

CHAPTER 6: COMPARATIVE ANALYSIS

EXTENSION 10

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5. FACTORS AFFECTING CONSOLIDATION

5.1. INTRODUCTION

This section will identify the factors affecting consolidation based on the issues that have been exposed by the trends. However, the factors to be identified will be analysed in terms of consolidators and non-consolidators. It is safe to say at this point that residents within typology 1 are non-consolidators (little or no permanent structures were produced) and residents within typologies 2 and 3 are consolidators.

The structure will be as follows:

Firstly, the profiles of non-consolidators will be developed and factors affecting consolidation will be identified.

Secondly, the same process will be conducted for the consolidators, i.e. profile development and identification of factors affecting consolidation.

Thirdly, an overall profile will be developed of issues that have not been covered in the first two sections, where other factors will be identified. The issues will specifically relate to the hypothesis developed.

Fourthly, after each of the above sections, the hypotheses developed at the beginning of the chapter will be tested.

It is at this point, that a recap of the hypotheses would be needed:

1. Larger families imply less consolidation
2. Less income implies less consolidation
3. More time implies greater consolidation
4. More expenses imply less consolidation
5. More savings implies more consolidation
6. Rental activity is prominent in the initial stages of consolidation
7. Lack of use of building skills implies less consolidation
8. High cost of building materials implies less consolidation
9. High cost of contractors (builders) implies less consolidation
10. Uses within the structures increase with formality
11. Complexity in the use of the erven increases with formality
12. The area occupied by the houses / structures increases with formality

Considering the structure of identifying the factors that affect consolidation and the manner in which the hypotheses are being answered, only the first six will apply to non-consolidators and consolidators. The last five will be overall hypotheses involving both consolidators and non-consolidators together, not separately.

NOTE: none of these factors can be looked at individually and be stated to be 'THE' factor that has influenced consolidation. It is the interaction between the factors that either creates a suitable environment for consolidation or not. Examples will be given where possible to illustrate this.

5.2. Non-consolidators

Even within the non-consolidators, there are successful households and less successful households, i.e. some are able to build more or larger additions than other households. Characteristic of the unsuccessful households are **financial constraints**. The percentage of formal employment appears to be low, implying that a stable, reliable and regular supply of income does not exist to such a great degree. As such, residents tend to allow the occupancy of tenants on their property for an extra source of income. On average, each family is **limited to an average at least two sources of income**, which is not always regular and stable, i.e. the type of employment within every household does not always consist of formal employment. Rental activity, grants, and entrepreneurial activity make up the component of income sources. The **type of income sources** therefore inhibits consolidation. **Expenses** made by households also tend to be large, rendering the ability of these households to save, difficult.

In comparison, households able to produce more structures benefited from a **greater supply of formal sources of income, a greater number of income sources, smaller family sizes, more time, and fewer expenses**.

However, not all the positive influencers of consolidation exist in isolation of the negative factors. *Example, although one household had a small family size and arrived earlier, consolidation was restricted because of the limited number of income sources, the type of income sources (entrepreneurial/informal), and many expenses (refer to chapter 5, section A, typology 1, 2.1.6. conclusion).*

The level of consolidation attained is therefore minimal. Families have managed to produce at least two structures characterised as temporary (built of temporary materials). The structures produced, however, tend to be larger than the temporary structures produced by the consolidators (refer to 1.8.a.). Considering affordability levels were low and family sizes were large, these households could not afford to construct permanent structures, but the **immediate need** of housing the family had to be met. This is characteristic of the initial stages of consolidation as mentioned by Hart & Hardie (refer to chapter 3, 6.3.1., A.). A compromise between the quality of the structure and space was made to accommodate the household members. Considering the haste, minimal time was spent on saving and constructing additions (2years). Coverage of the housing units is approximately 17% (refer to 1.8.b.), which leaves the rest of the erven open for other activities.

5.2. Non-consolidators

Non-consolidators can also be broken down into those that are successful and those that are less successful. The households that were not so successful are characterised by **large family sizes (refer to 1.1.)** and **great expenditure levels (refer to 1.5.)**. As a result, **abilities to save are minimal (refer to chapter 5, section B, typologies 1 and 2, 3.1.6. conclusion, 3.2.6. conclusion)**. The number of income sources tends to average three (refer to 1.2.) with formal employment accounting for 66% (refer to 1.4.). A large component of the income sources is therefore regular.

