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The Absence of Social Expenses and Social Profits in Housing Projects in Jordan

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Abstract This paper discusses the ignored social costs and profits in cooperative housing schemes. These projects focus on monetary costs and benefits. These projects ignore the social side, which is an important part that housing projects must consider. This study is necessary because of the importance of housing projects, and their contributions to the problems and solutions to the problem of different societies. Housing projects also play a significant role in supporting the construction industry nationwide. The importance of the study lies in the fact that cooperative housing projects often ignore the social costs of housing. Therefore, the aim of this study is to shed light on social expenses and profits in cooperative housing projects, and to make suggestions for improvement. Literature is reviewed on the available research work that has previously been done on housing schemes in Jordan. However, the focus of this study is on examining the housing schemes conducted by the Jordanian Engineers Association. The review takes care of the different opinions of architects and thinkers on the issue of housing in Jordan as well as a case study to help address the problem. The cooperative housing schemes in the Jordanian Engineers Association aim to grant a plot of land each to members of the association to enable them to build their own independent homes. Further, the study helps to understand the neglected social expenses and social profits, and to revive those benefits in housing projects, because these projects depend on the financial side while ignoring the social part of these projects. The study ends by recommending more government power in planning and designing private cooperative housing schemes, because government's role is necessary to support and monitor these projects to ensure the existence of social benefits in them.

Keywords Residential Societies, Housing Schemes, Social Costs, Social Benefits in Residential Projects

1. Introduction

There exist hidden expenses and benefits in residential projects. These expenses and profits are found in all types of housing projects. Besides, they are there even in public projects, but they are different from private ones.

This paper aims to discuss social expenses and social profits, considering their presence in housing schemes found out by different societies in Jordan.

This paper starts with a literature review. It explains the social costs and benefits through a detailed analysis of the housing schemes. The case study of this research is the cooperative housing schemes set up by the Jordanian Engineers Association. Therefore, the study concentrates on highlighting appraisal, profitability, several types of expenses, cost-benefit analysis, and feasibility reports. It examines, checks, and evaluates the sensitivity analysis for the cooperative housing projects in the country. Cooperative housing schemes are those schemes set by different non-governmental organizations or societies. Further, the study includes social aspects as the main variable.

The research hypothesis assumes the necessary presence of social aspects in all housing projects. Although social aspects are present in public housing projects, these aspects are missed in private or cooperative housing projects.

2. Review of the Literature

There are many papers, studies, and conferences on

housing projects in the Arab World. However, investigators find little research about residential projects in the kingdom of Jordan. On the other side, researchers could not trace papers on the absence of social expenses and social profits in residential schemes in Jordan.

However, there are many studies in developed countries on the topic. Some of them support the hypotheses of this research, help understand the topic, and heighten knowledge to support this paper.

The focus of this literature review is to review the points of view of other writers and to use the writings as groundwork for new additions. It helps improve the abstract or hypothetical outlines of this research.

2.1. Jordanian and Regional Studies

- Nusair and Abu Anza [1] conducted research in Jordan on subsidizing residential neighborhoods. The result of their study on housing shows that it is preferable to provide low-income and middle-income people with a piece of land. This will give them a chance to construct their houses at intervals according to their real need and allow them to build houses in installments. Despite this, this creates many difficulties, because members of cooperative societies and organizations have to choose lands far from cities since they need to get low price land, especially if low-income people are considered.
- Joenat, Hala, from Jordan, conducted a study on how housing schemes support the stability of sustainable cities. The study discussed strategies for setting districts. It suggested collaboration between the public and private sectors. It proposed that authorities should get involved in all residential projects. Likewise, the research recommends extra administrative power for private residential schemes [2].
- Nusier, A, conducted a study on housing policies and programs' reality and expectations [3]. In this research, Nusair proposed more incentives and financial backing for the private and cooperative projects, which can get better-developed housing industry in Jordan.
- Abu Al Haija, Ahmed, researched different policies and approaches to perform better housing in Jordan. Further, the research examined unintended housing neighborhoods that result in the start of slum areas [4]. The study tackled the problems in congested slum areas and crowded cities.
- The World Bank and the United Nations did many studies and short reports on the housing issues. Among them a study in Iraq analyzed housing projects in Iraq entitled: A report presented before the seminar on highlighting the importance of corporation between private housing and public housing [5].
- Yousuf, M; researched the responsibility of private projects in conducting housing strategies [6]. The researcher reviewed many stages and discussed Egyptian practice in sponsoring residential projects. According to this research, authorities gain from experiences of different countries, especially developed countries, and the experience of India. Further, the policies and strategies of mentioned countries depend on planning, preparing substructure, and setting up essential services. Then, leaving the superstructure and the rest for the individuals themselves to complete.
- Proceedings of the 1st seminar on housing concerns held in Kuwait in 2010 [7].
- Proceedings of the 6th workshop held in (2003), by Housing Corporation in Jordan about Appraising Housing Schemes [8].
- Proceedings of the 3rd Housing Symposium held in Jordan in 2014 [9].
- Proceedings of the 4th Arabian Conference on housing issues; took place in 2016 in KSA.

