MEASURING THE PAYMENT BURDEN ON PUBLICLY BUILT CONDOMINIUM HOUSES (A CASE STUDY ON LOWER AND MIDDLE INCOME GROUP PEOPLE) DESSIE TOWN ETHIOPIA

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The provision for affordable housing is a challenging situation in Ethiopia due to the rapid growth and urbanization in the country. Hence, Integrated Housing Development Program (IHDP) is being undertaken on affordable housing facility to lower and middle income group people. This program distributes built houses to the owners based on installment payment with partial down payment and leaving certain finishing activities to the owner. This study is undertaken to measure the payment burden of the aforementioned payment system to own a condominium house for lower and middle income households in Dessie town. The data collected randomly from 550 respondents of different condominium houses, who doesn’t have yet but wants to acquire it. With regard to installment payment systems, in one-sample t-test, significant proportions of respondents are influenced by the existing condominium houses initial payment, periodic payment, and completion costs to afford them. However, site distance of condominium houses from market and work place does not have a significant impact on owning a condominium house. While we rate the impact level of installment payments, a paired sample test indicated that statistically significant. Majority of the respondents rank down payment impact to own a condominium house first than periodic payment. The condominium house down payment is the most constraint factor for the households to purchase a condominium house. This study finds on financial burden experience of households indicates that condominium houses are unaffordable to lower and middle income group people.

Keywords: Condominium House, Affordability, Payment System, Down Payment, Periodic Payment, Completion Cost, Strategies

INTRODUCTION

Everyone needs a place to live. It is a crucial problem for millions of poor people living in developing countries and Ethiopia is not an exception to it (Azeb Kelemwork, 2007). Access to adequate and affordable housing is a current and growing problem in all countries in Africa. Housing problems are largely related with affordability, expensive and incomes of the families are too low. Ethiopia is a pertinent example of the challenges facing by many African countries (United Nations Human Settlements Programme, 2011). Ethiopia’s urban centers are characterized by poorly developed economic
base. The ever-increasing urbanization with high unemployment, almost half of the households living in poverty and a third of the population under extreme poverty, housing access and affordability to the poorest households results poor economic development of the country. (Mekonen Wube Ermed, 2007). This research described that the development of affordable housing for the low-income groups in Dessie town is a challenging issues because of the scarcity of land and high cost of building materials. In general, the affordability of housing is an important subject for Ethiopia, and it has received considerable recent public attention. Shelter cost is the biggest expenditure most households make and its affordability can have an impact on the wellbeing of household members. For this reason, housing affordability is closely watched by a wide range of stakeholders—from housing advocates to policy analysts (Minister of Industry, 2008). Public concern over housing affordability is due to the fact that housing is the single largest expenditure in the budget of most families and individuals (Quigley and Raphael, 2004) described in Prince Christian R Cruz (2008). Housing affordability is also a critical input to a country Mortgage and Housing Corporation’s core housing need indicator which is used by governments to help design, deliver, fund and evaluate social housing programs (Canada Minister of Industry, 2008). The increasing cost of living and labor, rising prices of building materials, devaluation of local currency, escalation of land lease prices and others make house owning process in Ethiopia is much difficult. With the object of providing housing facility to all poor, lower and middle income group people the Government of Ethiopia designed a condominium housing project with the name of Ethiopian Integrated Housing Development Program (IHDP) to minimize the housing problems. This program has built 3306 condominium houses in two different phases since 2007 and distributed them to different sets of people at Dessie town. The selling prices of different types of houses are averagely 80,000 birr for studio, 1, 67, 000 birr for one bed room and 2, 05, 000 birr for double bed room house. With regard to the payment system the down payment for a studio, single bed room is 10% and for double bed room is 15% of the total cost of the house. The repayment system for single and double bed room should be accomplished with in 20 years, for studio the owner should pay the total payment within 25 years. Therefore, the periodic payment should be made at the end of each month. The expected amount of monthly periodic payment for studio, single bed room and double bed room is 539 birr, 1,329 birr and 1,675 birr, respectively.

