

An investigation of socio-economic and wellbeing factors influencing perception of development in rural Kenya: a structural equation modeling approach

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Background

Importance of perceptions and participatory development approach

While the involvement of local communities in their development is widely recognised as a key step in sustainable and equitable development (Chambers R, 1983, Sen A, 1999), very few rural development projects in sub-Saharan Africa and in Kenya use this approach. Recognised as a potentially beneficial approach to meeting the needs of beneficiary communities because of the ability to help prioritise community felt needs, participatory development has either been partially used or not used at all (Chambers R, 2005). Yet, understanding communities' perceptions, that is, their opinion regarding development in their context, and adequately involving them in development projects intended to benefit them, has potential in helping determine the best way to engage with them in implementing development projects that could best benefit them and at the same time be sustainable (Chambers R, 2005). It is therefore important to understand the factors influencing these perceptions since this may be important in guiding the best participatory approaches as has been found in other wellbeing studies (Bristor and Fischer, 1993, Hayhoe CR, 1990).

Perceptions and development participatory approach in Kenya

Although understanding perceptions of development is important in designing sustainable development projects, this approach has rarely been used in development projects in Kenya. Even fewer initiatives have incorporated this approach in development projects targeting the rural poor in the country, where most of the Kenyan population resides and where in some instances, health and development outcomes fare far worse than urban Kenya's (Alwy A and Schech S, 2004, KNBS and ICF Macro, 2010, Muhula R, 2009, UNDP and WHO, 2009, World Bank, 2009). This is despite increased emphasis on the need to shift the development efforts towards more community-engaged approaches, especially at the stage of planning for development projects (Chambers R, 1983, Sen A, 1999, United Nations, 2013). Yet, employing decentralised approaches in the country, more specifically participatory development has potential to drive equitable and sustainable development. The climatic, cultural, economic and infrastructural diversity within and between the regions of the country point to the need to employ a development approach that has potential to approach each group/region of the country as a separate entity in development efforts (Alwy A and Schech S, 2007, IFAD, 2010, Muhula R, 2009). For instance Makueni County where the present study is located, faces some of

the poorest infrastructural, wellbeing and health outcomes and being a semi-arid region, efforts need to be made to approach development of this area as a unique entity (CBS et al., 2005, Gichuki F et al., 2000).