Some of these researches address new or early issues that would benefit from a general thought. Others conclude that neighborhood needs more social spaces to fulfill human psychological and social needs.

2.2. Studies in Foreign Countries:

- Helen F. and Michael P. researched the Costs and Benefits of Housing Mobility Plans for low-income people [10]. The main aim of the research was to offer social improvements in low-level zones to the poor to move from high to low-level districts. According to this research, these shifts could provide better services in the new neighborhoods.
- In Canada Onia Zhang conducted important research on cooperative housing as a pursuit of happiness [11]. The paper examined residents' living experiences in the shared courtyards of cooperative accommodation in Canada. The study suggested that the courtyard was a component to encourage social happiness because it contributed to the happiness of residents. The paper finally suggested a courtyard garden housing scheme that can be a prototype for universal application. The main conclusion was that there was a need for more courtyards in the urban context. Further, the study presented successful Canadian models in this field and presented successful samples of Canadian cooperative housing experiences that contributed to broader applications.
- Shimizu and Com researched the housing market in Tokyo [12]. The study focused on job vacancy costs. It was entitled: A try to measure the social costs of lacking information. The study confirmed the social cost of housing was not clear, because of the lack of information. Despite this, the study expected a large social cost for housing projects, whether private sector projects or public sector projects.
- The Institute for Research on Poverty at the University of Wisconsin has conducted research on poverty and housing. This organization presented

many working papers on the costs and benefits of housing programs, especially housing projects for low-income people [13].

This review shows some gaps that give the reason for doing this research, and lead to the idea of this study. Further, the literature review helps include some recommendations or implications for future research.

Furthermore, this paper argues that the hypothetical for building theoretical and practical inputs using the literature review will be advanced by explaining what others wrote about the subject.

Based on findings that social costs and benefits are missing in housing projects, the research here addresses such gaps, and discusses the importance of these aspects for the building and housing industry.

3. Case Study

The case study presented by this research is the cooperative housing projects in Jordan. A most famous example of this housing is the projects of the Jordanian Engineers Association, because their projects have spread all over Jordan.

The cooperative housing projects began in the union in 1992. The main objective of these projects was to provide a plot of land for each engineer. These plots are meant for individual houses for the family of the individual engineer.

The Association started these projects in the form of plots of land. It provided the main services for these projects. Later, over time, land prices rose, and this made the Jordanian Engineers Association buy the least expensive plots of land, which were often located on the outskirts of cities.

Nevertheless, the Jordanian Engineers Association could set up about two hundred housing projects [14]. This formed a significant and influential contribution to the housing sector in Jordan.

Then the orientation of the Association changed to diversify housing projects. In 2011 they started building apartment buildings. Thus, delivering apartments instead of the plots of land they were giving out in previous projects.

Financing these housing projects depends on engineers, and engineers in Jordan are considered middle-class. The costs incurred by engineers include all construction costs, including pavements and construction fees. It also contributes to the costs of making and paving roads. Because of such shortcomings and limitations, there are no playgrounds and green spaces that may add to the social values of the place.

Payment methods for plots distributed by the Jordanian Engineers Association are:

- Cash.
- Deposit payment.
- Installment basis.

Figure 1. Um, Hulelefah 1 Housing Scheme [14].

Figure 2. Um, Hulelefah 2 Housing Scheme [15].