**NEED FOR THE STUDY**

The current study is initiated mainly to measure the payment burden on publically built condominium houses by poor, lower and middle income group people at Dessie Town. In Ethiopian context several researches have been conducted by many people, viz., Azeb Keleme work (2007), Mekonen Wube Ermed (2007), Tameru Woundimagegnehu (2010) and UN Habitant (2011) particularly at Addis Ababa regarding condominium houses affordability. Those studies were lacks inclusiveness in measuring affordability and their recommendations to increase affordability of condominium houses. They didn’t measure the ability of the poor, lower and middle income group to afford condominium houses using the standard measure like cost-to-income ratio and concluded about affordability.
They conclude that, condominium houses are becoming unaffordable to the low income group by analysing scarcity of land and high cost of building materials. Due to these reasons this study sets an objective of measuring the payment burden to own of condominium houses for lower and middle income households.

**OBJECTIVES OF THE STUDY**

1. To measure the affordability of owning a condominium house by lower and middle income groups.
2. To measure the burden of initial payments, periodic payment and completion cost.
3. To describe the impact of condominium house site distance to own a house.

**SCOPE OF THE STUDY**

The data collected in the undertaken study is to evaluate the affordability of housing cost of construction material, labour, land, and measures the payment burden on publically built condominium houses by poor, lower and middle income group people at Dessie Town. This study is applicable mainly to Dessie town.

**METHODS AND METHODOLOGY**

The present study is conducted to measure the affordability of condominium houses by analyzing the payment system of poor, lower and middle income group in their endeavor of possessing own house. Descriptive statistics is used to measure and analyze the affordability. Data collected from 550 respondents by using simple random sampling technique including the people already purchased and others not yet purchased the houses. A structured questionnaire is used that contains different formats like multiple choices, yes or no, self-assessment items, measured on the 5-point Likert scale. Data collected is analyzed by using descriptive statistics and t-test. To support the primary date the researchers also used secondary data that is available in Ethiopian and African context.

**RESULTS AND ANALYSIS OF THE RESEARCH**

To forward the recommendations for increasing the affordability of condominium houses by the selected income groups from the infinite population. 550 samples are selected half from each group is randomly selected to response to the distributed questionnaires. However the complete responses are collected from 75.82%. The remaining questionnaires are not filled completely and not considered by the research.

**Family Size of the Respondent Households**

To frame most of the completion cost in the visualizing we present condominium house completion cost with types of condominium house in cross tabulation.

The Test of mean for significance of impact intensity for initial payment, periodic payment, completion cost, and site distance to own a condominium house.

All except the site distance influence on owning a condominium house, the influence of the initial payment, periodic payment, and completion cost they assumed have mean above 3 which means that on average majority of the respondents are influenced by initial payment, periodic payment and completion cost of a condominium house. The mean of site distance on the extent of
influencing households to own a condominium house is below the average which indicated that site distance don’t influence households to own a condominium house. Below we tested the significance of the above means for each variable.

The results of the above test are report below sequentially.

- A one-sample t-test was run to determine whether the samples score on the extent the existing initial payment influences the household in buying condominium house was different to the average of the scale which is defined as a average score 3. Mean of initial payment influence score (3.71 ± 0.1.41) was higher than the average score of the scale 3.0, a statistically significant difference of 0.71 (95% CI, 0.52 to 0.90), t(216) = 7.40, p = .000. From this we can conclude that significant proportions of respondents are influenced by the existing condominium house initial payment to afford them.

- Regarding with the extent that existing periodic payment influences the household in buying condominium house, the mean from 216 sample of respondents is 3.62 (with SD =1.35), which is statistically significantly different from the average scale value by 0.62, (95% CI, 0.43 to .80, t(211)=6.65, p = .000. We would conclude that the respondents’ level on the impact of periodic payment to own a condominium house is a significantly higher mean on the writing test than 3. This tells us that majority of the respondents are influenced by the periodic payment of a condominium house.

