in countries such as Jordan and Lebanon that are hosts of large
numbers of refugees in facilitating business creation for both citizens and refugees. Furthermore,
institutions worldwide that are working to support the integration of refugees into host country
economic systems may benefit from our findings through a greater understanding of refugees’
underlying motives to engage in entrepreneurial activities so that they can alter their policies and strategies accordingly, especially in light of the global pandemic.

Findings from a Global Entrepreneurship Monitor study show that, despite perceived difficulties, the entrepreneurial spirit is alive and well, and researchers have found that there are universal attributes of entrepreneurs, even in developing economies (Jafari-Sadeghi et al., 2019). Recessions provide opportunities for entrepreneurs, with necessity-based entrepreneurship increasing. (Ionescu-Somers, 2020; Jafari-Sadeghi, 2019). In the wake of the global recession from the COVID-19 pandemic, business leaders, innovators, entrepreneurs and investors are left with no choice but to anticipate a long period of challenging conditions. These conditions are not limited to a certain sector or group of people, although some have been hit harder than others, and refugees as a group have not been spared. The COVID-19 crisis has affected refugees’ lives and working conditions, as well as their entrepreneurial intentions and motivations. The pandemic also has had a catastrophic impact on the entrepreneurial activities of businesses. Many businesses have been forced to downsize or close altogether, and a devastating number of people have become unemployed. Refugees are a less-protected group in society, and therefore, are more vulnerable to economic shocks and fluctuations. The impact of the pandemic has forced governments and institutions to prioritise between supporting citizens and supporting refugees. Accordingly, refugees face many obstacles in their entrepreneurial activities due to the lack of support by otherwise supportive entities.

Moreover, the COVID-19 crisis has affected refugees’ entrepreneurial intentions to start businesses. In light of the pandemic, many governments have altered policy and banned refugee resettlement and asylum programs, with some countries banning asylum seekers altogether, which has left many refugees and asylum seekers in vulnerable and unsafe situations (Grant, 2020). Approximately 7.2 million refugees worldwide live in camps with limited water access, sanitation infrastructure, space and healthcare, which makes hygiene, distancing and combating the spread of this infectious disease an insurmountable task (Alemi et al., 2020; Brickhill-Atkinson and Hauck, 2020; Truelove et al., 2020). The pandemic has created a fragile situation, even more so than before, raising concerns about taking care of displaced populations living in areas with inadequate access to healthcare and hygiene materials (Grant, 2020; Júnior et al., 2020; Kassem and Jaafar, 2020). Above all, refugees have become an even more vulnerable segment of society because of the global pandemic (Greenaway et al., 2020; Vonen et al., 2020).

The following part presents the background literature on net desirability for self-employment, tolerance for risk, self-efficacy and entrepreneurial intentions for developing the hypotheses. The subsequent parts present the methods, the results of the data analysis, a discussion and conclusions of the findings. The paper finalises with the study’s theoretical and practical implications and limitations of the study.

**COVID-19 and refugees**

Entrepreneurship experts across the globe seem to embrace the view that the COVID-19 crisis is unprecedented in terms of its overall economic impact and the longevity of its negative effects (Ionescu-Somers, 2020) and fears from forthcoming economic crisis and recession (Nicola et al., 2020). With the spread of COVID-19, governments have established new rules to improve their
economies’ chance of survival. The COVID-19 pandemic implied enormous economic uncertainty and volatility jumps in many countries (Altig et al., 2020). Less noticed and discussed is the impact of the pandemic on entrepreneurial businesses, which are increasingly suffering from the vanishing sources of finance and its impact on the budget and the financial statements (Secinaro et al., 2020). It is estimated that more than 40% of new ventures will fall into the so-called “red zone,” with only enough cash for normal operations for three months (De Cuyper et al., 2020).

The effects of the pandemic have affected refugees around the world, and Syrian refugees in Jordan are no exception (Buheji et al., 2020). The Syrian conflict represents one of the largest refugee crises in the world, with more than 4.3 million refugees from Syria relocated in Canada, Europe, Turkey and Africa, as well as 1.5 million in Jordan. The focus of this study is on the entrepreneurial intentions of Syrian refugees in Jordan during a pandemic crisis. The pandemic is a fertile area of research that remains largely unexplored despite its clear significance (Buheji et al., 2020).