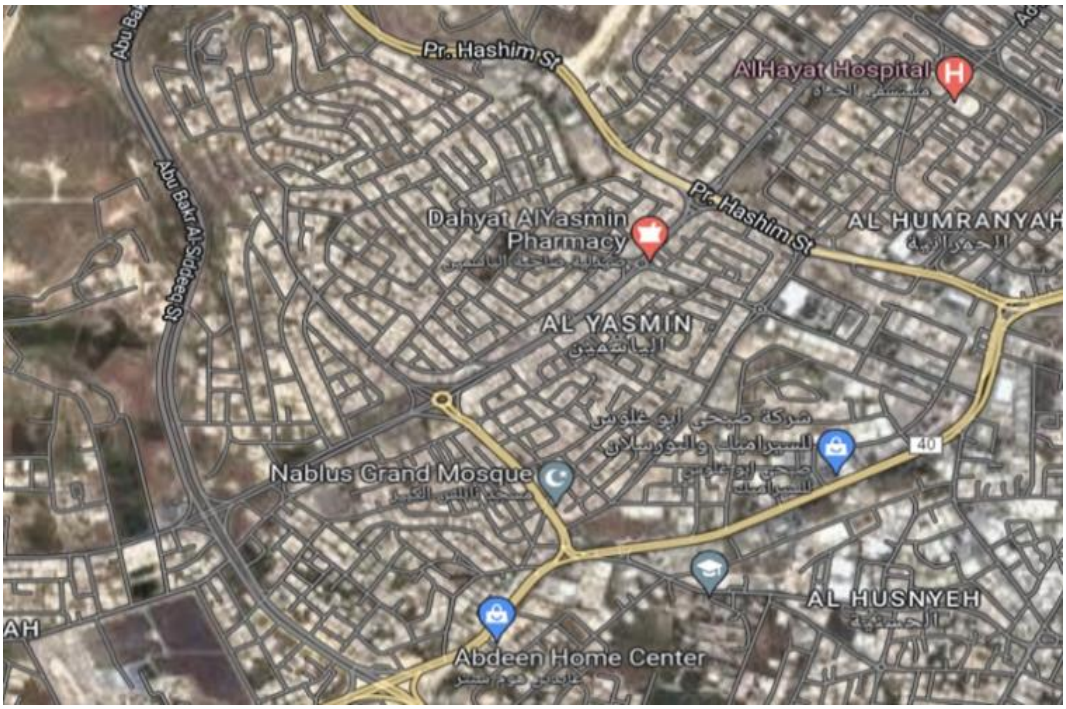


Figure 3. Al Zaitonah Housing Scheme is well designed and merged with the city [15].

Some housing projects of the Association are merging with the city, which contributes to forming the bordering parts of the city. But not all the Association's projects give enough space for open and green spaces and public squares (Fig. 1 & 2).

Another example of a successful housing scheme was done by the Engineers Association in the Al Yasmeen neighborhood in Amman. Its success was because it was adjacent to the built parts of the city (Fig. 3). This means the housing scheme did not need new infrastructure services such as main water supply, electricity, sewage systems, and main roads.

However, most of the proposed projects do not merge with neighboring cities, either because of improper planning and design or because of faraway distances from nearby cities (Table 1).

The following table shows housing schemes with empty plots, although the Engineers Association handed over the plots to members many years back:

Table 1. Schemes with paved streets and empty plots.

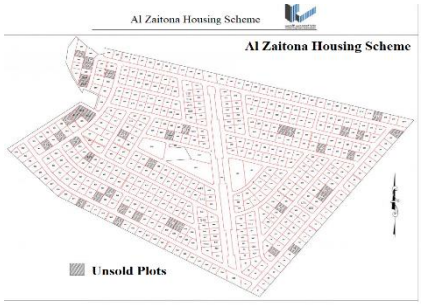
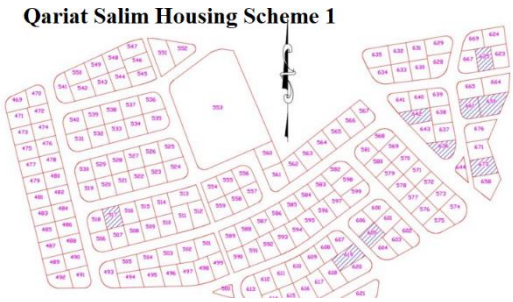
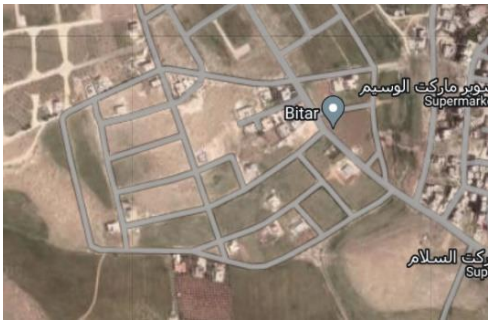
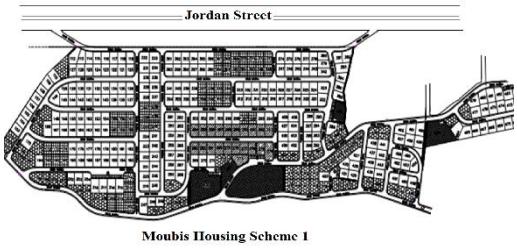
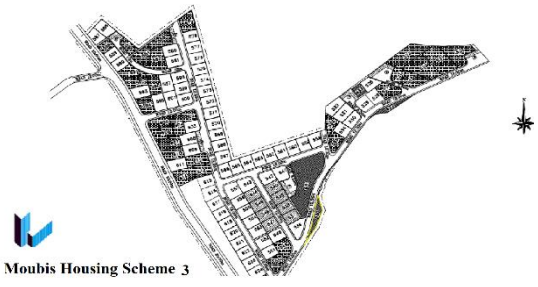
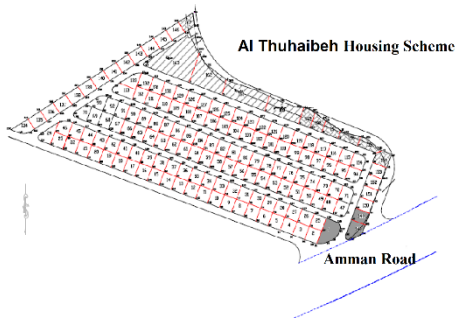
Name of Scheme	Plan	Existing aerial views, Date: 2021 [16]
Al Zaitona Scheme [17]		
Qariat Salim 1 [18]		
Moubis 1 2010 [19]		
Moubis 3 2011 [19]		
Al Thuhaibeh 2015 [20]		

