

European Journal of Science and Technology No. 41, pp. 457-470, November 2022 Copyright © 2022 EJOSAT **Research Article**

Social Entrepreneurial Projects Evaluation in Crisis Areas Through Multi-Criteria Decision Making

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Abstract

The aim of this article is to examine humanitarian actors' attitudes towards the factors that should be considered and the methodology that should be applied in the evaluation process of social entrepreneurial projects. In line with this, an online questionnaire was conducted on attitudes towards the current way utilized in the crisis areas. The results indicate that the majority of actors are using the methodology of the sum weighted model and the more-experienced actors are tending to include more criteria compared with the less-experienced actors. The article concludes that more awareness should be raised among the humanitarian actors to enable them to conduct the evaluation more effectively. In order to develop the effectiveness of the studies in this area, it is recommended that a more dedicated policy should be created and training should be conducted in place.

Keywords: Social, Entrepreneurial, Projects Evaluation, Crisis Areas, Multi Criteria Decision Making.

Kriz Bölgelerinde Sosyal Girişimcilik Projelerinin Çok Kriterli Karar Verme ile Değerlendirilmesi

Öz

Bu makalenin amacı, sosyal girişimcilik projelerinin değerlendirilme sürecinde insani yardım aktörlerinin dikkate alınması gereken faktörlere yönelik tutumlarını ve uygulanması gereken metodolojiyi araştırmaktır. Bu doğrultuda, kriz bölgelerinde kullanılan mevcut yola yönelik tutumlar hakkında çevrimiçi bir anket yapılmıştır. Sonuçlar, aktörlerin çoğunluğunun toplam ağırlıklı modelin metodolojisini kullandığını ve daha deneyimli aktörlerin daha az deneyimli aktörlere kıyasla daha fazla kriter içerme eğiliminde olduğunu göstermektedir. Makale, değerlendirmeyi daha etkin bir şekilde yürütebilmeleri için insani yardım aktörleri arasında daha fazla farkındalık yaratılması gerektiği sonucuna varmaktadır. Bu alandaki çalışmaların etkinliğini arttırmak için daha özel bir politikanın oluşturulması ve eğitimin yerinde yürütülmesi tavsiye edilmektedir.

Anahtar Kelimeler: Sosyal, Girişimci, Proje Değerlendirme, Kriz Alanları, Çok Kriterli Karar Verme.

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1. Introduction

Since 2011, Syria has been at the center of a catastrophic mix of economic crisis and conflict; over half the population has been enforced to leave their homes, and many have been displaced numerous times. About 13.8 million people are facing difficulties, and they endure the worst economic crisis since the conflict started, with record levels of food insecurity and rapidly rising prices of the most in-need goods (Humanitarian Programme Cycle, 2022).

To alleviate this suffering, different solutions have been suggested, of those, social entrepreneurship projects (SEPs) which are a rather fresh concept seem to be a strong emerging phenomenon to solve social problems in the community. SEPs emerged as a response to unmet social needs and the limitations of traditional social and employment policies to combat social exclusion in recent years (Gandhi, 2018). This phenomenon grew from the desire of some voluntary associations to develop jobs for people excluded from the traditional labor market and from individual entrepreneurs who wanted to operate businesses but with pronounced social aims.

Social entrepreneurial projects are encouraged by numerous networks and organizations around the world, which have been initiating major initiatives for several years to determine and promote social entrepreneurs and social enterprises (International Labour Organization, 2017).

Operating the social projects in the crisis areas runs a vital role in addressing the social problems and improving the incomegenerating project for those who have suffered from the consequences of the crisis in Syria, nevertheless, not all social projects are able to achieve their outcomes and lead to a real improvement to society or even to the investors. From this perspective, the evaluation and selection of social entrepreneurship projects are crucial to ensure the maximum benefits for all parties.

For decades, SEPs have played a real role inside stable societies but when it comes to the crisis areas, most supported projects are focusing on the relief and dependencies on others which have many harmful effects, while social entrepreneurship projects are seeking to move people from the state of social care to the state of production, achieving independence and selfreliance on providing appropriate income (Martin, 2007). In line with this, the purpose of this study is to propose a novel methodology for the assessment and selection of social projects that reflect positively on the whole society in crisis areas.

