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ICT-Based Participation in Support of Palestinian Refugees' Sustainable Livelihoods: a Local Authority Perspective

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Abstract. This study investigates how e-participation could improve the livelihoods of marginalized and disadvantaged groups, in particular, refugees in the Gaza Strip in Palestine. They constantly faced problems of basic services of water supply, electricity, housing and infrastructure in their daily lives. This study was conducted from the perspective of municipalities which are local authorities which providing services and responsible to address these issues. This study used a qualitative research method by means of in-depth interviews. Thirteen interviewees from four municipalities in the Gaza Strip participated in the study and were given open-ended questions to express their views about the phenomenon. Thematic analysis was adopted to analyze the interview transcripts. Two theme clusters were uncovered: consequences of e-participation as increasing information and raising awareness among refugees, saving time, and long-term direct relationships with their stakeholders, and livelihood outcomes which include poverty alleviation and unemployment reduction as well as increased well-being. There are challenges that persist in e-participation implementation in the Gaza Strip including ICT infrastructure and the culture of the society. However, the findings of this study reveal evidence of the benefits of e-participation implementation and how livelihood outcomes have influence in refugee contexts.

Keywords: E-participation, ICT-based Participation, Sustainable Livelihoods, Livelihoods Outcomes, Refugees, Palestine, The Gaza Strip.

1 Introduction

The importance of Information and Communication Technologies (ICTs) has been emphasized in refugee studies, for example, in the role of ICTs in the integration of refugees [1] and the facilitation of social inclusion of newly resettled refugees [2]. One form of ICT usage, e-participation, “technology-facilitated citizen participation in (democratic) deliberation and decision-making” [3:408], enables the transformation and extension of participation in consultative processes and societal democracy and embodies democratic values [4].

However, while there has been an increasing interest in e-participation, research to date has focused on government-citizen interaction [5] and engaging citizens in government decision-making [6]. As yet, there is limited research on e-participation in refugee contexts and its impact on the sustainability of their livelihoods. E-participation has the potential to connect refugee voices to the relevant stakeholders; establish mutual trust and long-term relationships between refugees and service providing institutions to enhance access to services and enhance overall livelihood improvement [7]. E-participation can be useful in the thus far under-researched context of refugees such as those living in the Gaza Strip in the Middle East.

Palestinian refugees in the Gaza Strip constitute every person whose normal place of residence was Palestine from 1 June 1946 - 15 May 1948, and who lost both home and means of livelihood as a result of the 1948 Arab-Israeli conflict [8]. Since the 1948 the United Nations Relief and Works Agency (UNRWA) has provided humanitarian relief, access to services and employment for Palestinian refugees pending the regional political settlement to release the economic blockade on Gaza [9]. The UNRWA, in collaboration with other donor agencies, have been engaging in the development of sustainable livelihood strategies in the delivery of essential health, social and educational services, employment and vocational training [10].

The Palestinian ICT sector is recognized by both the Palestinian private sector and the Palestinian Authority as an important sector for economic viability and growth. [11]. Palestinian telecommunications companies provide internet services via digital subscriber line, fiber optics and microwave communication through neighboring countries such as Israel, Jordan and Egypt [12]. Despite the conditions and restrictions are imposed by the Israeli authorities [11, 13], the ICT sector in the Gaza Strip progressed in early 2018 with the launch of telecommunications providers of the 3G services to the population of the Gaza Strip [14]. Given this and the fact that, according to the census of [15], 75.5% of households in the Gaza Strip in Palestine have smartphones, the infrastructure for e-participation is available.

The overarching purpose of this study is to explore the influence of e-participation on the sustainability of livelihoods among Palestinian refugees in the Gaza Strip. The study further purposes to investigate the relationship between e-participation and livelihood outcomes. Finally, the study aims to provide insights into the forms of e-participation that are present in the context of refugees.

Therefore, this study asks the following main research questions: *What are the results of e-participation based on the use of e-channels and activities between refugees and local authorities* and *How does e-participation influence sustainable livelihoods of refugees in the Gaza Strip?*

Section two of this paper highlights the use of ICT in the refugee context and links key theoretical concepts of e-participation to sustainable livelihoods. The conceptual model used in this study, which is based on the theories of e-participation and sustainable livelihoods, is outlined, followed by a methodology section that justifies an interpretive paradigm and a qualitative approach to understanding the interplay between context and e-participation. The findings are then revealed and explained.

