Integrated Model of Affordable Housing Delivery for the City of Windhoek

1 author:

Isaac Randa
The Namibia University of Science and Technology
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Isaac Okoth Randa, Namibia University of Science and Technology, Windhoek, Namibia

ABSTRACT

Limited access to affordable and decent housing for the low-medium income households of Namibia, especially in Windhoek, is a major concern. This is evident as nearly 70 percent of the population are unable to access affordable housing. This situation is exacerbated by lack of an integrated framework for affordable housing delivery strategy. Adopting an interpretivist perspective, in depth literature review of published records, and using hybrid value chain model; this paper aims to identify an effective and efficient strategy for the delivery of affordable housing in Windhoek through the application of the stakeholder approach. Also, the paper intends to determine the appropriate division of roles between public, private and community institutions, and to suggest possible policy interventions necessary for a viable affordable housing delivery strategy. Though several non-integrated initiatives are operational in Windhoek, the joint Public-Private-Social-Sector Partnership model represents a new business model in the affordable housing sector.

KEYWORDS

Affordable Housing, Hybrid Value Chain, Innovation, Integrated Housing Model, Management, Namibia

INTRODUCTION

In most cases, housing the poorest citizens in a society is the responsibility of the government through social or public housing programmes; but housing the low-middle income households requires market-based mechanisms. According to Zaefarian et al. (2015), market-based approaches usually develop business solutions in the form of new business models and products that are sold at prices affordable to the target consumers. The basis for market-based interventions to solve social problems finds support in the neoliberal economic governance paradigms revolving around private entrepreneurship, where the state contribution to economic development is primarily for building public confidence and the best entrepreneurial opportunities. For example, when public confidence is diminishing, the government's role is articulated to provide economic stability through proper governance (Campbell, 2009). By providing a stable macroeconomic environment for economic growth, price stability, enforcing and defending property rights among others, the government assures private citizens that their counterparts in the marketplace are accountable. Hence market participants are encouraged to invest their resources in areas where they are most productive. This argument supports the Ministry of Regional and Local Government, Housing and Rural Development's (MRLGHRD) (2009) stance in Namibia - that a properly functioning market economy, underpinned by a dense network of civic

associations and overseen by a strong and accountable government, is the best framework for economic growth, prosperity and social development. The Namibian government is also a signatory to the Habitat II Agenda of 1996 which provides for an integrated framework to implement the Global Shelter Strategy. This strategy aims at influencing national housing policies to support the goal of providing adequate shelter for all (United Nations Centre for Human Settlements (UNCHS), 1997b). However, full reliance on market provision of affordable housing is at variance with the provisions of Habitat II Agenda of 1996, and thus, the need to redefine affordable housing. The Government of Namibia recognises and acknowledges the centrality of affordable housing in achieving national development priorities and millennium development goals, and subsequently, the socio-economic stability of the country. However, limited access to housing in Namibia, more so in Windhoek, is of great concern considering that 70 percent of the population cannot access decent housing mainly due to affordability related problems (Fleermuys, Fillipus, & Mwilima, 2011). The Namibian housing market features inflated property prices and a consistently limited capacity to meet the demand for land and housing development. The coexistence of low incomes and high housing related services' costs excludes many residents in Windhoek from acquiring land or a house.

Although Namibia is classified as a middle-income country, the Gini coefficient of 74.3 suggests the existence of a dual economy. The ratio indicates a coexistence of two economies in Namibia – one modern with a skilled workforce of around 200 000, and the other based on subsistence farming, employing the majority of the population (Centre for Affordable Housing Finance in Africa, 2014). Furthermore, according to Kalili (2014), a small housing unit in Windhoek costs N $500 000 ($45,482 US), while a medium-sized property costs N $1,229,000 ($111,798 US). Considering affordability at the prevailing interest rate, per month, households need to earn N $13,500 ($1,228 US) to afford a small house and N $33,200 ($3,020 US) for a medium house. The average price of a house financed by First National Bank (FNB) costs NS$720 000 ($65,498 US). Since 93 percent of the population earns less than N $7,000 ($637 US) a month, mortgage housing facility is not an option to the vast majority of Namibians.

MRLGHRD (2009) through the Namibia Housing policy proposes four main housing strategies. These include credit linked-housing, rental accommodation with an option to buy, social/subsidy housing, and community housing initiatives and programmes. The first and second strategies are earmarked for Namibia Housing Enterprises (NHE); the MRLGHRD, Local Authorities and Regional Councils are assigned the social/subsidy housing, while private developers and commercial banks mainly develop houses for the credit linked-housing. Community-based programmes like the Shack Dweller Federation of Namibia (SDFN), Otjiwarongo based Namibian Clay House Development Trust etc. also play a major role in facilitating housing for the people. Despite the existence of these initiatives, the housing market in Namibia is still dominated by the mortgage finance providers, mainly commercial banks and private property developers, catering mainly to upper and upper-middle income households (Mwilima, Fillipus, & Fleermuys, 2011). This situation makes it difficult for the low-middle income households in Namibia to access affordable housing, thus, the need for an integrated affordable housing strategy for Namibia and Windhoek in particular.