Households that were more successful had greater income sources, less expenses, smaller family sizes and greater time to consolidate, *example the households most successful in the number of units produced had the benefit of numerous income sources and the ability to save. Inhibiting factors included large family sizes and numerous expenses (refer to chapter 5, section B, typology 2, 3.2.6. conclusion).*

On average 3 additions have been produced, majority of which were temporary structures averaging 14m² (refer to 1.8.). This is insufficient considering the number of family members to be accommodated. On average, each person has 7m² to himself or herself. Approximately 23% of the erven is covered by the structures (refer to 1.8.b.). This leaves a large amount of space open for the construction of the future house or other activities.

On the erven, all activities listed tend to occur; therefore, the complexity in the use of the erven is evident, ranging from gardening to storage (refer to 1.14.). However, uses within the structures tend to reflect basic uses, i.e. bedrooms, kitchens and out-door toilets. Privacy needs tend to be minimal.

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The uses on the erven appear minimal in comparison to the consolidators (refer to 1.14.), i.e. gardens, agriculture, rental, parking areas, some commercial activity, and a few clotheslines. Uses within the structures are also minimal compared to consolidators (refer to 1.13.).

Therefore, in terms of the hypotheses:

- Larger families imply less consolidation**
This hypothesis was proved incorrect, i.e. the large family managed to be the most successful, but no permanent structure were produced. *Example, although one household had the largest family size, arrived later than all other households, and had many expenses, the type and number of income sources assisted this households to, in comparison to the others, be most successful (refer to chapter 5, section A, typology 1, 2.1.6. conclusion).*
- Less income implies less consolidation**
In this case, this hypothesis was proven correct. Families were restricted by insufficient regular income sources, many expenses, and a lack of ability to save.
- More time implies greater consolidation**
Since the time of arrival of the residents in all typologies was around the same time, time as a factor has been excluded.
- More expenses imply less consolidation**
Households with many expenses had not constructed any permanent additions. This hypothesis is therefore, correct.
- More savings implies more consolidation**
The total opposite of this hypothesis was proven correct, i.e. minimal or no savings was made. Therefore, consolidation has not been achieved.
- Rental activity is prominent in the initial stages of consolidation**
Considering that the non-consolidators are representative of the initial stages of consolidation and rental activity occurs only here, this hypothesis is correct. As mentioned by Hart & Hardie (refer to Chapter 3, 6.3.1., A.), rental markets are used to stimulate extensions in self-help contexts.

5.3. Consolidators

Within consolidators, there were some that were more successful than others. Although the expenditure levels and family sizes on average amount to the same as non-consolidators, consolidators are able to consolidate for various reasons, the main one being financial 'security' compared to non-consolidators. Consolidators tend to have the same amount of income sources as non-consolidators but have a greater percentage of residents that are employed formally (refer to 1.2. and 1.4.), rendering these households supported by a regular source of income. This enables the residents to save (refer to 1.6.) and consequentially make additions, permanent or temporary. The lack of rental activity (refer to 1.3.) reveals the positive financial status quo of the households. Households that were not as successful were inhibited by financial constraints, i.e. many expenses, number and type of income sources. Arriving later than other households also prevented consolidation from reaching better standards. These households are also characteristic of larger families.

An example of

The number of additions built average 2,5 per households of which 54% are temporary structures and 46% are permanent structures (refer to 1.7, and 1.8.). The temporary structures built tend to be a bit smaller than the temporary structures produced by non-consolidators. The permanent structures on the other hand, average 47m². This implies that the space occupied by these structures is much larger than that of non-consolidators, i.e. the coverage of structures of consolidators average 36%, twice the coverage of non-consolidators.

Within the structures built, uses tend to be greater, i.e. there are more uses compared to the uses within the structures of the non-consolidators). Luxury uses are included, such as indoor toilets and bathrooms, lounges and dining rooms. Uses of the erven also appear more diverse. There are additional uses to the situations of the non-consolidators, i.e. storage, tents, and the provision of services.