Table 1. Continued

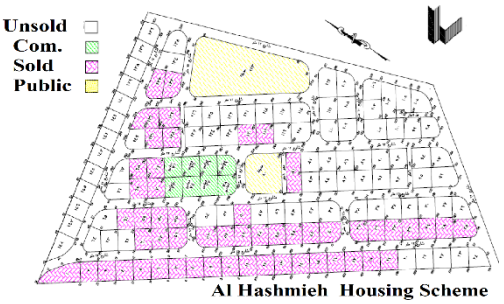
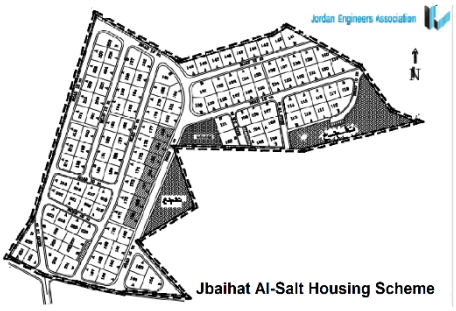
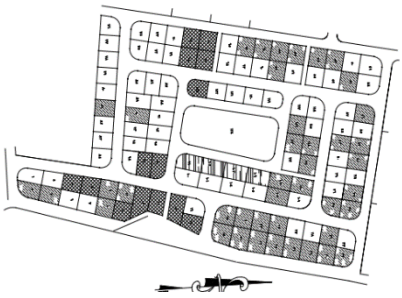
Al Kamsheh [21]		
Al Hashmieh [22]		
Jbaihat Al-Salt 2011 [22]		
Al-Yadodeh [22]		
Onaibah, Jerash [23]	Allotted before 21 years	

Table 1. Continued

Hosban Housing Scheme [23].	A plot size misuse, without considering any space for public use.	
Baidat Al Salalim [24]	Allotted before 19 years	

3.1. Assessment of Housing Schemes

The appraisal is the most major step in the project evaluation process. That's because the concern here is about money. It is known that land prices are rising day by day, and the reasons for rising of land are the change in the value of the money and the inflation. Besides, taxes contribute significantly to changes in the value of money. Therefore, planners must consider these changes from the start of each project, because not taking these changes into account will cause problems in the future. It is expected to face various complications, and the most important of which is the complete failure of the project. Of course, the people affected by the failure of the project are the users, as the authorities begin to address the problems by imposing extra taxes on the users.

Further, it is important to take the time value of money into account [25], because this value is important in studying projects and more important in evaluating them. For example, if we receive a hundred thousand Jordanian dinars now, then its value in the future is equal to more than a hundred thousand dinars, which we receive after several years. Also, there are limitations to the authorization to build on the plot in the future to avoid speculation.

3.2. Effectiveness in Housing Schemes

Profitability is one of the most important aspects of project evaluation. Therefore, economic analysts are interested in its definition and classification. Economists use discounted cash flows to understand and rank profitability. Thus, specialists show that its analysis requires considering financial payments:

- Cash payment for plots of land and services provided by the organization.
- Payments paid in installments to be received from the beneficiary on an annual basis.

To estimate and evaluate profitability, these values must be divided into prices based on their quantities. Because of this, economists focus on the importance of inclusive economy not found in private housing projects. Therefore, they see the need to estimate the cost well and consider the social return and shadow prices, to ensure their presence in private and public housing projects.

4. Ignored Social Expenses and Profits

Everyone knows the main objective of private projects is to serve the groups formed for that purpose. Thus, these projects are most profitable. The profit in it is directed to the individuals; therefore the focus of all cooperative institutions is on profit first. Whereas there is a need for correlation between social and psychological aspects for the need for success, which in turn adds to the accomplishment of complete improvement inside society [26].

So, the search for the cheapest prices is performed, and the focus is on exploiting every part of the plot of land. So, small plots are distributed. Therefore, public spaces, squares, and gardens are ignored; thus, alienation in architecture arises and humanity in architecture starts to fade [27] (Fig. 3 and 4).

Because profit is considered primarily in cooperative or private housing projects, and social spaces are ignored, the new projects depend on the spaces provided by bordering

areas of the city. This is the worst type of planning that reaches a level of crime.

Cash profits are undoubtedly a major target for private housing projects. This means these projects do not care about the social and psychological aspects of individuals. Cash profits are not a sound measure of project success [27], especially when it comes to the intangible aspects. Future decisions must therefore depend on both future costs and benefits.

The cost-benefit analysis of the project is based on the analysis of social benefits, which is conducted to evaluate projects through assumed prices for the future instead of expected future prices. Besides, the shadow price is one of the most important aspects to be studied and analyzed when analyzing social benefits. The importance of the shadow price comes from the need to analyze social benefits, because the discount rate is different from the market interest rate. It is important to know the shadow price is the closest to the truth. It is he or she who shows the real social costs and benefits in the market, which the actual price cannot show. However, some authors argue that assuming shadow prices is a false theory, because it does not represent the current actual prices [27].

4.1. Costs of Land, Construction, Maintenance, and Services

In most housing projects, the cost of land is the main cost of the project. And, because the cost is high whenever the project is close to the city, those responsible for choosing housing land are looking for the cheapest, and the cheapest is outside the cities (Fig. 4, 5 & 6). This affects social benefits and costs. Thus, there is no social cost-benefit analysis of those projects. Further, associations and institutions sometimes choose fertile agricultural land for housing. This is what the Jordanian Engineers Association has done in many of its projects. Thus, it helps to extend towards the outskirts of cities. The result is food problems and regulatory problems (Fig. 7 & 8).