## Housing Provision and Backlog in Namibia

Although the government of Namibia has initiated several projects and programmes for housing delivery in general and social housing in particular (MRLGHRD, 2009), the housing backlog is still growing exponentially. Currently, the housing backlog stands at approximately 105,000 housing units; and is estimated to be growing at 3,700 units per annum (Ministry of Finance, 2014). There was a housing backlog of approximately 80,000 by 2011, and 105,000 by 2013, as shown in Table 1. This gap is growing exponentially as the determinants of housing demand and supply continue to rise albeit not in the same proportion, as seen in Figure 1. A notable feature of the Namibian housing backlog is that over 90 percent of it affects low-middle income households.

Table 1. Housing backlog by category of monthly income

Housing Backlog				
Monthly Income Category	**Proportion of the Population (%)**	**2008**	**2011**	**2013**
>N$ 10,500	5,7	706	700	780
N$ 4,601 – N$ 10,500	7.3	4,201	4,000	4,260
N$ 1,501 – N$ 4,600	35	29,554	30,000	36,700
<N$ 1,501	52	27,249	45,000	63,260
Total (approx..)	100	62,000	80,000	105,000

Sources: Kalili, Adongo, and Larson (2008), Els Sweeney Bindels (2011). and MRLGHRD (2013)

Figure 1. Housing backlog since 1991 adapted from Rowland (2013)
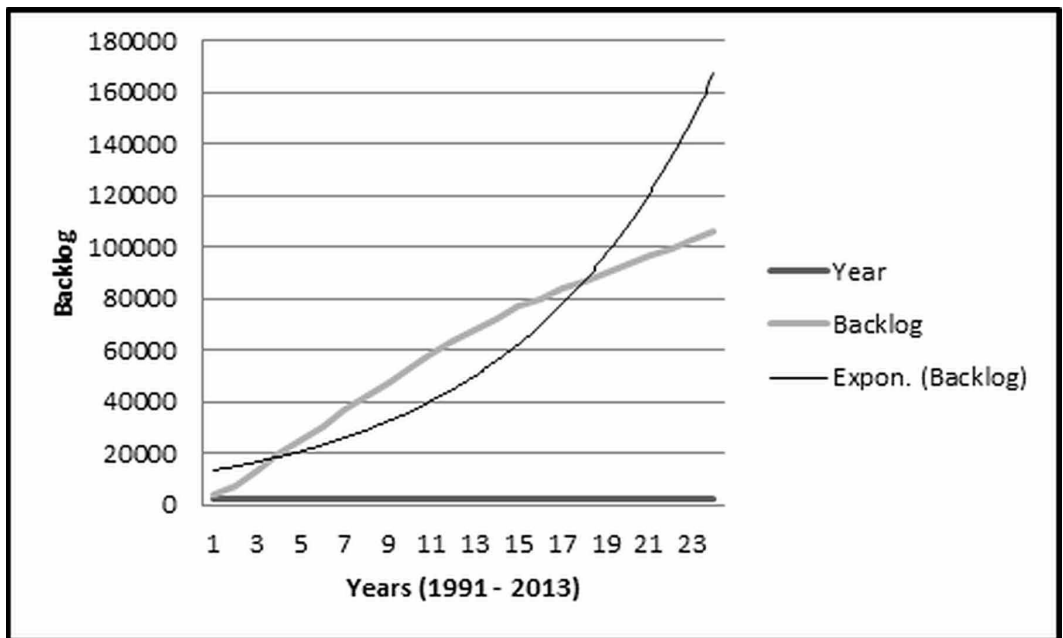
Kalili (2014) argues that while the demand for properties continues to increase, new housing supply show a downward trend as fewer properties become available for exchange. This results in a discrepancy between the demand and supply of housing in Namibia.

Although several programmes and initiatives have been in the pipeline in Namibia for housing, there appears to be a gap in the implementation mechanisms needed to link the separate housing initiatives to affordable housing. This lack of an integrated framework for affordable housing makes it difficult to reduce the gap between the supply of, and the demand for affordable housing as shown in Figure 1.

More specifically, the purpose of this paper is, firstly, to identify an effective and efficient model for the delivery of affordable housing for the residents of Windhoek. Secondly, through the application of the stakeholder approach to affordable housing using the hybrid value chain analysis, the paper intends to determine the appropriate mix between public, private institutions and community

involvement in the delivery of affordable housing. Finally, it aims to suggest possible policy interventions necessary to achieve effective and efficient delivery of affordable housing in Windhoek.