The business environment consists of many factors. In this context, the continuation of an organization's activities depends on many factors such as growth rate, sales, profitability, the state of the industrial sector, economic changes in the current and past periods (Akram, 2001; Arias et al., 2015). Along with environmental factors; needs in communities are increasing the number of startups in the market day by day (Salazar-Carvajal et al., 2014; Echeverri-Sánchez et al., 2018). In this direction, social entrepreneurship is creating social value in non-profit private or public sector activities (Thompson, 2002; Austin et al., 2006; Zahra & Wright, 2016). The social value effect that emerges as a result of social entrepreneurship activities is reflected in economic and social development (Aspelund et al., 2005; Bresciani & Eppler, 2013; Valencia et al., 2015). According to Bikse and Riemere (2013), the focus of social entrepreneurship is e-ISSN: 2148-2683

transformation, but it faces severe resource constraints that limit its strategic activities and development (Aspelund et al., 2005; Bresciani & Eppler, 2013; Valencia et al., 2015). Entrepreneurship, which is a popular field of study in scientific research, is of critical importance and vital because identifying new entrepreneurial behaviors in the new world order and determining which ways are best for these behaviors are important problems to be solved (Zahra, 2021).

According to Moein (2014), the role of social entrepreneurship, which has strategic importance in social and economic development, is also very significant for the improvement of tourism activities. In this direction, the affects of social entrepreneurship on the development of tourism activities were investigated with the TOPSIS technique in their study. As a result, it has been determined that "Mission", "Opportunity", "Capital", "People", "Idea Generation" and "Contextual Factors" have a positive and important effect on the development of tourism activities. With the TOPSIS technique, the components of social entrepreneurship have been ranked according to their importance and effectiveness on tourism activities. As a result, it has been stated that "Human", "Idea Generation" and "Contextual Factors" have a higher and more significant impact rate on the tourism sector (Moein, 2014).

Lee et al. (2016) states that there are many differences in the definition of entrepreneurial competencies. In this context, a literature review on previous entrepreneurial competencies was conducted in order to identify entrepreneurial characteristics and define competencies. For this purpose, 14 articles on entrepreneurial characteristics published in journals at the SSCI level were included in the study. As a result of the study, it was stated that the entrepreneurship competencies", "Management Competencies", "Relationship Competencies", "Personal Competencies" and "Commitment Competencies" (Lee et al., 2016).

The concept of entrepreneurship as an indicator of economic development and social welfare is very popular today. Similarly, the interest in the issue of immigration is increasing day by day. The participation of immigrants in the labor market is one of the most important issues. Baltaci (2017) conducted a study with the participation of 12 Syrian immigrant high school students studying in Turkey and 13 Syrian immigrant high school students studying in Germany, in order to determine the entrepreneurial tendencies and career expectations of immigrants. As a result of the study, the inadequacy of socio-cultural and economic areas is among the obstacles to entrepreneurial tendency. In the study, it was also determined that immigrant students have a high level of entrepreneurship in Germany and their future career prospects in Turkey are low.

Durmuşoğlu (2018) used the Analytical Hierarchy Process (AHP) to discover the components that should be utilized in the evaluation phase of techno-entrepreneurship projects that many governments support via various policy tools such as incentives. In the study, the AHP model, which was created in line with expert opinions, was tested with the help of real data containing the characteristics and results (successful/unsuccessful) of ten techno-entrepreneurship projects. Afterwards, these projects included in the study were graded and the proposed AHP model was confirmed by determining that three projects that actually not succeeded were at the end of the list. As a result of the study, the most significant factors in the selection of an entrepreneurship

project had been revealed that "Market", "Budget", "Location" and "Staff". Among these factors, it was stated that considering the market factor, which is the target audience in technoentrepreneurship projects, is the most critical success key (Durmuşoğlu, 2018).

Ranasinghe et al. (2018) included 15 empirical studies and 126 articles published in ISI, Scopus and Google Scholar between 2000-2018 in their study in which they examined the relationship between entrepreneurial orientation and job performance. With the study, a conceptual model consisting of five dimensions, including entrepreneurial desire, innovativeness, proactivity, risk taking and networking ability, which is included in the scope of entrepreneurial orientation, has been proposed.

Kaçaroğlu and Organ (2020) states that the main purpose of social entrepreneurship (which includes activities aimed at combating poverty, environmental problems, and realizing permanent change in artistic and sports fields by public institutions, private institutions or individuals) is to generate social value and maintain it in a sustainable way. With respect to such a goal, in their study, they stated that there are various economic, social, structural or legal obstacles to the sustainability of social entrepreneurship. In this context, it is targeted to determine the risks related to the sustainability of social entrepreneurship with the AHP by evaluating the obstacles in front of social entrepreneurship with its sub-factors. As a result of the study, the factors with respect to the sustainability of social entrepreneurship were assessed under four titles: "Management", "Resources and Expertise", "Government Support and Policies" and "Stakeholders" (Kaçaroğlu & Organ, 2020).