Interpretation of the hypotheses:

- Larger families imply less consolidation**
In this case, this hypothesis is correct. The opposite was proven, i.e. smaller families, greater consolidation.
- Less income implies less consolidation**
The number of income sources was less as in the case of non-consolidators, but the regular income from formal employment would mean a greater income than non-consolidators. This hypothesis is still true because the total opposite applies, i.e. greater income, greater consolidation.

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Therefore, in terms of the hypotheses:

- Larger families imply less consolidation**
In this case, this hypothesis is true. Less consolidation has taken place with families averaging five.
- Less income implies less consolidation**
Although the households had more regular income sources and three income sources that included rental activity, the residents were not able to consolidate. The hypothesis is therefore incorrect.
- More time implies greater consolidation**
As mentioned in extension 10, this aspect has been eliminated.
- More expenses imply less consolidation**
This hypothesis is correct. Households had many expenses and consolidation was not taking place.
- More savings implies more consolidation**
Households were able to save but not to a great extent. This hypothesis is therefore correct.
- Rental activity is prominent in the initial stages of consolidation**
Rental activity takes place throughout non-consolidators and consolidators but appears more with non-consolidators. The hypothesis is correct.

5.3. Consolidators

Consolidators tend to show a slightly different picture. Income sources, the amount of expenses, and formal employment are similar to the financial situation of non-consolidators (refer to 1.4. and 1.5.). The only differences are that tenant activity is reduced considerably, family sizes are larger, averaging seven and the ability to save is much larger compared to non-consolidators.

Households that were more successful benefited from having limited expenses, a greater number of income sources, more formal employment and more time, *example, a household had the advantage of three income sources and a smaller family size, but had arrived a year later. Consolidation was still successful (refer to chapter 5, section B, typology 4, 3.4.6. conclusion).*

Households that were less successful displayed larger family sizes, many expenses and were disadvantaged in terms of time, i.e. arrived later than the other households. *An example of such a case is where a household had the ability to save, but only had two sources of income (one formal employment source) and was limited by large family size and many expenses (refer to chapter 5, section B, typology 3, 3.3.6. conclusion).*

An average of three additions has been built per households, 52% temporary structures and 48% permanent. The size of the structures average 13m² for temporary structures and 45m² for permanent structures and cover approximately 37% of the erven combined. This entitles each household member to 12m². This is sufficient for the large family sizes.

The use of space within the structures includes more uses than non-consolidators structures (refer to 1.13.). The use of space on the erven tends to similar to non-consolidators but if viewed in typologies, the picture would be different, i.e. a distinct decrease in the complexity of the use of space would be observed.

Interpretation of the hypotheses:

- Larger families imply less consolidation**
This hypothesis is incorrect. The larger families of the consolidators did not prevent consolidation to occur.
- Less income implies less consolidation**
Households were supported with more than two sources of income, of which 60% was from formal employment and consolidation has taken place. The hypothesis is correct, i.e. the opposite has been proven.

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3. **More time implies greater consolidation**
As mentioned previously, time has been excluded as a factor.
4. **More expenses imply less consolidation**
The hypothesis is incorrect. More expenses, in this case resulted in greater consolidation. Other factors have to be taken into consideration.
5. **More savings implies more consolidation**
Households were able to save much more than non-consolidators, so this hypothesis is correct.
6. **Rental activity is prominent in the initial stages of consolidation**
Rental activity only transpired with non-consolidators. No rental activity occurred here; therefore, the hypothesis is correct.

5.4. Overall picture (refer to section 3)

In relation to the **cost of building materials**, more than half (53%) of the residents agreed that it was expensive. Approximately one third of additions produced were permanent structures. The price of permanent structures could have affected the results.