- The mean score on the extent completion cost influenced in buying condominium house for the household (3.53± 1.25) was higher than the average score of the scale 3, a statistically significant difference of 0.53 (95% CI, 0.36 to 0.70), t(209) = 6.13, p = .000. The result, so, indicated that majority of households are influenced by the completion cost to own a condominium house.

- The extent site distance influence households to own a condominium house is also tested in respect with the average values of the scale which is 3. Accordingly, the mean score of the respondents on the extents that site distance influences households to own a condominium house (2.97± 1.36) was not statistically different from the average score of the scale 3, (95% CI, -0.22 to 0.15), t(212) = -0.353, p = .724. Therefore, based on the above test result, we can say that site distance of condominium house from market and work place does not have a significant impact on owning a condominium house for small and middle income group.

In summary, from all the above payment patterns we can concluded that a significant majority of respondents households are impacted by the current down payment, periodic payment and completion costs to afford condominium house built by IHDP. Those payments restricted households from purchasing a condominium house. They are the major factor for the household to not buy a condominium house. Other literatures also support the idea that in countries where costs are high, most individuals postpone their decision to purchase properties (Cruz, 2008). Unsupportive finance terms (for instance, high down payment requirement, high interest rates, and short loan periods) directly limit housing affordability especially for lower- and middle income groups (UN-HABITANT, 2011). Therefore, we can also conclude that the current
The amount of condominium house down payment and periodic payment are high to lower and middle income group too afford condominium houses.

The respondents' ratings of the Impact of down payment, periodic payment, completion cost respondents assumed and site distance to own a condominium house

Respondents were asked to sort the down payment, periodic payment, completion costs, and site distance in the order of their level of impact for them to own a condominium house, in order to identify the most significant factor which hinder respondents household to purchase a condominium house. Accordingly, this section of the study's report discusses about the issue below.

**Down Payment Impact Prioritization**

Respondents were asked to order the impact intensity of down payment s as first, second and etc from among the periodic payment, completion cost and site distance impact on them to acquire a condominium house. The below table and chart depict the order opts of respondents to the down payment. As it is indicated in the table above, the majority (64.1%) of the respondents’ rate the impact of down payment to own a condominium house at first level. The other 14.7%, 11.5%, 9.6% of respondents rate it at second level, at third level and at fourth level respectively. Here we can understand that among those factors the impact of down payment to own a condominium house is superior for the respondent households. Down payment has most impact than periodic payment and other costs because this needs household some few years back saving than others.

**Periodic Payment Impact Prioritization**

Respondents were also expected to rate the impact of down payment in comparison with the periodic payment impact extent, completion cost impact extent and site distance impact extent based up on the impact they impose on them to possess a condominium house. Thus, the table under indicates the order given by the respondents to condominium house periodic payment. The table above indicated that majority of respondents (36%) rate the impact of periodic payment to own a condominium house on the second level in comparison with the impact of down payment, completion cost they assumed, and site distance. Likewise, the second majority of respondents (34.7%) also rate it at third level. The remaining respondents rate the impact of periodic payment to own a condominium house at first level (17.3) and at a third level. Therefore, based up on the above result, we can conclude that the impact of periodic payment to the lower and middle income group is put at second level and third level. Respondents experienced that periodic payment is not the first on its financial burden while it is compared with down payment to won a condominium house; possibly since most of the respondents live in a rent house, it is because the periodic payment financial burden may be relatively seen as a financial burden of house rent expense they are paying. Households pay periodically rent expense not significantly less than the required condominium house periodic payment. So, a certain amount of the required condominium house periodic payment, therefore, could be the rent expense they were paying. This scenario makes the households feel the burden of down payment more than periodic payment which they are partially paying for rent.

**Completion Cost Impact Prioritization**

Below we analyzed how respondents rate the
completion cost impact to own a condominium house in comparison with down payment as well as periodic payment required and site distance.

The above table and chart summarize that majority of the respondents which consists of 42.3% of the total respondent put the impact of completion cost at second level and followed by 39.6% of the respondents who rate the impact of condominium house completion as third level. The smaller percentages of the respondents' rate it at first (11.4%) and fourth (6.7%) level. The information in the above table and chart in general depicted that significant number of respondents which comprises of 81.5% of the respondents in cumulative prioritize at second and third level.