LITERATURE REVIEW

Affordable Housing

The affordable housing phenomenon evolved mainly because of the rapid growth of cities fuelled by the rapid rural urban migration and industrialisation. According to Hulchanski (1995), the term marked a shift in the public housing policy debate from slums and low-rental housing problems, to housing affordability issues. Many authors according to Woetzel et al. (2014) define affordable housing differently. However, defined, three themes appear common; the financial component, the standard for what constitutes minimum socially acceptable housing, and the income level households become eligible for housing assistance. According to Parekh et al. (2008), for example refers to affordable housing as any housing that meets some form of affordability criterion, which could be the income level of the household, size of the dwelling unit in comparison to monthly income (EMI) or the ratio of housing price to annual household income. Othman and Abdellatif (2011), suggest that when the monthly carrying costs of a home exceed 30-35 percent of household income, then the housing cost to that household is unaffordable. Similarly, according to Emsley et al. (2008), affordable housing refers to housing that accommodates the needs of households whose incomes are not enough to give them access to appropriate housing in the conventional housing market without assistance. More so, Murphy and Cunningham (2003) expand the concept to include four variables that could be used to evaluate the affordable housing stock in a community. These variables are accessibility, adequacy, availability, and affordability. With reference to the UNCHS (1997b), adequate shelter includes adequate privacy, space, physical accessibility, security, and lighting; heating and ventilation; as well as adequate basic infrastructure available at an affordable cost. Incidentally, the MRLGHRD (2009) agrees with Murphy and Cunningham's view. It articulates that a housing delivery model for Namibia should aim at creating a sustainable human settlement through an integrated development approach. By implication, a model for understanding an Integrated Urban Affordable Housing and Services Delivery in Namibia presupposes The Habitat Agenda: Chapter IV: B as the main point of departure. As such, in this paper, the concept of affordable housing will include a scenario where the housing stock meets the four main criteria of accessibility, affordability, adequacy and availability in line with general goals of affordable housing (Katz et al. 2003).

According to Drayton (2008), the affordable housing problem is a manifestation of a systematic market failure transmitted through the low-income housing value chain. He argues that in properly functioning markets, excess demand leads to an increase in supply to maintain equilibrium. Unfortunately in the affordable housing context this has not been possible suggesting the need for government intervention. The housing affordability problem is attributed to the inefficient or non-existent property rights and land registration systems, low quality and highly priced building materials, and failure to acknowledge and utilise the incremental nature of housing for low-income communities. In addition, the problem is exacerbated by the extensive use of semi-skilled and unskilled workforce leading to unsafe structures for occupancy. Bertaud (2007) points out that the general increase in house prices, interest rates and rentals over the last few years explain why housing affordability has remained persistent 21st century headline news. These same factors reflect the nature of housing market featuring on the demand side general household growth; real incomes and wealth growth; tax concessions; concessions to first homebuyers; returns on alternative investments; cost and availability of finance for housing; and institutional structures affecting housing finance provision (Milligan & Yates, 2007). Additionally, on the supply side, factors such as the availability of land; land development processes and policies; infrastructure costs; cost of construction; and property-related taxes are common obstacles. According to Kalpana and Madalasa (2015), affordable housing recently has focused on affordable

private housing initiatives through structured subsidies and financing options aimed at optimising supply side levers along with favourable revenue measures to sensitize private sector participation. The implication is that, addressing housing affordability problems requires simultaneous supply and demand side interventions while taking into account city-specific circumstances pointing to the need of an integrated framework.

Affordable Housing Models

In most developing countries, housing models featuring top-down and bottom-up approaches have been implemented, but with little success. By implication, the continued housing shortage in Namibia, suggests that the government's interventions alone in the form of a producer have resulted in sub-optimal housing provision and stifled the efficacy of the housing market to increase housing production (Sengupta, 2006). Ibem (2010) and Porter (2000) suggest the enablement approach to housing where the government acts as the facilitator of the housing process by providing an enabling environment that supports optimum performance of the other housing value chain actors in the form of an industrial cluster. The enabling environment constitutes the facilitation of access to land acquisition, finance, infrastructure and basic services, removal of restrictive legislations, as well as the introduction of realistic building and land-use regulations. These are needed within an institutional framework that encourages multi-sectoral participation in housing delivery (UN-HABITAT, 2006). This supports Keivania and Werna (2001) argument for the adoption of a comprehensive approach to enabling strategies for the provision of housing to the low–middle income households. The authors also suggest the inclusion of different models and agents of housing provision in a holistic and integrated policy framework instead of a purely private-sector led provision to the low-middle income households. Generally affordable housing provisions fall into two broad strategic approaches; the universal approach whereby the entire population have access to acceptable and affordable housing and the targeted approach focusing on weaker sections (Kalpana & Madalasa, 2015). However, Woetzel et al. (2014) suggest that these models broadly fit into four major housing delivery models, namely, community-led, incentive-based private development, public-private partnerships, and public-sector delivery. Besides the above non-specific sector models, have also been identified like the cooperative model that integrates the various sectors, for example the Parramatta's cooperative housing projects in New South Wales (NSW), Emsley et al (2008).