Solana-Gonzales et al. (2022) aimed to build up a layout for selecting accounting entrepreneurship projects applying the AHP. In the study, it was stated that decision-making processes which are based on intuition or oversimplify the variables to be taken into consideration should be avoided. By applying the appropriate AHP multi-criteria decision-making method in the study, it is possible to create an appropriate design to organisms which provide grants and financing in response to such a request, which includes a criterion definition, sub-criteria and alternatives to develop the selection of entrepreneurial projects. In this way, the decision-making processes of the institutions and organizations responsible for financing the projects are optimized (Solana-Gonzales et al., 2022).

2. Material and Method

This research was conducted through designing a questionnaire focusing on evaluation of the SEPs to understand and analyze the context. We aimed to collect data about the factors and criteria that have been considered in these projects to investigate the actors' attitudes in the non-profit organizations (NGOs) and international non-profit organizations (INGs) in the crisis areas. Moreover, information was gathered about the methodologies that have been in place in the areas and the actor's attitudes to utilizing these methodologies.

A total of 23 questionnaires (see Appendix 1) were distributed online among NGOs/INGOs active actors from July to August 2022. Various types of questions were used such as closed questions, the Likert scale, and multiple questions to assess actors' attitudes to the way evaluation is used to select the SEPs and there was an option to give open responses for additional comments or feedback about the method utilized. During this process, no personal information was collected; the questionnaire was 100% voluntary, anonymous and had specific objectives without any harmful effects on the respondents. These clarifications were mentioned clearly in the questionnaire to protect the participants especially since the research is conducted in crisis areas. In addition to not including any points related to political parties or armed groups, furthermore, all participants are located in a safe country (Turkey) and they manage projects inside the north of Syria. Therefore, this research considers the ethical implications and it is complying with the university of South Wales guidelines.

3. Results and Discussion

3.1. Results

There was a 100% response rate to the questionnaire. The results indicated that the majority of humanitarian actors are between 35 and 44 years old and most of them have been dealing with funding entrepreneurial projects to beneficiaries for more than 4 years as shown in Table 1.

Table 2 states that the most selected criteria by the humanitarian actors are sequentially: Fund required (cost), Economic feasibility, Technical/operational feasibility, Risk associated, and Urgency while the generality of selected risks are: Away from the frontlines, away from conflict areas, away from intervention of armed groups. The ranking of criteria according to the actors have indicated that the first three criteria to be sequentially as follows: Economic feasibility, Fund required (cost), Technical/operational feasibility as shown in Table 3.

Through an open-ended question, the questionnaire also allowed participants to identify the current methodology utilized in the process of projects' evaluation in the north of Syria. The results show that the significant majority of actors are using the weighted sum model which is probably the most commonly used approach, particularly in single-dimensional problems to evaluate and rank the alternatives (Triantaphyllou, 2000). Furthermore, it can be applied in different contexts as stated in Table 4.

Table 1. Humanitarian Actors' Characteristics

Working in	Less than 2 years	2 - 5	6 - 10
NGOs/INGOs?	6%	22%	72%
How old are	25-35	35-44	Over 45
you?	39%	50%	11%
Dealing with	Less than 1 one year	1 - 3	4 - 6
funding entrepreneurial projects to beneficiaries?	11%	22%	67%

Table 2. Criteria and Risk Factors Selected by Actors

Criteria selected	Selection
Fund required (cost)	19
Net present value (NPV)/ROI (Economic feasibility)	18
Technical/operational feasibility	17
Risk associated	16

Urgency	16
Vulnerability (disability, women headed- family)	12
#No of beneficiaries	9
Training/Sessions Attendance	5
Risks selected	Selection
Away from the frontlines	20
Away from conflict areas	19
Away from intervention of armed groups	18
Away from implementing areas (Related to the NGO intervention area)	16
Away from areas that have faced stolen incident reports	13

Table 3. Ranking of Criteria

Criterion	Ranking
<i>Net present value (NPV)/ROI (Economic feasibility)</i>	1
Fund required (cost)	2
Technical/operational feasibility	3
Urgency	4
Risk associated	5
Vulnerability (disability, women headed- family)	6
#No of beneficiaries	7
Training/Sessions Attendance	8

Table 4. Methodology Utilized Currently by the Actors

Current utilized methodology	Ranking
Weighted Sum Model (WSM)	95%
Provided be Donor	2%
Group of Experts	3%

3.2. Discussion

The purpose of this study was to examine the methods which NGO/INGO actors utilize and evaluate the SEPs and whether they need to be improved or generalized, in addition to the factors that should be considered including those associated with possible risks in the crisis areas.