**Site Distance Impact Prioritization**

Do people become reluctant to purchase a condominium house in Dessie town due to site distance? Below we have discussed the impact of site distance to own a condominium house for households in comparison of the impact of down payment, periodic payment and completion cost households assumed. The table and the chart above make clear that most of the respondents (67.5%) rate the impact of the site distance to own a condominium house at forth rank. The remaining respondents order it at first (13.9%), second (6.6%) and third (11.9%) rank. The finding led us to conclude is that the distances of sites from market and work place can’t be considered as a hindrance factor for households to own a condominium house. We can also, here, conclude that site distance was not the factor for those majority of individual who were booked to purchase a condominium house but latter become reluctant to purchased while they were asked to take their condominium house.

In general, from these all we can conclude that from among the above factors the impact of down payment has given priority by majority of respondents. On the opposite the impact of site distance is not significant to majority of respondents household.

Test of mean difference on the prioritizations from impact rating of down payment, periodic payment, completion cost, and site distance.

Of the down payment, periodic payment, completion cost, and site distance which one impact households more to purchase a condominium house? The following tests confirm the most constraint factor for the household to own a condominium house.

- A paired samples test was conducted to determine whether the ratings of the respondents to the impact of down payment and periodic payment to purchase a condominium house are different. Accordingly, mean of down payment rating (1.72 ± 1.39) was lower than the mean of periodic payment rating (2.46±0.897), a statistically significant difference of -0.738(95% CI, -0.991 to -0.485), $t(145) = -5.766, p = .000$. From this we can conclude that statistically significant majority of the respondents rank down payment impact to own a condominium house first than periodic payment.

- Likewise, a paired samples test was conducted to differentiate the ratings of the respondents to the impact of periodic payment and completion cost respondents assume to purchase a condominium house are different. The result of the test depicts that there is no a statistical mean difference between the periodic payment (2.45±0.902) and completion
cost ratings (2.42±0.778), a statistically insignificant difference of 0.21 (95% CI, -0.207 to 0.248), \( t(145) = 0.178, p = .859 \). This implies almost equal proportion of the respondents’ rate both periodic payment and completion cost impact at second and/or third level.

- We have also checked the completion cost and site distance mean rating score difference. thus, The paired samples test result shows that mean of completion cost rating (2.42 ± 0.786) was lower than the mean of site distance rating (3.40±1.034), a statistically significant difference of -0.986 (95% CI, -1.214 to -0.759), \( t(145) = -8.577, p = .000 \). From this we can conclude that statistically significant majority of the respondents rank completion cost impact to own a condominium house prior than site distance payment.

- Overall we can conclude that the impact of down payment to own a condominium house is ranked first followed by completion cost and periodic payment. Completion cost is ranked at fourth. In fact, as to this data, periodic payment and completion cost have equal impact level to own a condominium house next to down payment.

**RECOMMENDATIONS**

The prices of all condominium houses are unaffordable to lower and middle income groups. To achieve the objectives of IHDP, some other housing designs that will have a cost that are affordable to poor, lower and middle income and their need to be realized.

If reducing the current cost of construction of condominium houses as well as any housing project has no alternatives, as a second option, making some adjustments in the payment system of a house is needed.

Small amount of periodic payment as well as down payment to be paid for longer period/years significantly increases the affordability of houses to lower and middle income group.

Down payment is the most important factor that impact individuals to purchase a condominium house than others like periodic payment, completion cost and site distance. Hence in future new housing program is designed it should propose a means to avoid or minimize the down payments requirement to make houses affordable to many households.

Housing projects that will be conducted to make lower and middle income group house owner should do the finishing activities of the house to the most possible level because there are significant majority of households those are impacted by costs to be incurred for such activities to purchase a condominium house.