Figure 4. El Hashmiah Housing Scheme, away from the city with no building but road pavement [28]

Figure 5. Zainat Al-Rboua is another example of a faraway housing scheme [29].

Figure 6. Souf Jerash is another example of a faraway housing scheme [30].

Figure 7. Al Esra housing scheme and Al Thhaibeh housing scheme in the center of fertile agricultural lands [31].

Figure 8. Al Tnaib Alsekka housing scheme in the center of fertile agricultural lands [32].

All construction costs are the future responsibility of customers; not only the costs of construction, but customers must pay all other expenses for construction, including contribution to paving roads and sidewalks, water and sewerage installations, electrical installations, also to other expenses related to licensing fees [33].

Maintenance costs do not exist in the initial stages of the projects, because the plots of land remain empty without construction for many years. On the other hand, there is no service except paved roads. But, in the future, the maintenance costs will be large. The first of these are the streets that were paved many years ago and will need to be re-paved. Further, in the long run, this includes maintenance of finishes and fixtures, cleaning, servicing, and replacement of damaged parts and other small items (Fig. 9).

Figure 9. Pavements and some services took place while no single building is constructed.

4.2. Costs of Disturbance, Costs of Running, and Indirect Social Costs

Disturbance costs are the costs resulting from changes during maintenance. It includes the emergency costs, which face the project during the maintenance period, which lasts for years. So, there is the need to pay attention to these costs. Disruption costs include the costs of plans, their follow-up, and their adjustments. It also includes the costs of management, follow-up committees, transport, and travel costs.

One of those costs is what society pays because of distances. Choosing residential projects away from cities leads to people traveling long distances. It also makes it difficult to move from home to work, shopping, and others, because most of the proposed neighborhoods do not have spaces for shops, schools, or even open spaces (Fig. 8 & 9).

Indirect social costs are the costs that private housing projects ignore. This is because of the focus on financial profit only. However, social costs are considered indirectly because their value is not estimated when studying projects. These costs include lost time because of long-distance trips, psychological fatigue resulting from transport congestion, reduced desire to work after traveling long distances, impact on social relations, school trips for children to and from school, absence from the family and worry about it, and finally, fuel expenses.

Despite the importance of the costs, the planners and economists did not put a value on them. Since they cannot set up fixed measurements for their estimation, there are no fixed criteria for its evaluation [34].

5. Analysis of Social Feasibility

The research did not find studies on the proper feasibility of cooperative housing projects, especially the projects of the Jordanian Engineers Association. It seems that this applies to all cooperative housing projects in Jordan. All these projects ignore the cost-benefit analysis, because these projects do not consider a priority.

The social cost-benefit analysis includes several aspects, including analysis of different alternatives, attention to potential risks, and studying future economic development, and ending with a market study and the final financial cost. These social factors are important; therefore, architects should bring back the human aspects to buildings and introduce the human factors to urban fabric for a better environment and happy life [35].

The simplest cost-benefit analysis for projects is to "include a social price in everything" [25]. This means that importance is given to the social aspect of housing projects. Therefore, there is the need of using shadow prices to evaluate projects rather than market prices. Thus, some analysts believe the housing study should be conducted in the long term, because it is not possible to conduct a partial analysis of housing in the short term since housing projects frame an integrated long-term system.

The social cost-benefit analysis is important to achieve population stability, as this analysis encourages people to settle in the neighborhoods in which they live, without encouraging them to search for neighborhoods with better services, because respect for the social dimension in societies, residents think about improving the conditions of their homes and neighborhoods, and not think about emigration [13].

5.1. Difficulties in analyzing Costs and Benefits

Social cost-benefit analysis is essential for all projects, especially for private projects. Then it becomes more important when it comes to private and cooperative housing projects. It is necessary to realize the analysis of this project facing many problems because it differs from public sector projects and various government projects.

Dealing with items of unfixed quantities is one determinant of the analysis: this, besides the problems of the economy, currency, inflation, and financial values. This analysis also faces the expectations of the policies and strategies of successive governments, which are rarely stable in the developing world.

5.2. Sensitivity Consideration

Economists rank sensitivity analysis second to social cost-benefit analysis. Although it comes in the next stage, its implementation is necessary, even in projects that do not have a social cost analysis.

It is necessary to analyze the sensitivity of the housing projects because it shows the extent of the small size of the project. Then it identifies potential risks, warns of them, and stresses the need to pay attention to them. Further, sensitivity analysis is one of the most successful methods of dealing with indeterminate quantities and costs. This analysis shows the size of the project and its limits, as the current social value of a hundred thousand dinars does not show the extent of the large or small size of the project, because this may form a small balance between the high benefits and costs and may form a great balance between the few benefits and costs.

Further, it is easy to apply sensitivity analysis by governments, and this comes in the form of laws [25]. This is one of the most successful ways to deal with unspecified quantities.

Sensitivity analysis is the final stage of project evaluation, and it is so important that it must be done, even if other stages are completed. Although it suffers from many failings, one of which is evaluators use it as an excuse: (not to measure the elements that can be measured), in addition to the presence of many alternatives for different values.