Community-led provisions according to Lang and Mullins (2014) are homes developed and/or managed by local people or residents, within non-profit organisational structures. These organisations take on a variety of forms including community land trusts, mutual organisations and co-operatives, co-housing, self-building and others. However, Adeogun and Taiwo (2011) use the term community-led housing to refer to a neighbourhood, slum, group of local NGOs, group of militant leaders, residents of a small town, workers' union trust, group of women, etc. The community-led model involves direct beneficiary participation in the provision. Although it scores highly as a bottom-up approach aimed at building public and community awareness and confidence, it is time consuming and has limited influence on public policy. The incentive-based private development model on the other hand is where private developers receive financial and non-financial incentives to build affordable housing; these are either sold to consumers or purchased by the government for further allocation to citizens, or operated as rental property (Woetzel et al. 2014). However, this model is mainly effective for the delivery of housing to the middle-high level income households with access to the conventional housing market finance; and not the low-middle level income households with low access to the conventional mortgage market.

The partnership model, like its counterparts in public infrastructure development involves the government or government agency and a private developer. According to Ibem (2010), it may represent collaborative efforts between public, private and third sector organisations based on mutual trust, division of labour and comparative advantage in the sharing of responsibilities, risks and benefits along the value chain to achieve an agreed goal. Using Kolkata's case, Sengupta (2005), argues that the

constitution of public-private partnerships has improved the condition, quality and stock of housing. This approach brings together the private sector efficiency in production, technical and marketing expertise with the public sector accountability and equity concerns. Finally, the public sector delivery that remains the dominant mechanism is where the government through a public agency hires private-sector contractors to build on public land under its ownership and control (Woetzel et al 2014). For example, according to Orlebeke (2000), contemporary public affordable housing strategies for the low-income housing assistance policy feature three main elements - vouchers, block grants, and tax credits. Even though the current thinking on affordable housing represents a shift from the highly subsidised public provision to the adoption of strategies that can help reduce the cost of market housing provisions generally. According to Milligan et al. (2007), these strategies include lower taxation of properties and property transactions costs. The authors also add that these strategies reduce the effects of urban planning policies and processes on costs; more efficient approaches to land subdivision, housing design and construction methods; and innovative financing and marketing of housing. Table 2 represents an assessment of the four affordable housing strategies against the goals of an effective affordable housing programme.

These affordable housing delivery models have been widely implemented as either a stand-alone, which is a single sector approach or in combinations taking into account the country specific context. In spite of these efforts, success in the supply of affordable housing still remains elusive in a majority of developing countries.

Hybrid Value Chain Analysis

Porter (1985) presented a value chain analysis framework as a strategic tool for identifying enterprise level business opportunities and the organisations' sources of sustainable competitive advantage; however, this concept has not found wide application in social value chains. However, the co-existence of competition in global markets and the knowledge of a huge underserved market at the bottom of the pyramid in developing countries, suggests an opportunity for collaboration between citizen-sector organisations (CSOs), the business and public sectors constituting a hybrid value chain. The hybrid value chain represents a meta-organisational arrangement comprising inter-organisational relationships and integrated business processes beyond the borderlines of individual firms (Halldorsson et al., 2007). These collaborations leverage complementary strengths of these organisations. For example, businesses offer scale, efficiency, and financial access (Drayton and Budinich, 2010); whereas CSOs

Table 2. Affordable housing strategies and goals of affordable housing policies matrix

Evaluation Criteria	Public Housing	Community Housing	Private-Incentive Housing	Public-Private and Community Partnerships
Increase the supply of good-quality housing units			✓	✓
Making housing more affordable and readily available				✓
Promote social and economic diversity in residential neighbourhoods	✓	✓		✓
Assist households build and accumulate wealth		✓		✓
Strengthen families	✓	✓		✓
Link housing with essential infrastructure services	✓	✓		✓
Promote balanced urban growth and development	✓	✓		✓