The results clearly show that more risk-based and non-riskbased criteria should be considered in the evaluation process and more reliable and academic background-based methods should be applied in the crisis areas to evaluate these types of projects to ensure accountability and transparency towards the the beneficiaries.

More precisely, this study was focused on the humanitarian actors in the NGOs/INGOs investigating how they utilize the methods to evaluate the projects and according to which factors. Despite the difference in the number of criteria used among the different age groups, most of them (70%) suggested that the more the criteria are utilized the more effective the evaluation process is. A difference between the less-experienced actors and moreexperienced actors can be noticed as shown in Figure 1 where a classification of these groups has been made to investigate whether this difference is statistically significant or not. Table1 showed the relation between years experienced and the number of criteria selected where the trendline is going up at the more years experienced.



Figure 1. Relation between Years Experienced and the Number of Criteria Selected

To examine this difference statistically, a T-test has been conducted and the P-value of .008 was obtained which means that the difference is statistically significant and the means are different between the less-experienced and more-experienced actors. Possible reasons for this could be due to the fact that the more criteria are used the more differentiated the outputs, and that leads to evaluating the projects more effectively and actors with more experience can recognize these outputs more than the lessexperienced ones.

Similarly, an investigation was conducted to examine the relation between the years experienced and the number of risk criteria selected (Figure 2) where a T-test was calculated and the P-value of less than .001 was obtained which means that the difference is statistically significant. Possible reasons for this in addition to the previous reasons could be due to the more experienced actors having worked in this sector since the Syrian crisis started and that they may have come across many different stages of the risks in their long experience which is not the case when it comes to less-experienced actors.



Figure 2. Relation between Years Experienced and Number of Risk Criteria

The first four ranked criteria among all age groups are sequentially: Economic feasibility, fund required, technical feasibility and urgency. A variance can be noticed between the less-experienced and more-experienced actors in this context which is shown in Figure 3 where an analysis for each age group was conducted to investigate each age groups' attitude towards ranking the different factors. The less-experienced actors defined the first four criteria sequentially as Cost, urgency, number of beneficiaries, and vulnerability while the more-experienced actors ranked it in a different way starting with cost to urgency, economic feasibility, technical feasibility, and risk associated. The reason behind this difference could be that the moreexperienced actors rely on more professional criteria to evaluate the projects which come from their wider best practices their investigation of the most technical factors to handle this this evaluation properly, however, this could be limited in the case of the less-experienced actors.



Figure 3. The First Four Factors Selected According to Each Age Group

Even though all respondents (100%) expressed the possibility of utilizing other new methodologies and they agree that their current methodologies are effective in the most aspects as shown in Figure 3, most of them are not satisfied with it in terms of the academic background aspect and this is supported by most participants as they showed that they will be led to apply a new methodology if it is more accurate and has more academically robust.

These findings are consistent with other studies which indicate that the evaluation of projects should be systematic and avoid decision-making processes that rely on intuition or that oversimplify the variables to be considered (Lee, 2016; Nasip, 2017; Solana González, 2022). The criteria utilized in this study are consistent with other studies (Santalova, 2015; Lee et al., 2016) in terms of most factors, but it is different in terms of unique innovation and relationship competencies.

Also, it is noteworthy to point out that findings are not consistent with the other studies according to some studies which utilize criteria and sub-criteria that apply characteristics of entrepreneurial success which depend on psychological characteristics (Nasip, 2017; Solana González, 2022). While Barba-Sánchez (2017) highlights the need for self-employment and the creation of new businesses to support the creation of wealth, employment, well-being, and motivation being presented as highlighted characteristics when explaining the ability of the entrepreneur to start a business.

Despite the Weighted Sum model (WSM) being utilized to compare several options according to various factors that are expressed in a single unit, it has difficulties with multidimensional problems (Fishburn, 1967; Qin et al., 2008; Velasquez, 2013; Aruldoss, 2013). A few studies utilize this method such as Santalova (2015), however, many other studies apply different methodologies, for instance: Solana González (2022) applied the AHP methodology to evaluation of entrepreneurship projects while Mukherjee (1995) utilized goal programming in project *e-ISSN: 2148-2683*

selection decision and Amiri (2010) implement the AHP and fuzzy TOPSIS methods in project selection. Similarly, Kiraz et al (2018) applied Fuzzy AHP and Fuzzy TOPSIS methods for the selection decision of R&D projects, which are very effective for companies to gain competitive advantage. When the relevant literature is examined, it is seen that the TOPSIS method is also used in the selection of facility location in health services (Miç & Antmen, 2019), personnel selection (Elmas, 2022), determination of warehouse locations (Ak & Acar, 2021), determination of the region for the factory (Kayadelen, 2022), and evaluation of financial performances (Gül & Erdem, 2022).