Therefore, it is important to define as many non-quantitative quantities as possible, even by imposing legislation.

6. Observing Cooperative Housing Schemes

The real appraisal of cooperative housing projects does not exist in most projects. Where appropriate suggestions are not made, and necessary decisions are not taken on time; immediate decisions are taken on-site. Therefore, auditing and the follow-up of the project become more difficult because project performance is not based on clear facts. Therefore, it is difficult to measure performing projects since it excludes variables as an integrated system [36]. Thus, the evaluators must integrate the relevant elements into the one project, and then examine them separately.

6.1. Neglected Profits and Present Social Value

"Social income is defined as the value of the increase in supply minus the value of the increase in demand" [36]. However, social profits can be similar for all projects, whether public or private. Therefore, it is necessary to apply laws to all projects, to ensure achieving social benefits.

This study showed that appropriate appraisal is missing in the case study of this research. Therefore, the value of the social benefit remains negative, despite the benefits achieved by these projects. Although, based on the presence of some benefits, the specialists stressed the appraisers should consider the use as a social benefit [36].

Annual social profits can be collected to form a clear measure for evaluating the project, and this evaluation is done by bearing in mind the annual social profits. So, evaluators must consider rates of interest used in the market.

When the cost-benefit analysis is comprehensive and appropriate, estimators can decide the exact interest rates. However, two important points of view must be noted: First, measuring social profits in the same way that similar cases and schemes exist. The second is the value of money which after years will be less than its value now. Therefore, watching these opinions is useful, as it rids the housing projects of the obstacles they will face in the future.

6.2. Employment

The main objective of private and cooperative housing projects is to provide each member with an independent plot of land. These cooperative societies also provide all main services, such as electricity delivery, drinking water, sewerage services, paving streets, and all public services for the site.

However, these services need workers who will carry them out, and therefore workers must be considered, and they should be dealt with in a good and fair manner. Accordingly, owners must pay the workers' wages on time without delay, and they must consider the levels of labor in different jobs. Further, it must be considered that high wages and moral incentives sometimes produce a better outcome. Besides, labor migration should be taken into concern because labor migration from the countryside to the city has a significant impact on employment.

Some cooperative housing projects have many social benefits, despite that few of those benefits are found in the projects of the Jordanian Engineers Association. This was done without analyzing the social cost and benefit, and the analysis was not done before the start of the projects to

show those benefits, which make the social profits in those projects mostly negative, while they are supposed to be positive.

7. Appraising & Approached for Assessment

Appraising housing projects is part of monitoring. Therefore, the evaluator must consider the rights of neighbors. Another critical issue to be considered is the conflicts of interests between planners, owners, administrators, and the community. In addition, considering these projects contribute a lot to the development of the country. However, such correlation can be clarified through: "improvement takes place if individuals, companies, and administrations desire to develop [32]".

7.1. Approaches for Assessing Projects:

Evaluators must use many procedures of calculation to appraise the cooperative housing projects. Some of these approaches are:

- Approximating incomes.
- Evaluating public housing schemes.
- Appraising benefits given to fellow citizens.
- Guessing the actual rate of interest.
- Valuing payments.
- Evaluating the social benefits for society.
- Estimating present social value.
- In conclusion, specialists must suggest projects if they have benefits for the community; or else, the project should be ended from the beginning.

7.2. Variance between Assessing Private Projects and Assessing Public Projects

The cost-benefit analysis for private or cooperative housing projects is like public projects. Despite that, they are different in the principles and the benefits: In public projects, managements spend money for society. While in the private sector, they may spend the money on mistaken developments; also, they may settle housing projects in places without considering the priority; or the capital may be kept in banks without spending.

As for as benefits are concerned, public projects support the national wealth by rising wages and rising income levels, resulting in more spending. Therefore, authorities must stress carrying out the social cost-benefit analysis for cooperative housing schemes, to ensure social benefits. This can be achieved through effective legislation [37].

8. Conclusions

For every cooperative housing project, the engineers collectively are the owner of the overall project. From here it becomes clear that individuals are responsible for the entire project, starting with dividing land, passing through basic services, then building and construction in detail, and ending with maintenance and follow-up.

These projects are guaranteed profits. And the financing is assured, because the buyer is the one who puts the idea of setting up the project, and he or she is the planner of the project. Also, he or she is the one who pays capital for the project. But the loser in this deal is the social values because they are the ones sacrificed in exchange for the expected material profits.

Cooperative housing projects are financially and administratively independent. There is no direct government intervention in such projects. But governments intervene indirectly to control these projects. It interferes through laws, rules, and legislation, because every project needs to be approved by the government. The government's control over housing projects is represented in many ways, including approvals, allows, and identification of groups benefiting from those projects. Governments also specify the parts of the city the project can work on. The government interferes by allowing the needed materials and equipment, import and export, and the consequent tariffs and customs duties. In the end, governments intervene with the authority to approve or reject the organizational scheme and land uses for any housing project.