Source: Katz et al. (2003)

lower costs through collaborative product design and distribution systems using strong social networks and deep insights of low income customers and communities. Therefore, the value chain analysis in the context of innovative systems perspective potentially brings together different stakeholders in the affordable housing value system at different points leveraging their strengths to generate sustainable value for all. According to Ferguson (2008), hybrid value chains are social-business models that seek to create partnerships between the citizen and the business sector organisations. These models systemically address low-income populations' needs through the delivery of essential and affordable products and services. Tsenkova (2002) argues that collaborations between public, private and citizen sectors partnerships have a long history primarily driven not only by changes in urban policy and government ideology, but as pragmatic efforts to respond to the complex urban regeneration problems. Thus, through innovative business models, business organisations seek means and ways of tapping into the low-income customers and hybrid value chain is among these management innovations. The low-income consumer market segment defies traditional business models as it requires pricing strategies aimed at the lowest possible prices; delivery infrastructures capable of handling a significant volume of smaller transactions; promotion strategies that require extensive consumer education; and structurally different consumer values and needs (Budinich, 2005). Additionally, Ferguson (2008), argues that the value chain analysis represents one of the modern management strategies suitable for squeezing costs out of the social housing delivery process by creating "value chains" consisting of innovative packages of products and services. This argument is backed up by the MRLGHRD (2009) argument that the provision of affordable housing should go beyond the provision of shelter per se, but rather should integrate other community services aimed at totally uplifting the living standards of these communities. For decades, governments have formulated several policies to achieve this, but the results are dismal.

The Hybrid Value chain analysis (VCA) integrates theoretical perspectives of organisation effectiveness featuring; the resource-based, industrial organisation-based and institution-based views. According to Helfat & Peteraf (2003), a resource-based view provides an explanation of the sources of organisation efficiency primarily derived from the possession of scarce and superior resources and dynamic capabilities. The possession of these superior resources and capabilities not only enables the organisation to cut costs, but also creates increased value to customers. The industrial organisation-based view, on the other hand, according to Porter [1980, in Peng, Wang, and Jiang (2008)] suggests that organisation competitiveness derives from conditions within an industry, which largely, determines the firm's strategic choice and performance. These two perspectives complement each other, as the resource-based value is inward focused and the industry-based view is externally focused. The institutions-based view according to Peng, Wang and Jiang (2008), underlies the formal and informal institutional arrangements, which provide the context of competition among industries and firms. Therefore, a value chain system is fundamental to the smooth functioning of market-based systems as it connects a series of organizations, resources, and information in the creation and delivery of value to end customers. In the context of housing development, the construction value chain process starts with site identification and land acquisition, unit design, provision of support infrastructure, control of the product delivery process and financing as well as building maintenance plans.

Affordable Housing Stakeholder Engagement

Stakeholder theory as an organisational sustainability management paradigm emerged as a reaction to managerial capitalism of the stockholder theory. The theory posits that successful commitment of stakeholders involves getting their support and working together to devise, plan and develop new business solutions that meet the expectations of all stakeholders (Menoka et al., 2013). According to Freeman (2010), a stakeholder is any group or individual who can affect or is affected by the achievement of the organisation's objectives. He further proposes a framework for stakeholder analysis and management which includes three levels; rational, process and transactional. At the relational level, emphasis is on who the stakeholders of the organisation are and what their expectations are

from the organisation. Similarly, at the process level focus is on understanding how the organisation directly or indirectly manages its relationships with its stakeholders, and finally at the transactional level, considerations is given to the set of transactions or bargains between the organisation and its stakeholders aimed at inferring whether these negotiations are within the stakeholder map and the organisational processes. This theory is applicable to the hybrid value chain approach to affordable housing delivery for the city of Windhoek depicting multiple stakeholders with varied interests. At the macro-level, the main stakeholders to the affordable housing in the city of Windhoek include the public sector, private sector, community based organizations (CBOs), and the beneficiaries. Within each grouping there are sub-divisions and roles.

Managing Value Chains

The management of value chains requires the coordination of different actors and activities within the value system. The value chain coordination links the flow of information, goods and services, thereby providing systems and processes for adjusting activities and maintaining quality collectively seen as transactions. According Schmitz and Humphrey (2000), an important aspect of value chain analysis is its emphasis on coordination mechanisms also called governance. The responsibility of value chain governance seen in terms of cost optimisation, increased quality, adoption of specific technology or business processes, and compliance with regulation, rules and procedures, invariably rests with the lead firm. Admittedly, the governance role within a value system can be internal or external to the value system. When constituted internally, it determines the structure of relationships and coordination mechanisms that exist between actors (Asia Development Bank, 2005); however externally, it provides a mechanism for identifying the institutional arrangements and support systems necessary to improve targeted value chain interventions.