Background literature and hypotheses

In literature, an entrepreneur can be a native, a migrant, or a refugee. Although migrant and refugee entrepreneurship can be distinguished primarily by motives and the entrepreneurial environment, literature typically does not differentiate between the two. Dana and Morris (2007) provide an early, detailed model of immigrant entrepreneurship. Wauters and Lambrecht (2008) argue that refugee entrepreneurship should be treated separately in studies and note the need for a thorough and in-depth study of refugee entrepreneurship. Refugee entrepreneurship is a subcategory of immigrant entrepreneurship, based on Ensign and Robinson's (2011), who view the entrepreneurial activities of refugee businesses and their owners as encompassing all refugees setting up businesses in other countries. Given the historic wave of human migration across the world in the past decade, including a wave of refugees from Syria, Afghanistan, Iraq, Eritrea, Ethiopia and Yemen, studies are increasingly addressing refugee entrepreneurship independently (Alloush et al., 2017; Beehner, 2015; Bizri, 2017; Wauters and Lambrecht, 2008; Welsh et al., 2020). Bizri (2017, p. 9) argues that entrepreneur refugees are a distinct category from migrants, in that their entrepreneurial ventures are characterised by five unique features related to their deployment of social capital: “a ‘one-way-ahead’ attitude, a pseudo-family business perception, collective bootstrapping, a distinct network structure and opportunity-seizing proliferation.” Christiansen et al. (2019, p. 1) characterise refugee entrepreneurs as distinct from migrants by their “terms of voluntariness of departure and intended timeframe in the new location.”

The criteria to define a refugee was established at the 1951 Geneva Convention. A refugee is any person who “owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside of the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it” (United Nations High Commissioner for Refugees, 1951, p. 14). The World Bank (2016) also offers a simplified definition, describing refugees as those fleeing their country of
Refugees may have an impact on the local communities in which they live through their unique perspectives, past work experience, family networks and resilience. The effect of knowledge diffusion results from the migration process, and skilled immigrants can shape the economies of the host countries by introducing new products and skills locally and generating innovation and diversity in demand by customers (Arora, 2019; Bahar and Rapoport, 2018; Christensen et al., 2019; Shinnar and Zamantılı Nayır, 2019). Refugee entrepreneurship can provide favourable opportunities for educated individuals and their families, particularly in situations when accessing the labour market is difficult in the host country. This can mitigate potential conflict by changing the narrative of the refugee being a burden on society and, instead, supporting the idea that refugees can contribute to the host economy. This is especially important in developing countries suffering from chronic economic instability (Dumitrescu, 2019; Masson, 2017). Refugees are also characterised by a high level of resilience, deployed through entrepreneurship to achieve “resilience outcomes” to circumvent the adversity faced (Shepherd et al., 2020).

Refugees confront substantial challenges in the labour market that other migrants do not. Vinokurov et al. (2017) identify barriers to employment for refugees, such as discrimination from host country citizens, that lead to unemployment and under-employment. Self-employment may offer a means of escape from the domestic labour market in established ventures. The motivation to become an entrepreneur often arises when encountering a difficult set of circumstances, such as unemployment or dependence on public assistance. Conversely, refugees could confront a positive situation in which they decide to take advantage of an available opportunity. In this sense, Garnham (2006) argues that refugees are pushed through labour market frictions toward entrepreneurship.

Refugees also face unique challenges in terms of entrepreneurship (Dana, 2008). Fong et al. (2008) document the need for a holistic approach in supporting refugee entrepreneurs from government agencies to the local community. Alrawadieh et al. (2019) examine refugee entrepreneurship in the hospitality industry and similarly identify challenges at multiple levels, including administrative, sociocultural and financial.

Syrian refugees in Jordan

According to the United Nations Refugee Agency, more than 5.6 million Syrian civil war refugees have fled to host countries such as Jordan, Turkey, Lebanon, Egypt, Iraq and those in Europe (Edwards, 2019). Jordan, which had a population of approximately eight million prior to the conflict, presently hosts approximately 11.6% of all Syrian refugees. Despite this, studies on Syrian refugees in Jordan and other developing countries are few and far between. Of these, most of the entrepreneurial ventures existed outside the formal sector as unregistered businesses. Refai et al. (2018) examine the status of Syrian refugees outside Jordanian refugee camps qualitatively to assess the entrepreneurial engagement of refugees and better understand the factors motivating refugees to become entrepreneurs (e.g. survival). The study also highlights the complexities of the legal, social and financial conditions these entrepreneurs attempted to mitigate to start businesses. Pascucci (2018), who introduces the concept of economic
subjectivity in refugee entrepreneurship, examines young Syrian refugees in the information technology sector who viewed entrepreneurship as an empowerment mechanism to transform their lives from dependent to independent and productive.