2 Background

2.1 ICTs in Context of Refugee Studies

The importance of ICTs has been emphasized in refugee studies; for example, the role of ICTs in the integration of refugees, the facilitation of social inclusion on newly resettled refugees (allowing refugees to connect effectively in communities and areas that have become fragmented during their movement), and ICTs use is seen as beneficial to vulnerable groups, such as refugees, as they can more easily communicate with society and stakeholders [14, 16, 17].

ICT-based participation has earned considerable attention from different disciplines, such as contributions from political science, management, economics, psychology and technology-oriented studies, which are key to the role of transnational communication for and research on refugees [16]. Thus, the interest of charitable and humanitarian organizations in ICT initiatives has increased and could serve as a potential solution for refugees where ICT-based communications, such as smartphones, provide a convenient means of accessing information related to humanitarian assistance, food, water, and other social services [18].

With increasing access to social media in all its forms, ICT-based participation is expanding worldwide across several channels to meet community needs and enhance collaboration between communities and governments as they aim to achieve better and greater participation of society [19]. In this vein, governments around the world have made significant investments to utilize the potential of ICTs for participation to inform and to consult with public stakeholders [6]. The definition of ICT-based participation is considered in the follow.

2.2 E-participation

The concept of e-participation revolves around the promotion of community participation and open participatory governance through ICT. E-participation aims at improving access to information and public services, empowering individuals and benefiting their communities [20]. There is growing evidence pointing to the noticeable and rapid expansion of e-participation as a tool to enhance community engagement and interaction with local authorities [20]. Furthermore, the use of ICTs in public participation is termed e-participation [18]. Public participation acts as an interaction channel between the community and the government to formulate better decisions that have a positive influence on the lives of refugees [21, 22]. Thus, public participation can be considered the basic building block underlying e-participation [6].

The improved use of ICT in Palestine is a key component of national infrastructure to improve living standards, especially when used to facilitate public services [11]. The Gaza Strip faces challenges in the infrastructure of the water and sanitation sector, electricity, roads and the exacerbation of environmental problems [23]. Refugees and the population generally, depend heavily on local authorities such as municipalities for improvements [24]. To this end, this study seeks to investigate a form of ICT, which is e-participation between refugees and municipalities.

2.3 Sustainable Livelihoods, Use of ICTs and E-participation

The term “livelihood not only refers to people, their capabilities and means of living but also to the ownership and articulation of information that is vital for the effective utilization of the assets people use to obtain a living” [25:209] and to “maintain and sustain their life” [21:7]. ICTs play a crucial role in social and economic development as well as in ensuring sustainable livelihoods [22]. Furthermore, ICTs have a meaningful influence on sustainable livelihoods, which include natural, social, human, physical and financial capitals [26]. ICTs can also promote the delivery of strategies between the poor for their livelihoods [27] when institutions involved in promoting sustainable livelihoods are using ICTs to collect and disseminate information to the community [26]. In addition, public participation has become a central concept contributing to an increase in well-being [17]. Increased well-being is considered an important outcome of livelihoods [28].

ICTs used for sustainable livelihood is popular in the refugee context and many studies have focused on how ICT use is leverage either for providing information or through interactive mobile app to improve lives of refugees [1]. Studies on ICT use as a form of e-participation is lacking though in the refugee context. However, e-participation phenomenon is bound to exist in the context if refugees are interacting with authorities through the ICT channel to sustain their livelihood. To this end, this study, relying on the conceptual model in Table 1, seeks to explore the influence of e-participation consequence on refugee livelihoods outcomes.

2.4 Conceptual Model for the Study

Adopting on Sustainable Livelihoods Approach as used by [28]. However, while [28] underscored the analytical and functional role of ICTs as information technology, this study focused on e-participation consequences and livelihood outcomes conceptualized as an influence in refugee livelihoods. Table 1 shows the conceptual model for the study.

Table 1: Proposed Conceptual Model for the Study

<i>ICT-BASED PARTICIPATION CONSEQUENCES</i>	<i>LIVELIHOOD OUTCOMES BASED ON E-PARTICIPATION</i>
<ul style="list-style-type: none"> • <i>Increase Information and Raising Awareness</i> • <i>Save Time and Money</i> • <i>Long-Term Direct Relationships</i> 	<ul style="list-style-type: none"> • <i>Reducing Poverty</i> • <i>Increased Well-Being.</i>

3 Research Methodology

The purpose of this research is to study the phenomenon of ICT-based participation and its impact on the livelihoods of refugees in the context of the Gaza Strip, Palestine. The interpretive paradigm was to investigate this phenomenon. In the interpretive paradigm,

a researcher makes understands and interpretation transcribed documents, data and notes collected throughout the investigation [29]. Face to face interviews were done with representatives of local authorities and the data were analyzed using thematic analysis. The researcher encountered difficulties to obtain permission from service providers in the Gaza strip due to restricted access. However, the researcher managed to obtain approval to conduct interviews from some municipalities which are also mandated to providing community services. The qualitative approach is usually used to look at the creation of meaning or interpretations in particular contexts because they investigate phenomena from multiple aspects [30]. Furthermore, this methodology is convenient when the objective of the study is to investigate a phenomenon in a specific context, that has not or only marginally been addressed in other studies [31].