Several theoretical approaches are used to understand the concept of value chain governance. In this paper, reference is made to three main theoretical approaches to value chain governance, namely, transaction cost economics, organisational and social structure theories. According to Bijman, Muradian, and Cechin (2011), the ability of organisations to engage in value chain coordination requires insight from transaction cost economics, organization and social structure theories. In the context of organisation theory, coordination in value chains is centred round managing different interdependencies between activities and processes. Interdependencies exhibit different characteristics which are pooled, sequential and reciprocal, each demanding different coordination mechanisms. Bijman, et al. suggest that pooled interdependency is better handled by the development and implementation of standards for production, distribution and product quality controls; whereas sequential interdependency requires mechanisms associated with managerial discretion, that is coordination by plan or command while reciprocal interdependency requires mutual adjustment. These organisational coordination mechanisms have implications for the management of affordable housing value chain featuring activities spread between the enabling environment, main actors and business support services in each component of the chain. Additionally, according to Williamson (1985), transaction cost economics (TCE) suggests a shift from organisational focus per se as a mechanism for cost control through organisational information exchange and decision making to a focus on elimination of transactional risks and their costs, thereby providing the organizational structure best suited to reduce these costs. Finally, due to social embeddedness of transactions in social systems, transaction costs can also be reduced through informal mechanisms in the form of social structures featuring social capital and trust.

Bijman, et al. (2011); Saes and Luiz da Silva (2007), suggest that the interplay of various coordination mechanisms featuring organisation theory, transaction cost economics and social structures leads to four main value chain governance approaches, namely, Market, Hierarchy, Community and Democracy. These different value chain coordination mechanisms have implications for value chain interventions that are up-gradation and sharing of economic gains and therefore address

instances of market failure. According to Jones (2009), value chain up-gradation activities include any kind of investment that results in the firm or the value system becoming more productive: that is, training the workforce, adopting new technology, bundling of activities, obtaining production certifications and investing in research and development, as well as proactive development in networks. Often, leading firms demand immediate cost reduction, quality enhancement and faster delivery making it necessary for participating firms in the chain to scale up very quickly (Humphrey and Schmitz, 2001). An important outcome of the value chain up-gradation exercise is the need to track the ultimate customers' preferences and urgently build them into products and services design. In addition, the nature of value chain governance determines how the benefits and economic gains are finally distributed. According to Kaplinsky and Morris (2012), economic gains and competitiveness arise mainly from three sources. These sources include deliberate entrepreneurial actions internal to the chain like possession of superior technology, marketing, organisational, human capital, and networks; natural endowment external to the chain; and actions of external parties to the chain like government policy, infrastructure, financial etc. Additionally, Kaplinsky (2000) argues that the ability to govern and share in the economic rent often rests in the ownership and control of intangible competences like R & D, design, branding, marketing etc. The dynamic nature of economic gains implies that new sources of gains are added over time, while existing areas of gains are eliminated through competitive forces. Therefore, the three tools of value chain analysis, namely, governance, up-gradation opportunities and economic rent provide the basis for organic configurations of coordination types and governance mechanisms for value chain management and interventions.

METHODOLOGY

The twin purposes of this paper as articulated in the last section are to identify an efficient and effective model for the delivery of affordable housing, as well as an appropriate allocation of roles among the government, private sector and the social sector organisations in the supply of affordable housing to the residents of Windhoek. Thus, the paper focuses on the analysis of the housing policy in Namibia from a hybrid value chain perspective. Through the analysis of documentary evidence based on published information on affordable housing and public housing policy documents, and other related materials in Namibia and elsewhere, the paper aims to achieve its objectives.

An interpretivist research perspective is adopted mainly employing documentary analysis to explore and determine the stakeholder roles and contributions, possible breakdowns in the affordable housing value chain aimed at identifying likely chain interventions. This paper emulates the approach adopted by the Sujiyantoro (2001), where operations of the housing policy in Indonesia were compared to two selected successful housing provision models, the Pugh model and Keivani & Werna Model. Furthermore, this paper adopts Woetzel et al. (2014) and Katz et al. (2003), public-private partnerships model for housing provision, along with the Ferguson (2008); Drayton and Ashoka (2008) proposed hybrid value chain model for streamlining progressive housing problems in emerging markets. There is convergence in conceptualising the supply of affordable housing in accordance with the affordable housing value chain. Milligan et al. (2007) depict four categories of activities associated with the development of an affordable housing supply project which are development activity, tenant selection, tenants' management and asset management. Additionally, Ferguson (2008) summarises these stages into three main components of housing supply value chain which are housing acquisition, improvement and security as analysed and modified in Figure 2. This model is used to identify the possible model for stakeholder engagement, and the distribution of duties and responsibility within the affordable housing value chain. In the City of Windhoek, the affordable housing stakeholders are government ministries, the municipal council, government agencies, house property developers, financial institutions, citizen social organisations, beneficiaries and community at large.