Another study shows that while female Syrian refugees can benefit from the potential use of technology to increase their clients’ familiarity with their products, services and crafts, they find it difficult to gain access to the resources they need to do so (Hunt et al., 2017). Mehtap et al. (2015) conduct a pilot study of Syrian refugee entrepreneurs regarding opportunities, challenges and sources of startup funds to which they had access. They conclude that access to capital is the most critical obstacle Syrian entrepreneurs faced, followed by the feeling that the host citizenry was threatened by their entrepreneurial activities. Treating informal sector refugee entrepreneurship as an empowerment tool for Syrian female refugees, Mehtap and Al-Saidi (2019) examine their intentions and the challenges they faced. They note that female Syrian refugees are part of a conservative community with extensive cultural restrictions, and interviews revealed that they were motivated by both push and pull forces to start their home-based businesses. Other studies have focused on informal sector female entrepreneurship in general, emphasising the power of women in refugee communities to reverse societal gender roles to support their families (Alkhaled, 2019; Jabbar and Zaza, 2016).

Entrepreneurial intention

Entrepreneurial “intention” and “motivation” are terms used interchangeably to reflect individual planning to become an entrepreneur (Achchuthan and Nimalathasan, 2012). The first and most important step in the process of entrepreneurship is intention (Dheer, 2018). Entrepreneurial intention is the conscious psychological willingness to make a decision to be engaged in an entrepreneurial experience, to be self-employed, and to improve one’s conditions after evaluating outcomes and risks (Fuller et al., 2018). Previous literature is abundant in models and theories explaining entrepreneurial intention. The entrepreneurial event model (EEM) by Shapero and Sokol (1982) and the theory of planned behaviour (TPB) by Ajzen (1991) have served as the basis for many other models (Krueger et al., 2000). The EEM model aims to predict entrepreneurial intention using three determinants: perceived desirability, perceived feasibility and propensity to act (see Figure 1).

![The EEM model](source(s): Shapero and Sokol, 1982)

**Figure 1.** The EEM model (Shapero and Sokol, 1982)
Schlaegel and Koenig (2014) suggest that Ajzen's (1991) theory is a valuable theoretical framework used in entrepreneurial academic research today because it predicts entrepreneurial intention. This study uses EEM to test entrepreneurial intentions. We add citizenship status to the model as a moderator variable to test its effect on the relationship between the components in the model. We also include net desirability for self-employment as a variable. Net desirability for self-employment refers to the degree of enthusiasm and readiness to start a business rather than work for others or the extent to which one is motivated to be self-employed (Vuorio et al., 2018). It is a mindset affected by intrinsic and extrinsic factors — it occurs in advance of establishing an entrepreneurial venture and is based on one’s perception of the outcomes of such an act (Shapero and Sokol, 1982). Given that refugees face legal and societal barriers in the labour market, self-employment is an alternative to working low paid and unskilled labour jobs. We express our first hypothesis as follows:

**H1.** Refugee net desirability for self-employment is positively related to entrepreneurial intention.

Refugees are often roused to become entrepreneurs by push forces rather than pull forces; they are pushed into entrepreneurial activity by the circumstances they face or the necessity of entrepreneurship, which differs from opportunity-based entrepreneurship of the host country citizens, who are pulled by personal motivations. Therefore, H1 can be moderated as follows:

**H2.** Citizenship status (Jordanian citizen vs Syrian refugee) moderates the relationship between net desirability for self-employment and the intention to become an entrepreneur.

Ramoglou and Tsang (2016) conclude that immigrants have a higher tolerance for risk than host country citizens. Tolerance for risk is “the tendency of a decision-maker either to take or to avoid risks” (Sitkin and Pablo, 1992, p. 12). It is the inclination toward an action to take advantage of opportunities regardless of the uncertainty or risk (Nieß and Biemann, 2014; Stewart and Roth, 2001). Refugees’ risk tolerance behaviour may or may not differ from that of host country citizens, as it is a self-decision driven by the need to survive by improving the financial status and the need to assimilate into their new society (Sandberg et al., 2019). Refugees also seek to be financially independent and empowered, a characteristic that is often present among refugee populations (Alloush et al., 2017; Sabar and Posner, 2013; Sandberg et al., 2019). Accordingly, we argue that risk tolerance with regards to the entrepreneurial intention of refugees is greater than that of host country citizens:

**H3.** Refugee tolerance for risk is positively related to entrepreneurial intention.

**H4.** Citizenship status (Jordanian citizen vs Syrian refugee) moderates the relationship between tolerance for risk and the intention to become an entrepreneur.