This research finds the focus of cooperative housing projects is on monetary profits, and these projects do not consider social measures. Therefore, the research believes that governments should intervene in these projects. The goal of the intervention should be to secure the lost social profits, because reality confirms that housing projects in developing countries lack a social concern. And so, it needs to intervene the authorities to play this role. The governments can intervene through support in financing, imposing sanctions, or linking the approvals to the existence of studies analyzing the social costs-benefits of the projects.

The proposal for government intervention comes due to the difference between housing projects in developing countries and those in developed countries. Because, in developing countries, politics interferes in most projects, and no interest in analyzing social concerns, besides the time that does not take the necessary attention.

So, planners and economists should pay attention to social cost-benefit analysis and focus on this in private and cooperative housing projects, because these projects interact with society more than other types of projects.

REFERENCES

[1] Nusair, A., Anza, A, "Residential and Planning Corporation", Proceedings of 6th. Workshop on Monitoring

Housing Schemes, Amman, Hashemite Kingdom of Jordan, 2003. (In Arabic)

[2] Joeenat, H., "Housing Projects as a helper for sustainable Cities", Arabian Regional Conference, Amman, Hashemite Kingdom of Jordan, 2008, (In Arabic)

[3] Nseer, A., "Housing Planning: existence and outlooks", Seminar on Residences and the authenticity of expectations, Hashemite Kingdom of Jordan, 2004, (In Arabic)

[4] Al Heege, A., "The direction of a complete Planning to solve housing issues in The Middle East", Journal of Isl. Uni. West Bank of Jordan, Vol. 9, Issue 1, P-P, 9-58, 2001, (In Arabic)

[5] Naseer E., Nseer A., "Jordan practice in sponsoring accommodation projects", K.S.U, Saudi Arabia, 2007, (In Arabic)

[6] Joseph, M., "Responsibility of Non-Governmental Organizations in Accomplishing Residential Planning", Minutes of 2nd. Arab Seminar on Shelters, Bagh. The Republic of Iraq, 2012

[7] Sharifa Alshalfan, "The right to housing in Kuwait: An urban injustice in a socially just system", the London School for Economics and Political Science, London, 2013, online: http://eprints.lse.ac.uk/55012/1/__Libfile_repository_Content_Kuwait%20Programme_Alshalfan_2013.pdf (Accessed June 12, 2022)

[8] Proceedings of the 6th. Seminar on Appraising Houses; Residential and Planning Corporation, Amman, Hashemite Kingdom of Jordan, 2003, (In Arabic)

[9] [9] Records of the 3rd. Arab Seminar on Shelters: Discovery of appropriate answers for housing Issues, Amman. The Hashemite Kingdom of Jordan, 2014, (In Arabic)

[10] Michael P. Johnson, Helen F. Ladd & Jens Ludwig, "The Benefits and Costs of Residential Mobility Programs for the Poor", Housing Studies, 17:1, 2002, P-P, 125-138, Online: https://www.tandfonline.com/doi/abs/10.1080/02673030120105947 DOI: 10.1080/02673030120105947

[11] Zhang, Donia, "Cooperative Housing and Cohousing in Canada: The Pursuit of Happiness in the Common Courtyards, Canada", Journal of Architectural Research and Development 2(1):12-22, 2018, DOI: 10.26689/jard.v2i1.279

[12] Rahman, s & Vanier, Dana & Newton, Linda, MIIP Report: "Social Cost Considerations for Municipal Infrastructure Management", National Research Council Canada; Chehero Sh. and Others. "An attempt to quantify social costs and benefits", Study of Rural and Provincial Growth Studies; Vol. 16, 3, p. 210–230, Nov. 2004. Doi 10.4224/20377011.

[13] Carlson, D., Haveman, R., Kaplan, T., Wolfe, B., "The Benefits and Costs of the Section 8 Housing Subsidy Program: A Framework and First-Year Estimates", Institute for Research on Poverty, Discussion, 2010, Paper no. 1380-10, P.1 https://www.irp.wisc.edu/publications/dps/pdfs/dp138010.pdf (Accessed June. 15, 2022).

[14] Google maps,. https://www.google.com/maps/@32.0222877,35.9037038,1823m/data=!3m1!1e3?hl=en-US (accessed July 1, 2022)

[15] Google maps, https://www.google.com/maps/@32.0113357,35.9043647,1244m/data=!3m1!1e3?hl=en-US (accessed July 1, 2022)

[16] Investment and Real Estate Department, Jordanian Engineers Association, https://www.jea.org.jo/Ar/Pages/%D8%AF%D8%A7%D8%A6%D8%B1%D8%A9_%D8%A7%D9%84%D8%A7%D8%B3%D8%AA%D8%AB%D9%85%D8%A7%D8%B1_%D9%88%D8%A7%D9%84%D8%B9%D9%82%D8%A7%D8%B1%D8%A7%D8%AA (Accessed June. 8, 2022).

[17] Google maps, 31°44'49.8"N 35°53'51.8"E - Google Maps (Accessed June. 8, 2022).

[18] Google maps, https://www.google.com/maps/place/Salem,+Amman/@31.8342863,35.9938988,16z/data=!3m1!1e3!4m2!3m1!1s0x151b599026ba0199:0x98b3d63eb2db0f9e?force=qVTs2FOxxTmHHo79-pwa&source=mlapk (Accessed June. 8, 2022).