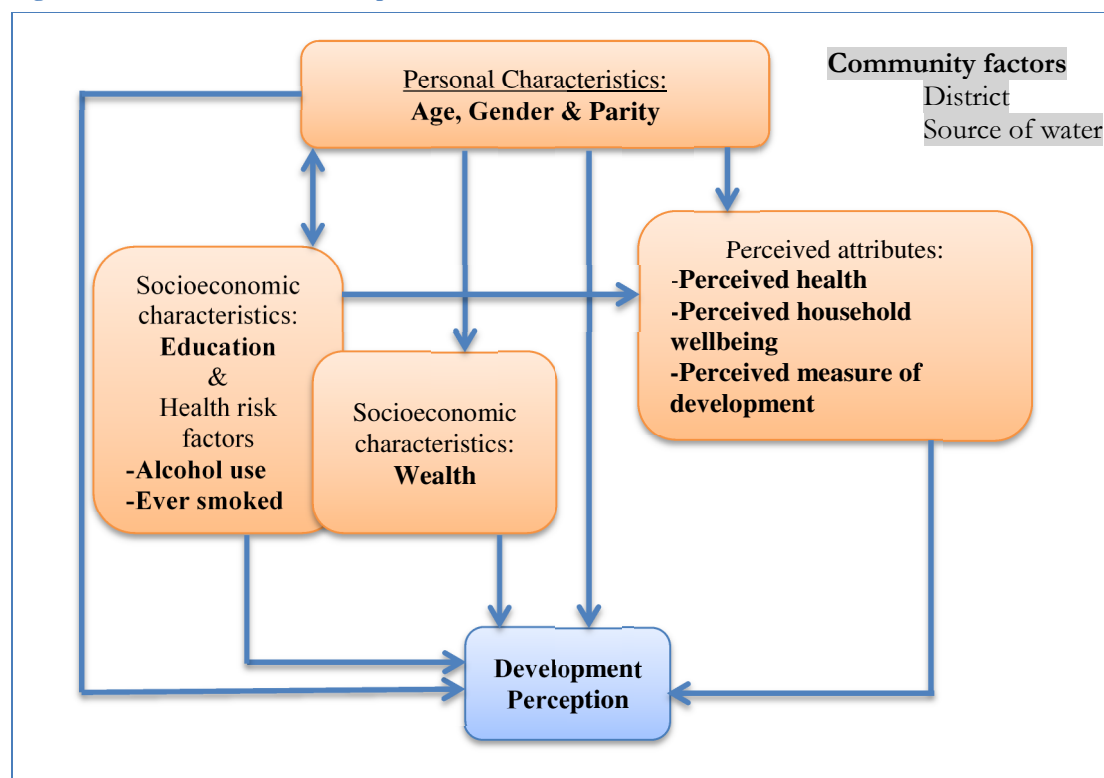
Theoretical approaches

This paper uses two theoretical approaches, merged together in the study; the Sustainable Development Approach and Amartya Sen’s Capability Approach.

I. Conceptual framework

This foregoing background and theoretical approaches points to a need to revisit the issue of participatory development approach that includes understanding of people’s perceptions of development, the factors influencing these perceptions and their participation in development activities in their context. This paper fits a model adapted from Porter & Garman’s Conceptual Model of Financial Well-Being (Porter NM and Garman ET, 1993). Factors influencing perceptions of wellbeing are adopted in this study because although perceptions of wellbeing and development are different concepts, they nevertheless are close enough and are both perceived concepts of improved livelihoods.

Figure 2 Model of Perceived Development



Data and methods

Study setting

The study was conducted in Kitonyoni sub location of Kathonzweni district in Makueni County in October 2012. The sub-location, an area covering 27.1 sq km and Density of 96 has a total population of 2,500; 1,284 males and 1,306 females (KNBS, 2010). Makueni county is a semi-arid area where residents traditionally depend on farming as the primary means of livelihood, although now shifting to other means of livelihood, specifically, migrant labour to the towns and cities as a result of increased poverty in the district (Nzioka C, 2000).

Data

The study uses individual and house-level data collected from a sample of 275 households of the 487 households in the sub-location. Within the sampled households, a male and female of reproductive age were selected and interviewed in each household alternately. These respondents were aged between 18 and 49 years for women and 18 and 54 years for men. Questions were asked on household economic status, respondent's education level, parity, perceived health, perceived household wellbeing and perceived importance of electricity in development, smoking and alcohol consumption habits.

Dependent variable: The outcome variable is perception of development (PerDvlpt), using variables generated by asking 5-point scale.

Methods

Using Structural Equation Modelling

This paper uses structural equation modelling (SEM) in AMOS (Byrne BM, 2010). SEM is used in this paper because of the latent nature of the perception of development variable. This is a complex and multi-faceted variable that cannot only be adequately captured by the use of one variable, which would be inadequate to cover the full concept of development perceptions as perceived by the study respondents.

Results

Table 1 Demographic and household socio-economic characteristics of sample

| Characteristic | N=276 | |
|--|--------------------|------|
| | n | % |
| Gender (Sgen) | | |
| Male | 135 | 49.1 |
| Female | 140 | 50.9 |
| Educational status | | |
| Pre-primary/Primary | 201 | 73.1 |
| Secondary+ | 71 | 26.1 |
| Age | | |
| 18-24 years | 74 | 26.9 |
| 25-29 years | 57 | 20.7 |
| 30-34 years | 44 | 16.0 |
| 35-39 years | 37 | 13.5 |
| 40-44 years | 33 | 12.0 |
| 45-49 years | 30 | 10.9 |
| Parity (number of children) | | |
| None | 60 | 21.8 |
| 1-2 | 43 | 15.6 |
| 3+ | 172 | 62.5 |
| Religion | | |
| Christian | 272 | 98.9 |
| Other | 3 | 1.1 |
| Employment status | | |
| None | 228 | 82.9 |
| Self | 22 | 8.0 |
| Other | 25 | 9.1 |
| Household income (Kes)- Mean(SD) | 5,935.82 (5392.25) | |
| Educational status | | |
| Pre-primary | 201 | 73.1 |
| Primary complete | 67 | 24.6 |
| Secondary+ | 4 | 1.5 |
| Missing | 3 | 1.1 |
| Housing material (floor) | | |
| Natural | 183 | 66.5 |
| Finished | 92 | 33.5 |
| Source of water at household | | |
| Well (protected) | 71 | 25.8 |
| Unprotected (eg surface, unprotected well) | 202 | 73.5 |
| Other | 2 | 0.7 |