Written approvals were obtained from those municipalities and interviews were conducted between February and May 2019. Participants were informed that participation is voluntary, and they could withdraw at any time. The consent to recording the interview was obtained from the participants, except two interviewees who refused to record and simply answered the questions. Flexible and open-ended questions were asked to provide participants with the opportunity to give open and in-depth answers about the phenomenon of e-participation effects on the sustainable livelihoods of refugees in the Gaza Strip, Palestine. The interviews lasted between 30 to 40 minutes for each participant. Preliminary observations were written on each answer for initial analysis. When participants' answers were vague, subsequent questions were asked for more information. Thematic analysis was conducted to analyze the qualitative data [32]. The interviews were conducted individually and separately. During the individual in-depth interviews, their verbal and non-verbal information was registered on the phenomenon of "e-participation and its influence on the livelihoods of refugees in the Gaza Strip".

4 Study Sample

This study was conducted where more than sixty-five percent (65%) of the population lives as refugees in the Gaza Strip [33]. Thirteen interviews were conducted in four main municipalities in the Gaza Strip: *Rafah, Khan-Younis, Nuseirat and Jabalia*. The interviewees include three mayors, four public services and relations department officials, two community activities department official, two social media supervisors, and two members who work in ICT and e-service in their municipalities as shown in Table 2. Although the author noted that some women are working in the administrative field in the four municipalities (place of study), the approvals granted for interviews were for men only. The interviewees were between 26 and 50 years of age, ranging from 5 years to more than 15 years of experience* (Table 2). The qualifications of the participants are at least a bachelor's degree.

Table 2. Participants' Demographic Information

Posi- tions	Mayor of Mu- nicipality			Public Services and Relations				Social Me- dia Super- visors		Communi- ty Ac- tivities		ICT and e-Service	
ID	P1	P7	P13	P2	P3	P8	P12	P5	P10	P9	P11	P4	P6
Age	> 45	36-45	36-45	26-35	26-35	36-45	> 45	26-35	36-45	26-35	> 45	26-35	26-35
Exp*.	> 15	> 15	> 15	10-15	10-15	10-15	> 15	10-15	10-15	1-5	> 15	1-5	1-5

5 Findings and Discussion

Thematic analysis is conducted to analyze the qualitative data [32]. The thematic analysis was used for all interviews to attempt to understand and evaluate study data. A pre-defined set of themes were derived from the conceptual model. The transcripts were read several times. Extract of the transcripts that matched the pre-defined themes were grouped in the respective themes. Data analysis followed a deductive approach. Two main themes were categorized. The analysis section illustrates and discusses the follow themes: e-participation consequences and livelihood outcomes based on e-participation.

5.1 ICT-based Participation Consequences

In this main theme, *ICT-based Participation Consequences*, three outputs of the coherent interaction between refugees and service providers were described based on the existing e-participation implementation strategies.

Increasing Information and Raising Awareness. The data showed that interviewees focused on the role of e-participation channels to increase information and raise awareness among refugees relating to their well-being and basic needs. Participant **P12** said, "*e-participation is a very effective means to refute the rumours, raise awareness among people...*". That was confirmed by participant **P9**, "*the municipality's specialized media team prepares awareness-raising short videos through social media platforms...*". Whereas participants **P8** and **P11** emphasised that e-means of participation play a big role in transferring information -quickly among the local community.

Despite the negative view of many community members, including refugees, that the municipality is only for the collection of information, municipalities are trying, through e-participation tools and activities, to change this concept in society as much as possible, as asserted by participant **P13**. However, there is a different view from participant **P12**, who stated, "*providing basic information to the community members for increasing information and raising awareness is vague, because it does not make sense to publish unnecessary information...*"

Consequences of e-channels use and e-activities of communication and interaction between refugees and service providers from municipalities. The interviewees agreed on the positive role of these channels in sharing information and improving the quality of decisions within the municipality. This supports what [16] argued. Institutions and organizations involved in livelihoods also use ICTs to collect and disseminate information to the community [27].