None of the previous studies have discussed the evaluation process in crisis areas but they applied their research to stable communities where there are not many uncertainties. However, when it comes to crisis areas where there are many uncertainties and the severe urgent situation requires a different type of intervention.

Although the questionnaire results were clearly to include more factors in the evaluation process of SEPs and utilize more effective methods to handle this problem, there are some limits that must be taken into account. Firstly, the type of organization as local or international has not been considered in the questionnaire as well the participants represent only the Syrian context and not the other similar context like in Iraq or other neighbouring countries. Another important factor is that the questionnaire provides only one open question about the methodology which does not allow the analysing process to be conducted deeply in detail and does not allow for an understanding of the current way of utilizing and dealing with this type of projects' evaluation. For these reasons, it is suggested that another study could be conducted to examine the utilized methodology in detail and to attempt to include another similar crisis context.

4. Conclusions and Recommendations

In conclusion, finally, this research has examined the factors and methods that should be considered in evaluation of social entrepreneurial projects. From the point of view of the actual results, the first noticeable evidence from research shows that more criteria should be taken into account in addition to riskbased factors and methods based on academic background should be applied in this regard. Furthermore, a dedicated awareness about these outputs should be conducted and shared with all stakeholders. Most experienced humanitarian actors have suggested more criteria to be included to ensure that the evaluation is made in an accurate and accountable way, for these reasons, a more detailed policy and procedures can be created to allow decision makers to evaluate and select projects effectively.

It is recommended that a comprehensive framework with detailed procedures should be developed for the social entrepreneurial projects' evaluation including the following key points in future studies. These are summarized in the following:

- Risk-based factors should be taken into account to evaluate the projects, in addition to the standard factors.

- Implementation steps of each methodology, the field of application, advantages, and disadvantages should be clearly indicated in the guidelines to avoid any misapplication.

- Awareness sessions should be conducted to allow the humanitarian actors to utilize it effectively.

- The outputs should be shared more widely to allow the humanitarian actors in other regions to benefit from these outputs.

- A web-based application should be created to allow the actors to utilize these outputs without having trouble in terms of miscalculation or burdensome processes.

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Appendix 1

Entrepreneu	irial Projects Evaluation
We hope you will have as muc	h fun filling as we did organizing it.
	opinion/feedback so the improving of Entrepreneurial project the crisis areas. Please fill this quick survey (3-5 minutes) and le inswers will be anonymous).
* Required	
1. How old are you? *	
O Under 25	
25-35	
35-44	
Over 45	
Prefer not to say	

2. How long have you been working in NGOs/INGOs? *



2 - 5

6 - 10

Over 10 years

- 3. How long have you been dealing with funding entrepreneurial projects to beneficiaries ? *
 - Less than 1 one year
 1 3
 4 6
 7 9
 Over 9 years

4.	Which criteria	should be	taken	into	conside	eration	to	fund	the
	entrepreneuria	al projects	in nor	th of	Syria?	*			

Fund required (cost)
#No of beneficiaries
Net present value (NPV)/ROI (Economic feasibility)
Urgency
Risk associated
Vulnerability (disability, women headed-family)
Training/Sessions Attendance
Technical/operational feasibility
Other

5. Can you rank these factors? (Using arrows or drag and drop) *

Fund required (cost)

#No of beneficiaries

Net present value (NPV)/ROI... (Economic feasibility)

Urgency

Risk associated

Vulnerability (disability, women headed-family...)

Training/Sessions Attendance

Technical/operational feasibility

The "other" as if you selected in the previous question.

6. What do you think the RISK factors that should be taken into consideration in this regard? *

Away from the frontlines
Away from conflict areas
Away from implementing areas (Related to the NGO intervention area)
Away from areas that have faced stolen incident reports
Away from intervention of armed groups
Other

7. How to identify the "risk value" and the other "Criteria" in Q4 associated with each of the previous risks? *

One expert	
Group of experts	
Classification into groups	
based on Calculation	
Given by the donor	
Other	
8. What's the methodology you have selected to evaluate the	

entrepreneurial projects submitted by beneficiaries? *

9. What do you think about your selected methodology ? *

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Accurate	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Easy to apply	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Fast to get results	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Academic background	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Based on group of decision makers	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Accountable and Transparent	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc

10. Are you open to using any other new methodologies? *



) No

Maybe

11. Wł	hat would lead you to utilize a new methodology? *
	If it's more Accurate
	Faster
	Easier
	More based on Group of decision maker
	Has Academic background
	More Accountable and Transparent
	Other
	y other comments/feedback in this regards?
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