Table 2 Parameter Estimates of perceived development and independent characteristics

| Parameter Estimate | Unstandardized (SE) | P |
|-------------------------------|------------------------|-----|
| Wealth | 0.074 (0.064) | |
| DvlptElec | 0.044 (0.067) | |
| Perceived household wellbeing | -0.080 (0.042) | ** |
| Perceived health | 0.043 (0.064) | |
| Age | -0.006 (0.004) | * |
| Gender | -0.321 (0.076) | *** |
| Education | 0.064 (0.073) | |
| Parity | 0.009 (0.088) | |
| Alcohol consumption | 0.262 (0.116) | ** |
| Ever smoked | 0.212 (0.093) | ** |

*p<.10

**p<.05

***p<.001

Discussion

This study found gender to be highly significant on how respondents perceive development. This emphasizes the importance of gender as found in other studies, especially those investigating factors influencing perception of economic wellbeing (Bristor and Fischer, 1993, Hayhoe CR and Wilhelm MS, 1998, Leach LJ et al., 1999, Mohamad FS et al., 2006, Neil A et al., 1980). All these studies highlight the importance of gender as they argue that socialization engenders the viewpoints that men and women have and would therefore influence how they perceived their economic situations. In some of these studies, these analyses are even conducted separately, which differs from the analysis in the present study which had very few data to run the model once the data was split by gender.

Although household wealth status in this study did not have a significant effect on perception of development, the same variable, an objective economic wellbeing, measured using household income or wealth status has been found to have an impact in other perceived studies (Bookwalter JT and Dalenberg D, 2004, Mistry et al., 2002). A study focusing on the impact of economic wellbeing on children's adjustment found household wealth to have an impact on children's adjustment (Mistry et al., 2002). Although the theme of this paper was not directly related to the present study (perceived development), it nevertheless points to the importance of economic wellbeing, using a similar analytical approach (structural equation modeling) to assess the impact of various factors of child development. In the Mistry et al (2002) study however, the community had quite a diverse ethnic and economic wellbeing while in this present study, the community is homogenous, sharing the same language, religion and experiencing low economic status as highlighted by the responses on perceived economic wellbeing and on the other socio-economic characteristics including access to water, household income, housing material and education status (Mistry et al., 2002). This current study finds the average perceived family position on a 10-step development ladder to be 2.32 with a standard deviation of 0.04 and median of 2, indicating a very low perception of one's wellbeing. In addition, other socio-economic characteristics including access to water, household income, housing material and education status (Table 3) point to a poor community. Consequently, these results may influence one's perception of development. Other studies, although focusing on perceptions of one's economic wellbeing have found perceived financial situation, in comparison to friends or neighbours to have a significant effect on one's perceived economic wellbeing (Hayhoe CR, 1990, Porter NM and Garman ET, 1993).

Further investigation therefore is needed to develop greater understanding on this important aspect of perceived economic well-being in a culturally, ethnically and economically diverse environment. In addition, further studies putting gender into consideration are needed. This is because since women do report a higher likelihood of economic adversity, it is important to determine what factors contribute to this gender difference. It also is important to study economic adversity's role in affecting perceived economic well-being and to determine if economic adversity, rather than differences in gender values, is the underlying factor affecting perceptions of economic well-being.