Furthermore, entrepreneurial self-efficacy, or the extent to which a person believes in his or her capability of performing a task (Bandura, 1977, 1977), is one of the main components described in the entrepreneurial intention model and serves as a proxy for perceived feasibility (Ajzen,
2002; Boyd and Vozikis, 1994; Segal et al., 2005). The concept evolved from social learning theory and is a powerful indicator of confidence in one’s capability to accommodate and adapt to future challenges (Bandura, 2001; Fitzsimmons and Douglas, 2011). Several studies indicate that many refugees are educated, qualified, experienced and often motivated by past entrepreneurial experience (Obschonka et al., 2018; Wauters and Lambrecht, 2008). We use the following hypotheses to test the effect of self-efficacy on entrepreneurial intention of refugees vs host country citizens:

\[ H5. \] Refugee entrepreneurial self-efficacy is positively related to entrepreneurial intention.

\[ H6. \] Citizenship status (Jordanian citizen vs Syrian refugee) moderates the relationship between entrepreneurial self-efficacy and the intention to become an entrepreneur.

Figure 2 depicts the hypothesised relationships (Segal et al., 2005), where the entrepreneurial intention is the dependent variable, citizenship status is the moderating variable, and net desirability for self-employment, tolerance for risk and perceived feasibility (self-efficacy) of self-employment are the independent variables.

Figure 2. Proposed model of entrepreneurial intentions

Method

The study uses SPSS 26 software to obtain descriptive statistics, assess composite reliability and conduct correlation analyses. We used structural equation modelling (SEM) to test observant and latent variables. SEM, which incorporates path analyses for assessing the contribution of latent variables, incorporates linear regression and factor analysis into a proposed theoretical model to analyse the loadings of independent variables and their explanation of the proposed dependent variable. With SEM, researchers can fit more models into the same covariance matrix (Barrett, 2007).

Sample

The study used a structured two-part questionnaire. The first part dealt with respondents’ characteristics and the second with their entrepreneurial intentions. The survey took place in
Jordan, with a total sample of 445 respondents (242 Jordanian citizens and 203 Syrian refugees). We used a nonprobability sampling technique to collect the data. The convenience sampling technique investigates a population with similar traits, and the sample is known to the researcher (Vehovar et al., 2016). Data were collected through online self-reported questionnaires in which respondents subjectively reported self-perceptions. In order to justify the sample in multiple regression analysis, we used an alternative method of sample size calculation that has been suggested by Green (1991) as \( N > 50 + 8p \), where \( p \) is the number of predictors. Thus, based on Green (1991), both sample groups exceed this recommended threshold, and therefore, a sample of 445 should be adequate.

Instrument

This study follows Segal et al.’s (2005) work to test entrepreneurial intentions, with citizenship added to the model as a moderator variable to test its effect on the relationships between the components in the model. We used a structured questionnaire with a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) for all items in the construct. The questionnaire was translated into Arabic from English and sent to respondents using Google forms in order to obtain online responses. The instrument is a composite of items from previous studies and available in open-access documents.

Respondent demographics

Table 1 shows the respondents’ profiles. Of the respondents, 242 or 54.4% were Jordanian, and 203 or 45.6% were Syrian refugees. Regarding gender, 250 (56.2%) were women, and 195 (43.8%) were men. Most respondents were 21–30 years of age or 207 (46.5%) of the sample. More than half the respondents held a bachelors’ degree, and 40% were unemployed.

Table 1. Profile of the respondents

| Demographics | f  | %   | Demographics | f  | %   |
|--------------|----|-----|--------------|----|-----|
| Gender       |    |     | Citizenship  |    |     |
| Female       | 250| 56.2| Jordanian citizen | 242| 54.4|
| Male         | 195| 43.8| Syrian refugee  | 203| 45.6|
| Age          |    |     | Specialisation |    |     |
| Up to 20     | 23 | 5.2 | Business      | 101| 22.7|
| 21–30        | 207| 46.5| Engineering   | 39 | 8.8 |
| 31–40        | 131| 29.4| Humanities    | 71 | 16.0|
| 41–50        | 62 | 13.9| Medicine      | 70 | 15.7|
| More than 51 | 22 | 4.9 | Other         | 164| 36.9|
| Education    |    |     | Current employment status |    |     |
| No education | 19 | 4.3 | Employed      | 125| 28.1|
| Less than a high school diploma | 80 | 18.0| Housewife    | 1 | 0.2 |
| High school  | 71 | 16.0| Retired       | 8  | 1.8 |
| Bachelor’s   | 228| 51.2| Self-employed | 64 | 14.4|
| Master’s     | 44 | 9.8 | Student       | 50 | 11.2|
| Doctorate    | 3  | 0.7 | Unemployed    | 178| 40.0|
|              |    |     | Other         | 19 | 4.3 |
Results

To proceed with testing, confirmatory factor analysis (CFA) evaluated the following goodness-of-fit indices: χ²/df ratio, comparative fit index (CFI), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), normed fit index (NFI), Tucker–Lewis index (TLI) and root-mean-square error of approximation (RMSEA) (Ramayah et al., 2010). To calculate scale reliabilities of the four constructs, we used Cronbach’s alpha, in which a 0.70 reliability coefficient or greater than the proposed threshold of 0.70 indicates good reliability (Hair et al., 2010).