**CONCLUSION**

The financial burden of condominium houses in the households own experiences also confirmed that condominium houses are unaffordable to lower and middle income group. Depending on the living philosophy of the household holding the burden of housing payment may vary. Beyond the measurement results of affordability, respondents themselves experienced the burden of condominium house payments to them to own a condominium houses. Statistically a significant majority of respondents are highly impacted by condominium house initial payment, periodic payment and completion cost they assumed to purchase a condominium house. That burden makes houses unaffordable for middle and low income families. Site distance of condominium
house don’t hinder household to purchase a condominium house. In fact, though one of the IHDP main objectives was to carry out slum upgrading, so far the implementation of the programme in Dessie has been carried out in open spaces. The sites of condominium houses in Dessie town looks they are far from market places as well as work place of most of the residence of the town. But, the interest of the residence/respondents of this study to own a condominium house wasn’t influenced by site distance of the condominium houses because the influence of site distance to own a condominium house as a burden for the household like initial payment and periodic payment was not statistically significant to say it does have an impact to own a condominium house. Site distance was not the factor for those majority of individual who were booked to purchase a condominium house but latter become reluctant to purchased while they were asked to take their condominium house. From Among condominium house required down payment, periodic payment, completion cost and distances of sites, Condominium house down payment is the most constraining factor for household to purchase condominium house. Respondents themselves rate them based up on the burden they have to them to own a condominium house from high burden to lower burden. Accordingly though we don’t have a statistically significant difference between the burden rate of periodic payment and completion costs, just to know which one is the second and which one is the third, initial payment and site distance are leveled as first and fourth respectively. Among the factors which give a burden for the household to purchase a condominium, initial payment required took the highest followed by periodic payment and completion cost. The burden of periodic payment and completion cost to own a condominium house is, in fact, statistically equal.

LIMITATIONS OF THE STUDY
The study is limited to dessie town. This may not represent the true picture of the total population. The findings are derived by analyzing the data collected from the respondents and every care has been taken to avoid their biased opinions. Still there is an ample scope for biased opinions that will affect the results of the study. The data collected for the study is limited to the selected condominium house owners of dessie town.

SCOPE FOR FUTURE RESEARCH
There is a lot of scope for further research on this topic. The future scope of the research on measuring the payment burden on publically built condominium houses at other cities and towns of Ethiopia. The study can also apply to other parts of the African continent as the earlier studies proved that there is a problem of owning a house by poor, lower and middle income group people. The future study can also be extended to the accomplishment of objectives by Ethiopian Integrated Housing Development Program (IHDP).

DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS
From the above Table 1 it can be revealed that most of the respondents are married and have children consist of 64% and 15.3% are married but have no children. In total, 79.5 % of the respondents are married, 17.5% of the
Table 1: Family Status of the Respondents In Respect With Respondents’ Category

<table>
<thead>
<tr>
<th>Marital Status/ Family Status</th>
<th>Category of respondents (CR)</th>
<th>Have a condominium house</th>
<th>Don't have a condominium house</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>% within CR</td>
<td>% within FS</td>
<td>Count</td>
</tr>
<tr>
<td>Married and have children</td>
<td>144</td>
<td>73.1%</td>
<td>54.8%</td>
<td>119</td>
</tr>
<tr>
<td>Married but not have children</td>
<td>33</td>
<td>16.8%</td>
<td>52.4%</td>
<td>30</td>
</tr>
<tr>
<td>Unmarried and no other live together</td>
<td>15</td>
<td>7.6%</td>
<td>20.8%</td>
<td>57</td>
</tr>
<tr>
<td>Unmarried &amp; have others live together</td>
<td>5</td>
<td>2.5%</td>
<td>38.5%</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>197</td>
<td>100.0%</td>
<td>47.9%</td>
<td>214</td>
</tr>
</tbody>
</table>

Table 2: The Descriptive Statistics Of The Family Size Of The Respondents’ Household

<table>
<thead>
<tr>
<th>Family size of the household</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>family size of the household</td>
<td>396</td>
<td>1.00</td>
<td>9.00</td>
<td>3.4621</td>
<td>1.69320</td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td>396</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Household Source of Finance in Respect With Category of Respondents