Figure 2. Hybrid value chain for affordable housing
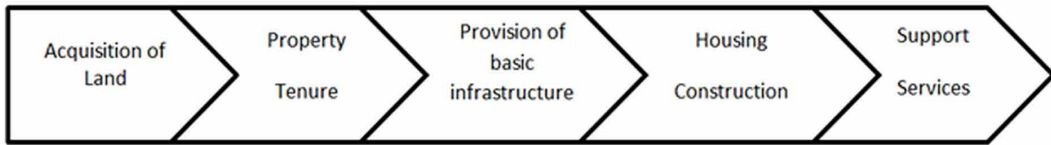
RESEARCH FINDINGS AND DISCUSSIONS

According to Bank of Namibia (2011), the Namibia Housing Policy provides a framework for channeling resources towards affordable and sustainable human settlements, particularly the low and ultra-low income groups. On the legislative front, the National Housing Policy is supported by the following Acts of Parliament: Namibia Estate Agents Act (1976); National Housing Enterprise Act (1993); Local Authorities Act (1992); National Housing Development Act (2000), Banking Institutions Act (1998), Pension Fund Act (1956). Other influential and supporting policy frameworks also include Namibia Vision 2030, the Five Year National Development Plans (NDPs), Millennium Development Goals, and Targeted Intervention Programme for Employment and Economic Growth (TIPEEG). While these Acts and Policies focus on different aspects of the housing delivery mechanisms, taken together, they provide an enabling and supportive environment for the various housing development initiatives in Namibia. Operationally, the NHP (2009) identifies four housing processes, namely, credit linked-housing, rental accommodation with an option to buy, social/subsidy housing, and houses built by the community. The first and second categories are earmarked for Namibia Housing Enterprises (NHE). The MRLGHRD, Local Authorities and Regional Councils deal with the social/subsidised housing, while the private developers and commercial banks mainly develop houses for the upper income levels.

The community-based organizations play a major role in facilitating housing by the people. However, the housing market in Namibia is still dominated by the mortgage finance providers who are mainly commercial banks and private property developers, catering to the upper and upper middle-income population (Mwilima, Fillipus, & Fleermuys, 2011). This situation makes it difficult for the low-middle level income households to access housing because they are not able to acquire housing finance at market interest rates. The housing policy emphasises strategies that involve community participation at all levels of the housing process that is, planning, designing and implementing (Itewa, 2002). These interventions are classified as government or non-government programmes. Government programmes include the Build Together (BT) programme which consists of four sub-programmes: urban/rural housing loans schemes, social housing, single quarters' transformation and the informal settlement upgrading programme (Bindels, 2011); the National Housing Enterprise (NHE) that acts as both a lending institution and a developer in the field of affordable housing - targeting both the conventional housing and core unit concepts. The Habitat Research and Development Centre, a government initiative promotes research and the use of indigenous building materials.

In Namibia, a recent intervention by the public is the Mass Housing Initiative intended to build 185,000 new low-middle income houses by 2030 through a mass housing initiative. However, an effective government intervention in the affordable housing initiative could be seen in terms of promulgation of a number of legal instruments and supportive regulatory frameworks, housing finances schemes and housing construction programmes (Mwilima et. al. 2011). These, together, constitute the missing enabling environment for other parties to perform their role. Non-government programmes and initiatives in the Namibian housing sector include the Shack Dweller Federation of Namibia (SDFN) with regional branches. Established in 1998, SDFN is a network of housing saving schemes for low-income households that aim to improve the living conditions of low-income households living in shacks, rented rooms as well as those without any form of accommodation. The

programme encourages women's participation in the scheme as they are the majority of the low-income population in Namibia (Bindels, 2011). Other programmes include the Otjiwarongo based Namibian Clay House Development Trust established in 1991, and the Kavango Bricks focusing on delivering innovative housing solutions using high quality local and sustainable materials. The closeness of the non-government organisations to the grass-root would inspire trust, marketing expertise, legitimacy with clients, civil society players, access to local expertise as well as sourcing and distribution systems.

In the private sector, the participants range from the Private Property Developers, Financial Institutions and Services Providers. Certain initiatives like the Fritze & Quelle, focusing on the affordable housing market, have been tried. This initiative was established in 2009 in Swakopmund, focusing on developing low-cost housing ranging from N$ 50,000 to N$ 200,000 in Swakopmund. According to Bindels (2011), the Fritze & Quelle initiative brought together a range of partners from the construction industry, banking sector and legal profession, with interest from the German Development Cooperation (GITZ) - with the aim of minimising the overall cost of housing. Perhaps in Namibia, this is the closest an integrated model concept for affordable housing had been tried, but the project remained unimplemented.

Based on the review above, the analysis of affordable housing initiatives and programmes in Namibia are extensive. However, these initiatives appear not integrated in the form of an industrial cluster to optimise the production and delivery of affordable housing in accordance with hybrid value chains requirements, to achieve the scale required. Instead, there are pockets of activities with two dominant players: government and private sectors offering parallel programmes and initiatives. These counter the philosophy of industrial clusters according to Porter (2000).