Measurement model

This study uses SEM to estimate the proposed research model and the model fit (Ramayah et al., 2010). The SEM technique involves evaluating R², β and the corresponding t-values (Quoquab et al., 2017) to assess the model fit. The χ²/df was 4.031, indicating satisfactory fit; according to Wheaton et al. (1977), a ratio of five or less is a good fit. CFI (0.923), GFI (0.089), AGFI (0.844), NFI (0.900), TLI (0.907) and RMSEA (0.083) all denote an adequate fit of the model. Cronbach’s alphas are 0.919 for entrepreneurial intention, 0.789 for self-efficacy, 0.800 for tolerance for risk and 0.809 for net desirability for self-employment. The results in Table 2 show that all four constructs had reliability coefficients greater than the proposed threshold of 0.70.

| Construct                           | Measure                                                                 | M     | SD  | Loadings |
|-------------------------------------|-------------------------------------------------------------------------|-------|-----|----------|
| **Entrepreneurial intention**       | Composite reliability (0.951)                                           |       |     |          |
| EI1                                 | “I am ready to do anything to become a business owner (independent/private)” | 4.17  | 0.98| 0.62     |
| EI2                                 | “My professional goal is to become a businessperson”                    | 4.03  | 1.03| 0.75     |
| EI3                                 | “I will do my best to start and run my own business (my profession)”     | 4.33  | 0.85| 0.79     |
| EI4                                 | “I am determined to start a company in the future”                       | 4.07  | 0.97| 0.90     |
| EI5                                 | “I am thinking very seriously about starting a company”                   | 3.91  | 1.02| 0.91     |
| EI6                                 | “I have a strong intention to start a company one day”                    | 4.10  | 0.96| 0.87     |
| **Self-efficacy**                   | Composite reliability (0.878)                                           |       |     |          |
| SE4                                 | “I have the skills and capabilities required to succeed as an entrepreneur”| 4.06  | 0.86| 0.76     |
| SE3                                 | “To start my own business would probably be the best way for me to take advantage of my education”| 3.91  | 0.98| 0.64     |
| SE2                                 | “It would be easy for me to start my own business”                       | 3.48  | 1.07| 0.65     |
| SE1                                 | “I am confident that I would succeed if I started my own business”        | 4.24  | 0.82| 0.73     |
| **Tolerance for risk**              | Composite reliability (0.813)                                           |       |     |          |
| TR6                                 | “I view myself as a risk-taker”                                         | 3.44  | 1.06| 0.81     |
| TR5                                 | “I usually view risks as a challenge”                                   | 3.73  | 0.99| 0.78     |
| TR3                                 | “I take risks regularly”                                                | 3.40  | 1.03| 0.69     |
| **Net desirability for self-employment** | Composite reliability (0.890)                                      |       |     |          |
| NDSE1                               | “I desperately want to work for myself”                                 | 4.36  | 0.79| 0.79     |
| NDSE2                               | “The idea of owning my own business is very appealing to me”             | 4.42  | 0.78| 0.82     |
| NDSE3                               | “I cannot imagine working for someone else”                             | 3.42  | 1.10| 0.57     |
| NDSE4                               | “Working in my own business would be very personally satisfying”         | 4.30  | 0.79| 0.71     |

*Note(s): *Because of low factor loadings TR1, TR2 and TR4 were excluded from the analysis
Composite reliability served to test the reliability of the values used in the construct. Table 2 reveals that all values are higher than 0.7, except EI1 (0.62), SE2 (0.65), SE3 (0.64) and TR (0.69). We can conclude that if the factor loading exceeds the 0.7 threshold and the average variance extracted (AVE) exceeds 0.5, convergent validity is reached (Fornell and Larcker, 1981). For determining the construct validity, we tested net desirability for self-employment, tolerance for risk, self-efficacy and entrepreneurial intention for convergent and discriminant validity (Figure 3). Convergent validity indicates the closeness of two or more measures in the same construct (Sin et al., 2005).

![Figure 3. SEM analysis of the research model](image)

Discriminant validity measures the degree to which the constructs differ among themselves (Sin et al., 2005). The AVE is greater than 0.5 for all constructs, except tolerance for risk. To achieve discriminant and convergent validity, the square root of the AVE should be greater than the correlations among the constructs; this is the case for the constructs used in the study (see Table 3).

Table 3 shows the results of the multiple regression analyses. As the table indicates, the direct relationships of net desirability for self-employment, tolerance for risk and self-efficacy are statistically significant.