<table>
<thead>
<tr>
<th>Households source of finance (SF)</th>
<th>Category of respondents(CR)</th>
<th>Have a condominium house</th>
<th>Don't have a condominium house</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>% within CR</td>
<td>% within SF</td>
<td>Count</td>
</tr>
<tr>
<td>Own business</td>
<td>62</td>
<td>31.8%</td>
<td>55.4%</td>
<td>50</td>
</tr>
<tr>
<td>Salary</td>
<td>109</td>
<td>55.9%</td>
<td>44.9%</td>
<td>134</td>
</tr>
<tr>
<td>Both from own business and salary</td>
<td>21</td>
<td>10.8%</td>
<td>55.3%</td>
<td>17</td>
</tr>
<tr>
<td>Other source</td>
<td>3</td>
<td>1.5%</td>
<td>25.0%</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>195</td>
<td>100.0%</td>
<td>48.1%</td>
<td>210</td>
</tr>
</tbody>
</table>

respondents are unmarried and no other is living with them and the remaining 3.2% small proportion of respondents are unmarried and have others live with them. The proportions of married and unmarried respondent are the same within both categories of respondents as it happens in general.

The family size of the household is one determinant of household ability to afford houses. Table 2 depicted the family size of the
respondents. The average family size of the respondents is 3.5 with a minimum of single and maximum of 9 members in the family.

From the above data four source of monthly income a household could finance itself, majority of the households’ source of income is from salary. The proportion is that 27.7% from own business, 60% from salary, 9.4% from both own business and salary, and the remaining 3% are from other sources. When we see this proportion in each category of the respondents’ salary takes the majority. In the ‘have condominium house’ category of respondents 55.9% obtains their monthly finance from salary whereas in the ‘don’t have a condominium house’ category of respondents 63.5 % earns their monthly income from salary. As it is displayed in the chart above, the other second significant source of income for the respondents’ household for each category of respondents is from own business. 31.8% of the respondents in the ‘have a condominium house’ category of respondents earn their monthly income only from their own business and 23.8% of ‘don’t have a condominium house’ category of the respondents also earns their monthly income only from their own business.

The average completion cost required for the studio types of condominium house is 11,653.85 birr with the maximum birr 25,000 and minimum 7,000 birr incurred. Whereas, completion cost incurred for single bed room on average is 25,055.59 birr. The maximum and the minimum completion cost incurred for such types of condominium house is 60,000 and 5,000 birr, respectively. On average birr 33,009 is incurred for completion cost of double bed room condominium house. Respondents incurred minimum of 7,000 birr and maximum of 80,000 birr for double bed room condominium house completion cost. Generally from the above table we can conclude that the average completion cost of condominium houses vary from over types of condominium houses. It increases when we moves from studio to single bed room and double bed room. Moreover, from all the above mean costs we can conclude that there are many finishing activities to be done after condominium houses are transferred to owner which would have to be in fact performed partially by contractor to make house affordable to lower and middle income group.

Descriptive on the Impact intensity of down payment, periodic payment, completion costs and site distance to own a condominium house.

A condominium houses are transferred to owner with a down payment and periodic payment requirement, and with some finishing activities of the houses. Below we have discussed how the current amount of such payments and finishing activities remained hindered households to acquire a condominium house.

| Table 4: Descriptive Statistics about Completion Cost of Each Type of a House |
|----------------|----------|-----------|----------|-------|----------|
|                 | N        | Minimum   | Maximum  | Mean  | Std. Dev  |
| Completion cost for studio | 13       | 7,000.00  | 25,000.00 | 11,653.8462 | 5,217.9671 |
| Completion cost for single bed room | 97       | 5,000.00  | 60,000.00 | 25,055.5876 | 12,661.35906 |
| Completion cost for double bed room | 1        | 7,000.00  | 80,000.00 | 33,009.8592 | 17,135.5497 |
The impact intensity of down payment on affording condominium houses for respondents households.