Builders used tend to be contractors 50% of the time, whereas 34% of the time owners use their skills. Three observations were made from this in terms of the typologies, i.e. residents of typology 1 employed contractors majority of the time, residents of typology 2 built 95% of the structures, and typology 3 observed the construction of temporary structures by residents and permanent structures by contractors. **The cost of the contractors** has therefore affected the ability of residents of typology 1 to consolidate further, whilst the use of **building skills** in typology 2 have assisted consolidation. Within a study conducted by Napier, 1983 (refer to **chapter 3, section 7.2.2.**) a few of the factors affecting consolidation were:

- The varying levels of building skills
- The costs of formal and informal building by builders

By way of this study, these factors have been seconded.

It was also stated by Gilbert & Gugler that the cost of materials had hampered consolidation activities in other areas (refer to **Chapter 3, section 6.3.2., B.**). Findings of this study correlates with other findings.

Overall hypotheses:

7. **Lack of use of building skills implies less consolidation**
In this case, the lack of use of building skills of residents in typology 1 has proved this. The opposite was also proven by residents of typology 2 (refer to 2.3. above).
8. **High cost of building materials implies less consolidation**
Although residents have complained about the cost of building materials, consolidation has taken place but only where income sources was greater. Others, with less income were not so successful. Maybe, consolidation would have been faster, had the price of materials been cheaper. This hypothesis is correct.
9. **High cost of contractors (builders) implies less consolidation**
Non-consolidators seemed to have used contractors the most and have produced little or no permanent structures. The cost of the use of builders cannot be established due to the lack of information. This hypothesis cannot be proven.
10. **Uses within the structures increase with formality (refer to 1.13.)**
This hypothesis is correct. The stages reflected within the movement from non-consolidators to consolidators depict exactly what is hypothesised.
11. **Complexity in the use of the erven increases with formality (refer to 1.15.)**
The complexity in the use of space does increase with formality.
12. **The area occupied by the houses / structures increases with formality (refer to 1.14.)**
Quite visible from the coverage of the structures, consolidators have produced larger additions and cover more space than the structures built by non-consolidators.

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3. **More time implies greater consolidation**
This factor has not been counted.
4. **More expenses imply less consolidation**
This hypothesis is incorrect. Despite many expenses, some households were able to consolidate.
5. **More savings implies more consolidation**
Families were able to save to a greater degree than non-consolidators, which proves the hypothesis is correct.
6. **Rental activity is prominent in the initial stages of consolidation**
Rental activity is limited or nonexistent within the consolidators. This hypothesis is correct.

5.4. Overall picture (refer to section 3)

Thirty, three percent of residents felt that the **cost of building materials** is high, whilst fifty percent agreed that the materials were reasonable. It was found that residents within this area tend to find bargains and sales or make bricks instead of buying them. Majority of the structures within this area are also temporary structures, which would imply that the cost of temporary materials is reasonable.

A third of the time, building skills was used by the residents. Non-consolidators tend to use private contractors to a greater extent than consolidators. Whilst contractors were used to construct temporary structures where non-consolidators are concerned, contractors were used to construct only permanent structures when looking at consolidators. The greater use of contractors by non-consolidators could also be a contributor to less consolidation. This also implies that the **building skills** are not used by non-consolidators.

Overall hypotheses:

7. **Lack of use of building skills implies less consolidation**
The prevalent use of contractors to construct temporary structures indicates that this hypothesis is true in relation to non-consolidators.
8. **High cost of building materials implies less consolidation**
In this case, the two do not correlate. Building materials were considered reasonable, but less consolidation has taken place. The hypothesis is incorrect.
9. **High cost of contractors (builders) implies less consolidation**
Information related to costs was restricted due to the reluctance of residents. This hypothesis cannot be proven.
10. **Uses within the structures increase with formality (refer to 1.13.)**
This is true, i.e. uses within structures increase with formality.
11. **Complexity in the use of the erven increases with formality (refer to 1.15.)**
The total opposite is true if looked at in the context of typologies. However, within consolidators, the use of space equals the same degree of complexity as non-consolidators.
12. **The area occupied by the houses / structures increases with formality (refer to 1.8.b.)**
Coverage of structures increases from non-consolidators to consolidators. This hypothesis is correct.

It is important to remember that throughout the exercise of identifying factors affecting consolidation, one single factor cannot be isolated without considering the impact of other factors. The factors affecting consolidation have to be seen within its context to be understood properly.