### Table 3. Results from hypotheses testing: direct effect

| Hypotheses          | Standardised estimates | p-value | Results   |
|---------------------|------------------------|---------|-----------|
| H1: NDSE → EI      | 0.326                  | 0.001   | Supported |
| H3: TR → EI        | 0.175                  | 0.001   | Supported |
| H5: SE → EI        | 0.361                  | 0.001   | Supported |

**Note(s):** NDSE = net desirability for self-employment, TR = tolerance for risk, SE = self-efficacy, EI = entrepreneurial intention

The findings reveal a significant ($p < 0.001$) and positive relationship between net desirability for self-employment and intention to become an entrepreneur, in support of H1. Specifically, when net desirability for self-employment increases by 1, entrepreneurial intention goes up by 0.326. Tolerance for risk is also significant ($p < 0.001$); a one-unit increase in the tolerance for risk results in a 0.175 increase in entrepreneurial intention. Thus, H3 is supported. Table 3 also shows a significant ($p < 0.001$) relationship between the independent variable self-efficacy and
entrepreneurial intention. When self-efficacy increases by 1, entrepreneurial intention increases by 0.361, consistent with H5.

Moderating role of citizenship

To unpack the moderating effect in SEM, we assigned values based on the construct. Because citizenship is a categorical construct, we used a multigroup analysis, assigning the value of 0 to Jordanian citizens and 1 to Syrian refugees. H2, H4 and H6 test the moderating effects of citizenship status on the entrepreneurial intention of individuals with net desirability for self-employment, tolerance for risk and self-efficacy.

We ran the moderating test in SEM in two steps. First, we constrained the appropriate structural parameters to be equal across groups. This step produced an estimated covariance matrix for each group. Thus, a single structural system is created showing a covariance matrix and a total $\chi^2$ value for the sets of subgroups (Table 4). Second, we checked the two groups in the $\chi^2$ value. A moderator effect can be present if there is a statistically significant change between the two groups in the $\chi^2$ value.

| Table 4. Critical ratios: error variances and factor loadings |
|---------------------------------------------------------------|
| CR | CMIN ($\chi^2$) | $p$-value | Results |
|---------------------------------|----------------|------------|----------|
| H2: Citizenship $\rightarrow$ NDSE + EI | 0.350 | 0.123 | 0.726 | Rejected |
| H4: Citizenship $\rightarrow$ TR + EI | $-2.303$ | 5.180 | 0.023 | Supported |
| H6: Citizenship $\rightarrow$ SE + EI | $-2.174$ | 4.626 | 0.031 | Supported |

Note(s): If the critical ratios for the difference are more than $-1.96$ to $+1.96$, we assume a significant difference between groups. NDSE = net desirability for self-employment, TR = tolerance for risk, SE = self-efficacy, EI = entrepreneurial intention

As H2 posits, the relative influence of an individual’s net desirability for self-employment may also depend on citizenship. The results show that net desirability for self-employment is not significantly related to entrepreneurial intention ($CR = 0.350, p = 0.726$). Thus, H2 is not supported.

Although the direct positive impact of tolerance for risk significantly affects entrepreneurial intention, citizenship as a moderating variable may have an indirect influence on entrepreneurial intention. Thus, the relative influence of tolerance for risk may also be a function of citizenship status. As the results in Table 4 show, citizenship status significantly negatively moderates the relationship between tolerance for risk and entrepreneurial intention ($CR = -2.303, p < 0.05$). The significant difference between Jordanian citizens and Syrian refugees in how their tolerance for risk affects entrepreneurial intention is consistent with H4. The factor loadings of tolerance for risk for Jordanian citizens is 0.237 and 0.136 for Syrian refugees (untabulated). Therefore, Jordan citizenship contributes more to the moderating effect of tolerance for risk on entrepreneurial intention than Syrian refugee status.

Prior research suggests that self-efficacy has a significant, positive impact on entrepreneurial intention (Park and Choi, 2016; Tsai et al., 2016). However, this impact may also be moderated by citizenship status as an indirect effect on entrepreneurial intention. Thus, the relative influence of self-efficacy may also depend on citizenship. In this context, we propose that
citizenship has a moderating effect on the relationship between self-efficacy and entrepreneurial intention. As the results in Table 4 show, citizenship negatively and significantly moderates the relationship between self-efficacy and entrepreneurial intention (CR = -2.174, p < 0.05), consistent with H6. The factor loadings of self-efficacy for Jordanian citizens is 0.405 and 0.324 for Syrian refugees (untabulated). Therefore, Jordan citizenship contributes more to the moderating effect of self-efficacy on entrepreneurial intention than Syrian refugee status.