Condominium houses are transferred to the owner after the required down payment is paid. Currently though it vary depending up on the types of housing units 10%-25% of the cost of the condominium house is required to be paid as a down payment. The burdens of these down payments to own a condominium house for the respondents of this study are discussed below.

According to the above frequency table about the extent that the existing initial payment of condominium house influences the household in buying condominium house, majority of the respondents (42.9%) reported that they are strongly influenced by initial payment to purchase a condominium house which is followed by respondents (20.3%) who said not strongly but they are just influenced by initial payment to own condominium house. The cumulative proportion of respondents who reported strongly influenced and influenced by is 63.1% which is more than half of the respondents. Those who said they are indifferent, not influenced and not strongly influenced take the proportion of 12.9%, 12.9%, and 11.1% respectively. The chart above helps us to visualize these frequencies. Therefore, we can conclude that the current amount of condominium house down payment is hindering lower and middle income groups to purchase a condominium houses because housing affordability continues to be a problem for a number of household due to high initial payment (Beamish, Goss and Emmel, 2001, UNHABITANT, 2011).

The impact intensity of periodic payment on affording condominium houses for respondents households.

Around 75-90% of condominium house cost is paid for a long period. Owners of a condominium house are required to pay a certain amount of this cost in each month over long years. We called that required monthly payment as condominium house periodic payment. Hence, below we have discussed the extent that current amount of condominium house periodic payment influences households to purchase a condominium house.

The impact intensity of completion cost on affording condominium houses to households

Condominium houses are transferred to households with some finishing activities which require the owner significant amount of birr to complete. The cost households will incur for that finishing work is called completion cost. Average 27,000 birr is required for finishing. Hence, below we have discussed the extent this completion cost influences households to own a condominium house. Respondents are asked about the extent completion cost that they assume influences them in buying condominium house. Accordingly, 24.3%
of the respondents were strongly influenced by the completion cost, 36.7% were influenced, 15.2% were indifferent, 15.2% were not influenced and 8.6% were not strongly influenced. The table and the graph above, moreover, informs that the majority of the respondents which consists of more than 61% of the total respondents are influenced by the completion cost though it is in different extent of influence.

The impact intensity of site distance on owning condominium houses to households.

The site of most of Dessie town condominium houses are a bit far from market place and from most of individuals’ work place. They are in the outskirts of the city. The extent this site distance influences households to purchase a condominium house are discussed below. Respondents were also asked about the extent site distance influences them in buying condominium house. Accordingly as it is depicted in the table above, 19.2% of the respondents were strongly influenced by the site distance, 17.8% were influenced, 17.8% were indifferent, 30.5% were not influenced and 14.6% were not strongly influenced. The cumulative of those respondents

Table 6: Test Statistics Of Impact Intensity Of Initial Payment, Periodic Payment, Completion Cost, And Site Distance To Own A Condominium House One-sample Statistics

<table>
<thead>
<tr>
<th>Influence Factors</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent of initial payment influences</td>
<td>217</td>
<td>3.71</td>
<td>1.42</td>
<td>.096</td>
</tr>
<tr>
<td>Extent of periodic payment influences</td>
<td>212</td>
<td>3.62</td>
<td>1.35</td>
<td>.093</td>
</tr>
<tr>
<td>Extent of completion payment influenced</td>
<td>210</td>
<td>3.53</td>
<td>1.25</td>
<td>.086</td>
</tr>
<tr>
<td>Extent of site distance from market and work place</td>
<td>213</td>
<td>2.97</td>
<td>1.35</td>
<td>.093</td>
</tr>
</tbody>
</table>

Table 7: One-Sample Test

<table>
<thead>
<tr>
<th>Description of extents</th>
<th>T</th>
<th>d'</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent of existing initial payment influences</td>
<td>7.403</td>
<td>216</td>
<td>.000</td>
<td>.710</td>
<td>.52 - .90</td>
</tr>
<tr>
<td>Extent that existing periodic payment influences</td>
<td>6.652</td>
<td>211</td>
<td>.000</td>
<td>.618</td>
<td>.43 - .80</td>
</tr>
<tr>
<td>Extent completion payment influences</td>
<td>6.130</td>
<td>209</td>
<td>.000</td>
<td>.529</td>
<td>.36 - .70</td>
</tr>
<tr>
<td>Extent site distance from market and work place influences</td>
<td>-3.553</td>
<td>212</td>
<td>.724</td>
<td>-.033</td>
<td>-.22 - .15</td>
</tr>
</tbody>
</table>