[19] Investment and Real Estate Department, Jordanian Engineers Association, https://www.jea.org.jo/portal/association-lands-locations/ (Accessed June. 8, 2022).

[20] Investment and Real Estate Department, Jordanian Engineers Association,https://www.google.com/maps/dir//@31.8107677,35.9995312,563m/data=!3m1!1e3!4m2!4m1!3e2 (Accessed June. 8, 2022).

[21] Investment and Real Estate Department, Jordanian Engineers Association, https://www.jea.org.jo/portal/land-ads-ar/ and online: https://www.jea.org.jo/EBV4.0/Root_Storage/AR/Ads/%D8%A7%D9%84%D8%B5%D9%88%D8%B1_%D8%A7%D9%84%D8%AC%D9%88%D9%8A%D8%A9_-%D9%85%D8%B4%D8%B1%D9%88%D8%B9_%D8%A7%D9%84%D9%83%D9%85%D8%B4%D8%A9_-_%D8%A7%D9%84%D8%A8%D9%8A%D8%B1%D8%A9.pdf (Accessed June. 12, 2022).

[22] Investment and Real Estate Department, Jordanian Engineers Association, https://www.jea.org.jo/portal/land-ads-ar/ (accessed July 1, 2022)

[23] Google maps, https://www.google.com/maps/@32.2438378,35.9481916,992m/data=!3m1!1e3. (Accessed June. 8, 2022).

[24] Investment and Real Estate Department, Jordanian Engineers Association, http://maps.dls.gov.jo/dlsweb/index.html (Accessed June. 8, 2022).

[25] Little, I. and Mirrlees, J., "Project appraisal and planning for developing countries", Heinemann Edu. Books, UK, 1977, PP.11,129, 133 FF.

[26] Smadi, Suhaib, Rababaa, Adnan, "Psychological Theory of Economic Development from the Perspective of Islamic Economy", Jordan Journal of Islamic Studies, ISSN: 2079-5076 (Print), ISSN: 2790-1319 (Online), Deanship of Academic Research, Al al-Bayt University, Mafraq, Vol 18, Issue1, 2022, P. 414, (In Arabic) https://aabu.edu.jo/AR/DeanShips/AcademicResearch/Jois/Pages/Issues.aspx (accessed July 1, 2022)

[27] Sqour, Saqer, "Attaining Human Aspects to Avoid Alienation in Architecture", Journal of Civil Engineering

and Architecture 12, P-P. 121-131, 2018 DOI: 10.17265/1934-7359/2018.02.006

[28] http://maps.dls.gov.jo/dlsweb/index.html (Acc. on June. 8, 2022).

[29] زينات الربوع - Google Search (Accessed June. 8, 2022).

[30] Investment and Real Estate Department, Jordanian Engineers Association, Google maps, https://www.jea.org.jo/EBV4.0/Root_Storage/AR/Ads/%D8%A7%D9%84%D8%B5%D9%88%D8%B1_%D8%A7%D9%84%D8%AC%D9%88%D9%8A%D8%A9_%D9%84%D9%85%D8%B4%D8%B1%D9%88%D8%B9_%D8%AC%D8%B1%D8%B4.pdf (Accessed June. 12, 2022)

[31] Online: https://www.youtube.com/watch?v=_syv-R1igTo (Accessed June. 11, 2022).

[32] Online: https://www.almehanya.com/Project/121025/%D9%85%D8%B4%D8%B1%D9%88%D8%B9-%D8%A7%D9%84%D8%B7%D9%86%D9%8A%D8%A8 (Accessed June. 8, 2022)

[33] Stone, P. A., "Building design evaluation, Cost-in-use", ESFN, SPON, London, 1975, pp.71, 142

[34] Thayer, Watkins, "An Introduction to cost-benefit analysis, Department of Economics", S. J. State University, USA, 2009, P. 5, online: http://www.applet-magic.com/cba.htm

[35] Saqer Sqour, Abdelmajeed Rjoub, Rami Alshawabkeh, Safa Al Husban, M.A.SH. Al-Taani, Ahlam Eshruq Labin, Humanizing unfriendly Buildings and Spaces by Architectural Thought (Case Study: Houses from Jordan). Civil Engineering and Architecture, 10(3): 1047-1055, 2022. DOI: 10.13189/cea.2022.100321

[36] Russel. J., "Economic aspects of public housing", Volume 8, Sage Library of Social Research, London, 1974, P.70., 143

[37] Sqour, Saqer; Tarrad, Mohannad; Alfifi, Afnan; Younis, Sara, "The Influence of Hindu Architectural Elements on Islamic Architecture in India" (Mosques as a Case Study), Jordan Journal of Islamic Studies, ISSN: 2079-5076 (Print), ISSN: 2790-1319 (Online), Deanship of Academic Research, Al al-Bayt University, Vol 18, Issue 2, June 2022, P.25, (In Arabic), https://www.aabu.edu.jo/AR/DeanShips/AcademicResearch/Jois/Pages/Issues.aspx