Moderating role of gender

Because our sample of Jordanian citizens is more heavily weighted toward female respondents than the sample of Syrian respondents, our finding that Jordan citizenship status negatively affects the relationships among net desirability for self-employment, tolerance for risk, self-efficacy and entrepreneurial intention may reflect a higher risk tolerance previously documented for men than women. Therefore, we explore whether gender as a moderating factor strengthens or weakens the effect of an individual’s net desirability for self-employment, tolerance for risk and self-efficacy on entrepreneurial intention. Table 5 reports the results.

As Table 5 shows, net desirability for self-employment is not significantly associated with entrepreneurial intention (CR = -1.361, p = 0.174). Thus, gender does not moderate the relationship between net desirability for self-employment and entrepreneurial intention.

| Table 5. Effect of net desirability for self-employment |
|---------------------------------------------------------|
| CR | CMIN (χ²) | p-value | Results |
|----------------|---------|--------|---------|
| Gender → NDSE + EI | -1.361 | 1.847 | 0.174 | No moderation |
| Gender → TR + EI | 3.239 | 10.370 | 0.001 | Moderation |
| Gender → SE + EI | 2.440 | 5.915 | 0.015 | Moderation |

Note(s): NDSE = net desirability for self-employment, TR = tolerance for risk, SE = self-efficacy, EI = entrepreneurial intention

The relative influence of tolerance for risk may also be a function of gender. The results show that gender significantly positively moderates the relationship between tolerance for risk and entrepreneurial intention (CR = 3.239, p < 0.001), given the significant difference between male and female respondents. The factor loadings of tolerance for risk for men is 0.034 and 0.242 for women. Therefore, women contribute more to the moderating effect of tolerance for risk on entrepreneurial intention.

The results also suggest that self-efficacy has a significant, positive impact on entrepreneurial intention. However, this impact may also be moderated by gender as an indirect effect on entrepreneurial intention. Thus, the relative influence of self-efficacy may also depend on gender. In this context, we assume that gender has a moderating effect on the relationship between self-efficacy and entrepreneurial intention. The results reveal that gender positively and significantly moderates the relationship between self-efficacy and entrepreneurial intention (CR = -2.440, p < 0.015). The factor loadings of self-efficacy for men is 0.300 and 0.530 for women. Therefore, women contribute more to the moderating effect of self-efficacy on entrepreneurial intention.
Overall, our results show that gender positively moderates the interaction effect of tolerance for risk and self-efficacy on entrepreneurial intention, and the effect is stronger among the female group. However, the results do not indicate any significant differences between the male and female groups regarding the effect of net desirability for self-employment on entrepreneurial intention. Furthermore, our results show that citizenship status negatively moderates the interaction effect of tolerance for risk and self-efficacy on entrepreneurial intention, and the effect is stronger among Jordanian citizens than Syrian refugees. These findings are multifaceted and an artefact of gender. However, the results do not indicate any significant differences between Jordanian citizens and Syrian refugees regarding the effect of net desirability for self-employment on entrepreneurial intention.

Discussion and conclusions

This study explores entrepreneurial intentions of Syrian refugees versus Jordanian citizens by deploying a model consisting of three independent variables related to the motivation to engage in entrepreneurial work: net desirability for self-employment, tolerance for risk and self-efficacy. The readiness to start a business, proxied by net desirability for self-employment, was positively and significantly related to the intention to become an entrepreneur, corresponding to many studies that employ other intention-based models, such as Fitzsimmons and Douglas (2011), Krueger et al. (2000) and Henley et al. (2017). The desirability for self-employment has also been the main antecedent of entrepreneurial intentions in other recent studies (Barba-Sánchez and Atienza-Sahuquillo, 2017; Esfandiar et al., 2019; Wah et al., 2017), though Omidi Najafabadi et al. (2016) and Li and Zhang (2020) find no significant relationship between net desirability for self-employment and entrepreneurial intention. However, the findings of these two studies may relate to the nature of their sample; Omidi Najafabadi et al. (2016) examine students from one university, and Li and Zhang (2020) examine academic entrepreneurs.

Furthermore, our results are consistent with those of prior research documenting a positive relationship between tolerance for risk and entrepreneurial intention, including Basar (2017), Mills and Pawson (2012) and Kozubíková et al. (2015). Hvide and Panos (2014) also find that more risk-tolerant people are more likely to be self-employed, and Zhao et al. (2010) find evidence that risk tolerance is the best construct of entrepreneurial intention.

People who believe in their ability to perform entrepreneurial tasks (i.e. those with greater self-efficacy) are more likely to exhibit entrepreneurial intention. Our finding that self-efficacy is an influential construct for intention is consistent with several studies, including Markman and Baron (2003), Krueger (2003) and Segal et al. (2005). Literature also shows evidence of a positive effect of self-efficacy on setting entrepreneurial targets (Baron et al., 2016; Schlaegel and Koenig, 2014). This effect is deeply rooted in studies through social cognitive theory, which focuses on self-efficacy as a catalyst for self-motivation (Bandura, 1997; Vancouver, 2005).