Saving Time and Money. Through the analysed data of this sub-theme, it can be noted that e-channels have greatly helped people to minimize the transportation costs and efforts of visiting the services providers' offices, particularly the disadvantaged, elderly and disabled. Participant **P10** confirmed that "*citizens and refugees can communicate with the municipality through e-platforms and direct contact that save the transportation cost...*". This finding is equally supported by participants **P3** and **P7**. A further indication of "*saving cost*" agreed upon by participants **P4**, **P12** and **P13** is that some municipalities exempt the refugees from paying fees of some services if they use the intended electronic channels to communicate.

A majority of interviewees pointed to the importance of ICT-based participation in "Saving Time and Money" for all parties, whether providers such as municipalities, or beneficiaries such as refugees. Accordingly, this is in line with [34], who stated that the use of ICT-based tools such as mobile phones in livelihood activities reduces the frequency of movements and thus saves time and money [34]. However, participants **P4** and **P9** declared that the additional costs resulting from the use of e-participation channels, such as the cost of the Internet and electronic devices, cannot be ignored [35].

Long-Term Direct Relationships. The sub-theme of a long-term direct relationship was analysed as a result of the implementation of e-participation among refugees and decision-makers of the municipalities. The interpreted data of this study shows the role of e-participation channels in eliminating the functional pyramid of most transactions within the municipality and enabling the public to reach the decision-maker. Participant **P3** confirmed that he had "e-participation channels reinforce open-door policy and provides people with opportunities to communicate and interact with the mayor and decision-makers directly...". Participant **P8** agreed that "*e-participation helped to create a direct relationship and remove the barriers between the decision-makers in the municipalities, and members of the community ...*". Participants **P1**, **P2**, **P4**, **P5**, **P6**, **P9** and **P13** agreed with this argument.

However, access to the decision-makers and head of the municipality through e-participation channels does not completely rule out of institutional procedures, as Participant **P12** mentioned. He adds, "*the municipality has certain regulations and procedures that cannot be ignored even in the presence of direct relations between refugees and decision-makers within the municipality*".

Despite the weakness and interruption of the Internet in the Gaza Strip, as confirmed by participants **P4**, **P7** and **P9**, it can be argued that e-participation processes have contributed significantly to the formation of long-term direct relationships between refugees and decision-makers within municipalities. That is in line with [7].

Therefore, the first research question *What are e-participation effects as to the results of using ICTs-based tools and activities?* has successfully been addressed.

5.2 Livelihood Outcomes Sustained by E-participation

In this study, two main livelihood outcomes were highlighted: Reducing Poverty and Increased Well-Being [22].

Reducing Poverty. Poverty is a global issue [36] that cannot be solved solely by a municipality or limited interventions. However, data of this study show that e-participation channels support refugees measurably in unemployment reduction by the advertisement and circulation of job vacancies via e-channels. The municipalities are eager to utilize the unemployed by mobilizing them in implementing projects that serve the province by offering job creation opportunities and possibilities for a specific period. The Participant **P13** mentions, "*when the municipality decided to start the project "Paving Al-Fallujah Road" we announced through our e-platforms and social media requested need of manpower for that project*". Participant **P13** added, "*we have already received a lot of applications through a link (Google Form) was created by the municipality to be able to fill it ...*". This kind of advertisement was implemented by other municipalities interviewed, as Participants **P1**, **P7**, **P8** and **P12** declared.

Participant **P12** states, "*that e-participation channels have somehow contributed to the reduction of poverty. For instance, by interacting electronically with some refugees to identify their needs and trying to assist them by employing them in the municipal projects or exempting them from the fees of some e-services at times...*". Thus, it can be said that e-channels contribute to the reduction of poverty and unemployment amongst refugees. This is consistent with [36] and [37]. In contrast, Participants **P3** and **P11** assume that e-participation channels do not lead to poverty alleviation because of the deteriorating economy in the Gaza Strip, in support of [38].

The interviewees who supported the poverty-reduction view believe that this has been achieved due to several factors: advertising and circulation job vacancies of the municipalities' projects via e-channels, minimizing transportation costs to visit municipal offices and headquarters, as well as a municipal exemption on service and bills through online platforms as mentioned by participants **P4**, **P12** and **P13**. This is in line with [36].