The need for an integrated solution to affordable housing in Namibia arises from the nature of the existing housing sector, featuring limited financial support for the lower-middle income households as they are perceived to be a high business risk. Based on the proposed model for affordable housing, the government is expected to carry out the functions of land acquisition, tenure upgrading and provision of basic infrastructure services. Secondly, the private sector is expected to contribute to the supply of high quality and affordable construction materials, financing, building designs and construction. Lastly, citizen sector organisations are to provide marketing, community development initiatives, and housing design input through a central governing institution in the form of a housing cooperative.

Directions for Future Research

This research was mainly exploratory and was based on the analysis of documentary information. Hence, a comprehensive empirical study based on the hybrid value chain concept in Namibia, and its application to affordable housing in particular, is needed. In depth studies could also focus on the different aspects of the affordable housing value chain such as land tenure upgrades, acquisition, and titling; provision of basic support infrastructure including financing besides housing construction and maintenance technology.

RECOMMENDATIONS

Apart from providing shelter, housing constitutes a significant part of a household's wealth and integrates strategically to other sectors of the economy. Therefore, access to decent, secure, and affordable housing is inextricably linked to good health and well-being the world over. In Namibia, the government acknowledges the fundamental position of affordable housing in the achievement of millennium development goals, and therefore, socio-economic stability. However, limited access to housing in Namibia, more so in Windhoek, is of great concern considering that 70 percent of the population cannot access decent housing due to affordability related problems (Mwilima, Fillipus, & Fleermuys, 2011). Several strategies and programmes have been initiated by the government in the housing sector. However, a majority of Namibians still find it difficult to access affordable housing through the market. These interventions are classified as government, private and non-government

programmes and initiatives, but are not integrated in the form of an industrial cluster as suggested by Porter (2000). Industrial clusters benefit from externalities that cannot be priced by the market mechanisms to the benefit of consumers (Kuah, 2002), and therefore, can optimise the production and delivery of affordable housing in accordance with hybrid value chain requirements. There is evidence that cross-sector partnerships create and deliver value in innovative ways, while minimizing costs and risks along the value chain by developing products or services that neither sector could beneficially produce alone (Dahan et. al., 2010). In support of the proposed model for affordable housing, the government will be expected to carry out the functions of land acquisition, tenure upgradation, land registration and provision of basic infrastructure services including land information systems, roads, power, water to mention a few; while the private sector will be expected to contribute to the supply of high quality and affordable construction materials, flexible financing options, building designs and construction. The citizen sector organisations should provide marketing, community development initiatives, and legitimacy with clients, sourcing, distribution systems, and housing design input through a central governing institution in the form of a housing cooperative.

CONCLUSION

Based on the findings and discussions, a number of initiatives are necessary in improving the affordable housing value chain in Windhoek. According to the hybrid value chain model, an understanding of the nature of housing need of the low-middle income household is the starting point. This task is suited to the citizen sector as non-government grass-root organisations. They can play the role of educating the low-medium income households' market on the available alternative building solutions that are more cost effective for both building improvement and new developments. Because they are trusted by this market, they can act as the mouthpiece for housing design and marketing of ideas to the segment.

A central issue to the availability of affordable housing in Namibia arises due to an inadequate supply of serviced land. Consequently, there is pressing need for the government to develop a comprehensive land information system, and super-structure to help with the identification of idle lands, ownership and registration. Comprehensive master plans are essential to sustain housing developments, remove informal settlements and thereby reduce pressure on infrastructure facilities. Incidentally these requirements are necessary conditions to attract private property developers in the affordable housing market segment. Along with the acquisition of land, the provision of basic infrastructure needed to support housing development cannot be overemphasized; but since it precedes housing construction, the private sector seemingly lacks the incentive to engage in its provision. The government needs to support this initial investment, either alone, or in partnership with private sector organisations through targeted incentives.

Simultaneously an area that requires input from the private sector is the supply of high quality construction materials and building development. There is need from the public sector to establish strategies to increase competition and industry structure to save both time and cost for contractors through standardisation. The adoption of the industrial approach to housing production can increase capital productivity through strategies such as design to value, purchasing excellence, and lean production including execution. The government's role is to accelerate the use of industrial approaches to construction through competition and upgrading the industry structure so that developers and contractors can benefit from economies of scale. The competitiveness of the construction industry has the potential to transform the producer rent to consumer surplus.

Finally, it is essential that the above initiatives are accompanied with flexible and innovative financing. Namibia needs a framework for reduction of affordable housing loan costs, increased access to borrowers and house developers, affordable housing consumer credit financing and institute suitable affordable housing rental programmes. There is also a need to strengthen mortgage underwriting skills, initiate competition to lower the cost, and institute structures to support microfinance providers and schemes.

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Isaac Okoth Randa is senior faculty in the area of Accounting and Finance at HP-GSB, Namibia University of Science and Technology, Namibia. With experience of more than a decade at university level of graduate and postgraduate teaching, Randa is qualified Insurance Professional also.