Our findings that citizenship status has a moderating effect on the constructs of entrepreneurship intentions, tolerance for risk and self-efficacy are unique because a comparison between entrepreneurial intentions for refugees versus settled residents has not yet been studied. We propose an explanation for our findings on the indirect effect of citizenship status on the relationships among tolerance for risk, self-efficacy and entrepreneurial intentions. Jordanians
and Syrians share cultural values and other characteristics, such as social practices, beliefs, traditions and habits, particularly in the regions of Jordan that are geographically close to Syria. They also share marriage and trade connections (Obermeyer et al., 2015). Regarding economic aspects, Jordan has a high unemployment rate and has experienced the negative fallout of turbulent conditions in neighbouring countries such as Iraq, Syria, Lebanon and the Palestinian territories. With low access to capital, a drop in tourism and increased living costs, many Jordanians share the frustration and tension that Syrian refugees are experiencing in terms of not being able to find suitable work.

The results of this study also reveal an important difference between Syrian refugees and Jordanian citizens in terms of tolerance for risk and self-efficacy as determinants of the intention to engage in entrepreneurial work. This is inconsistent with Block et al. (2015), who find that risk tolerance is higher for opportunity-based entrepreneurs than necessity-based entrepreneurs (the category to which refugees, in theory, belong).

With regard to gender, research indicates that men tolerate risks more than women (Bönte and Jarosch, 2011; Neelakantan, 2010); moreover, gender exerts a moderating effect on the determinants for entrepreneurial intention (Choudhary, 2017). From this perspective, the likelihood to take risks as a determinant of entrepreneurial intentions may have been an artefact of the difference in gender of the study respondents, as our findings show that gender is a moderator. Thus, we are biased against our findings of the positive moderating effect of being a woman on the relationship between risk tolerance and entrepreneurial intentions. As such, we call for further research on the role of gender and refugee status.

Our study is unique in that it contributes to research with refugees as the subject of interest. The entrepreneurial intention of refugees, especially those located in developing countries, is a topic that has received insufficient attention. We explore the constructs, determinants and antecedents of entrepreneurial intentions to shed more light on the psychology behind entrepreneurial behaviour. Therefore, this study contributes to the literature on psychology that shows that personality traits and characteristics, such as desirability, self-efficacy and risk tolerance, affect refugees’ entrepreneurial behaviour versus host country citizens.

Despite this study’s contributions to literature, it has several limitations. First, we used a convenience sample. Second, while we did not intentionally ignore heterogeneity among respondents, the crisis’s scale impeded our ability to interact with humanitarian organisations working with Syrian refugees. Furthermore, it was challenging to access Syrian refugees across Jordan, and living conditions are bound to differ according to this geographic issue. We thus recommend future research precisely control for these criteria to broaden the scope of the study. Third, we also relied on subjectively reported self-perceptions. Future research can overcome this subjectivity by employing more objective measuring tools. Finally, a large sample size may provide more validity to the results.

This study has implications for future research. New theoretical approaches to entrepreneurial processes, including entrepreneurial intentions in a hostile environment that refugees face, need to be developed. The impact of context on approaches, theories and methodologies needs to be better understood. Examination of gender differences in developing economies needs further
investigation, as recommended in a study of gender differences in developed economies (Jafari-Sadeghi and Biancone, 2017). In particular, refugee startups during a crisis needs to be investigated. Welsh et al. (2018), in a study of women entrepreneurs in Egypt during the Arab Spring, found a positive relationship between women entrepreneurs’ human capital and firm performance. Would this finding be confirmed for refugee women entrepreneurs? Welsh et al. (2018) also found that only human capital matters in hostile environments. For refugees, would there be any differences? Does social capital matter for refugees in crises? Practical implications include how to better manage refugee influx and acceptance by moving entrepreneurial intentions to successful startups. In addition, the findings revealed the entrepreneurial spirit among Syrian refugees in Jordan to start up their own businesses. The findings provide institutions and organisations with some insights on how to harness and manage these positive attitudes of refugees toward entrepreneurship. Moreover, refugees through entrepreneurial activities are more easily integrated socially and economically. The research provides more insights to host governments to design policies for enhancing the social and economic integration of refugees. Thus, the findings urge the need for supporting refugees institutionally in their efforts to build new businesses, organise their living and enjoy the benefits in society.

Further, the crisis presents a much higher level of challenges for society at large and an even larger threat to survival for refugees. Infusion into society thus will be even harder, and acceptance by the population a harder goal. We have just begun to understand both these phenomena and the confluence of both.

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