Increased Well-Being. Increased refugee well-being was also among the livelihood outcomes [2] in this study. Through a number of evidences cited by interviewees, we can say that increasing refugee well-being can be achieved through electronic refugee petitions related to, for example, healthcare, safety, cleanliness and road repair. One of the most popular evidence of e-Petitioning is when Rafah governance residents appealed to the local and international communities in order to establish a hospital under the hashtag [#Rafah_needs_hospital](#) and [#rafahneedshospital](#), since about 65% of the population in Rafah are refugees [33]. This was confirmed by Participants **P12** and

P13. One of the interviewees mentioned another example of the role of electronic channels in enabling people with disabilities to appeal to the municipality to provide services and facilities. Participant **P7** said, "... *the municipality, after the appeals through social media platforms, repaired a road leading to the house of a wounded man who lost his leg during the recent war on the Gaza Strip*". Participant **P7** further stated, "... *a street in the refugee camp was very terrible, and drivers urge through social media platforms to repair the road. We have formed a committee to study this case, and it was addressed indeed...*". Based on many examples cited by the interviewees, the most famous was the appeals of Rafah residents, 84% of whom are refugees [33], through social media platforms, specifically Facebook and Twitter,, in order to build a hospital serving Rafah city. Participants **P12** and **P13** pointed out that the Kuwaiti government has responded to these appeals, which began in 2014. The participants confirmed that the Kuwaiti Government will begin work on this project soon. The interviewees also added that Rafah municipality is following up this subject closely. It can be argued that e-participation channels can help increase and improve the well-being of refugees. This is in line with [2]. Information, communication and knowledge, facilitated by ICTs, are important in the ability of individuals to formulate appropriate strategies for sustainable livelihoods [27]. In addition, the use of ICTs positively affects people livelihoods [39]. ICTs are a crucial element of positive change in terms of people's livelihoods, involving principles, assets, policies, and institutions [27].

Thus, the second question of this study: How livelihood outcomes are influenced by e-participation implementation? was answered.

5.3 The challenges of e-participation Implementation

The implementation of e-participation faces many challenges, especially in developing countries [40]. In the context of refugees in the Gaza Strip as determined through interviews, some challenges were identified. These include the culture of society [40] where some individuals, especially the elderly, are not convinced of the benefits of these electronic channels. Furthermore, frequent power outages in the Gaza Strip [38] and the lack of access to internet services for a segment of refugees due to their high cost or infrastructure [41] are further deterrents.

Among the obstacles mentioned by the interviewees and related to the implementation of e-participation, the prime obstacle is the dominant culture of society in accepting change. Therefore, it was necessary to motivate members of Palestinian society, including refugees, and urge them to use the available e-channels to communicate with municipalities. Participant **P7** said: "... *the adoption of the motivation principle will help to achieve the desired results and accelerate the process of change in the mainstream culture...* ".

6 Conclusion

The present study offers a more comprehensive insight from the municipality's perspective for e-participation consequences and its influence on sustainable livelihoods

of refugees in the Gaza Strip, Palestine. The municipalities are the main local authorities responsible for providing basic services such as water, electricity, infrastructure and social services to refugees. These services represent the basic needs of refugees' livelihoods. Municipalities are always faced with funding issues and should work in collaboration with refugees to better understand their needs, which will help to improve their planning for providing services with limited funding. E-participation which is a form of ICT usage reflects the interplay between the context and ICT usage and therefore reflects the interaction between the municipalities and refugees for clearer insights.

The findings of this study show that there are positive attitudes expressed by the respondents with the e-participation implementation that would be rendered feasible in the context of refugees. The authors acknowledge that there are also many possible and fewer actual negative effects of e-participation. However, the authors believe the benefits far outweigh the negative effects and focus on the paper is on how e-participation, given the lack of other currently available public participation channels, can benefit marginalized communities.

Two key themes were analyzed: e-participation consequences and livelihood outcomes. The former includes "increasing information and raising awareness", "saving time and money" and " long-term direct relationship". These themes did not produce a strong agreement, although there were positive trends of interviewees in all of these themes. Similarly, there were positive attitudes relating to the themes of e-participation-based livelihood outcomes, which are: "reducing poverty" and "increased well-being".

Given the positive orientations of the respondents in the discussed themes, e-participation has been found to be feasible in the context of sustainable livelihoods of refugees. This study, therefore, provides a basis for future work to provide a more coherent view of the phenomenon of e-participation and its implications within the context of sustainable livelihoods in developing countries, in contrast to the more traditional focus on the political context of e-participation in developed countries.

This study presented explanatory insight into ICT-based participation and its adoption in the context of poor, marginalized and disadvantaged groups using the aforementioned conceptual framework. Future research could look at refugees in other settlements. Future research could also enhance the conceptual model proposed in this study by formulating additional coherent propositions that present high-level guidance to researchers and practitioners working in similar contexts. Finally, the perspective of other actors, as services providers, providing services to refugees could be investigated.

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