Table 8: The Respondents’ Ratings of Instalment Payments

<table>
<thead>
<tr>
<th>Ratings of instalment payments</th>
<th>1st level</th>
<th>2nd level</th>
<th>3rd level</th>
<th>4th level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Down payment impact prioritization</td>
<td>64%</td>
<td>14%</td>
<td>12%</td>
<td>96%</td>
</tr>
<tr>
<td>Periodic payment impact prioritization</td>
<td>173%</td>
<td>38%</td>
<td>347%</td>
<td>12%</td>
</tr>
<tr>
<td>Completion cost impact prioritization</td>
<td>114%</td>
<td>42.3%</td>
<td>39.6%</td>
<td>67%</td>
</tr>
<tr>
<td>Site distance impact prioritization</td>
<td>139%</td>
<td>66%</td>
<td>129%</td>
<td>675%</td>
</tr>
</tbody>
</table>
Table 9: Paired Samples Statistics Of Mean Difference On The Prioritizations From Impact Intensity Rating Of Down Payment, Periodic Payment, Completion Cost, And Site Distance

<table>
<thead>
<tr>
<th>Pair</th>
<th>Impact level</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td>Down payment impact level</td>
<td>1.72</td>
<td>1.541</td>
<td>.289</td>
<td>-.991 to -.485</td>
<td>-5.766</td>
<td>144</td>
<td>.000</td>
</tr>
<tr>
<td>Pair 1</td>
<td>periodic payment impact level</td>
<td>2.46</td>
<td>1.132</td>
<td>.115</td>
<td>-.207 to .248</td>
<td>-1.783</td>
<td>145</td>
<td>.082</td>
</tr>
<tr>
<td>Pair 2</td>
<td>periodic payment impact level</td>
<td>2.42</td>
<td>1.541</td>
<td>.289</td>
<td>-.991 to -.485</td>
<td>-5.766</td>
<td>144</td>
<td>.000</td>
</tr>
<tr>
<td>Pair 2</td>
<td>completion cost impact level</td>
<td>2.45</td>
<td>1.214</td>
<td>.115</td>
<td>-1.214 to -.759</td>
<td>-2.857</td>
<td>145</td>
<td>.004</td>
</tr>
<tr>
<td>Pair 3</td>
<td>completion cost impact level</td>
<td>2.42</td>
<td>1.390</td>
<td>.115</td>
<td>-1.214 to -.759</td>
<td>-2.857</td>
<td>145</td>
<td>.004</td>
</tr>
<tr>
<td>Pair 3</td>
<td>site distance impact level</td>
<td>3.40</td>
<td>1.390</td>
<td>.115</td>
<td>-1.214 to -.759</td>
<td>-2.857</td>
<td>145</td>
<td>.004</td>
</tr>
</tbody>
</table>

Paired Samples Test

who say not influenced and not strongly influenced consists of the majority which is about 45.1%. Therefore, here, we can conclude that the majority of the respondents are not influenced by site distance. So this site distance may not be one reason for individual in Dessie town to be reluctant to purchase a condominium house once they booked to purchased.

Note: Not strongly influenced = 1, Not influenced = 2, Indifferent = 3, Influenced = 4, Strongly Influenced = 5. The average of this scale is 1+2+3+4+5=15/5 = 3.

REFERENCES


17. Phillip O’Neill (2008), “Housing Affordability Literature Review and Affordable Housing Program Audit”, Urban Research Centre University of Western Sydney.


22. Tameru Woundimagegnehu. (2010), Affordable Houses for Middle and Low Income Group in Ethiopia Self help housing with innovative construction technology.


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24