Perceptual Differences of the Multidimensional Value of a Relationship with Agribusiness in South Mozambique: A Multi-group Confirmatory Factor Analysis

Joana M. M. Joaquim
https://orcid.org/0000-0001-8669-7731
Eduardo Mondlane University,
Mozambique
joanamatusse@yahoo.com.br

Ana Sampaio
https://orcid.org/0000-0002-5909-3702
University of Évora, Portugal
sampaio@uevora.pt

João Mosca
https://orcid.org/0000-0002-4864-6762
Rural Area/Environment Observatory,
Mozambique
joao.mosca1953@gmail.com

Abstract

In developing countries, the integration of family farmers and wage earners (WEs) into petty commodity producers (PCPs) in global value chains linked to international agribusiness is evident. These forms of production were driven by colonial governments and were associated with the plantation sector. Currently, these forms of integration are encouraged by the state, development agencies, and agribusiness. This study investigated the invariance in the perceived value (PV) between WEs and PCPs about their relationship with Xinavane Sugarcane (ADX), a foreign multinational capital agribusiness in Maputo Province, Mozambique. The reduced 12-item PERVAL scale related to four first order latent constructs of PV underlying the concept was explored: functional value (FV), emotional value (EV), social value (SV), and monetary value (MV). The perceptual differences between the groups were assessed using multi-group confirmatory factor analysis (MCFA). The results indicated no statistically significant differences regarding the groups' perceptions of MV, while the remaining perceptual differences can be partly explained by the PCPs' characteristics. Future research should compare both groups' PV, according to the modalities of integration, functions and the type of partnership agreement established with ADX. The study highlighted cognitive-economic judgment as a crucial factor in relational value creation in the agricultural context, and the

dependence of the affective and social aspects on cognitive-utilitarian aspects of the relationship. The study also served to gauge the benefits and sacrifices perceived by the PCPs' and WEs' decision whether or not to continue their relationship with ADX. The PV was applied in the context of a relationship in the provision of agricultural services. The study captured the PV from a multidimensional perspective which encompassed cognitive-utilitarian and hedonic aspects in emotional terms as well as social consequences derived from the relationship, in a comparative approach of groups with distinct characteristics evaluated simultaneously.

Keywords: agribusiness; perceived value; perceptual differences; reduced PERVAL scale; multi-group confirmatory factor analysis; African context; Mozambique

Introduction

The transnational restructuring of agricultural sectors for production and the efficient circulation of food has been accompanied by increasing corporate private regulation of agricultural production, trade, processing and consumption (Friedmann, 1993). In developing countries this new conjuncture was initially marked by plantation agriculture and the incorporation of peasants into a capitalist economy (Bernstein, 1994). Subsequently, it was stimulated and intensified by the policies and practices of developing countries and development support organisations (Oya, 2012). This new environment has generated a wide variety of commodity production forms which are linked to international agribusiness capital (agro-industrial plantations, peasant agriculture, and capitalised family enterprises). Similarly the forms of commodity production involve agrarian classes (Bernstein, 1994).

In Mozambique today, one of the leading commodity production sectors oriented towards the international and national foreign capital markets is the sugarcane sector. This sector represents one of the country's key strategic development areas, not only because it provides business opportunities for locals, but also because it contributes to the creation of rural employment which is associated with sugar-producing agro-industries.

In colonial Mozambique, the mainly export-oriented sugarcane plantations initially guaranteed their production process by recruiting "deadline labour", that is, the legal bonds between the Portuguese Crown and a subject, who, through the allocation of a delimited territory, would be obliged to pay a forum (Baltasar, 2017). With the development of other crops, such as cotton, tea, and the monoculture of copra in the plantation sector, recruitment difficulties became aggravated, due to competition for the same workforce. To respond to these constraints, the plantation sector and the colonial government applied the instruments of colonial economic policy of compulsory wage-earning, namely the institutionalisation of migrant labour and the institutionalisation of Mussoco. This was the labour legislation enacted in 1890 which required all

peasants to pay double the rent for the land. Half in rural work on plantations and the other half initially in cash and later in export goods (ivory, honey, gold, rubber, coffee, copra, peanuts, sesame (Serra, 1980). The first instrument consisted of imposing a half-year obligation for peasants to work as wage earners (WEs) and allowed men to be free to carry out agricultural work for the remaining six months (Head, 1980). The second instrument consisted of the payment of a double land rent – where half was paid in rural work on plantations and the other half initially in cash, and later by exports – ivory, honey, gold, rubber, coffee, copra, peanuts and sesame (Serra, 1980). Between the late nineteenth and mid-twentieth centuries, these instruments of compulsory wage earning were fundamental mechanisms for the integration of the peasantry into the market economy and the international capitalist system, and they allowed for the maintenance (period of non-employment) and the reproduction (children, future workers) of WEs (Mosca, 2005). As a result, the sugarcane sector benefited from reduced labour needs during the non-productive season, compounded by the purchase of labour below its value and capital accumulation through increasing ownership and continuity of absolute surplus value.

Nationalist projects and events, such as independence from colonialism, the implementation of the socialist governance regime, and the civil war, led to a rapid "Africanisation" of capital, land and labour, resulting in disinvestment in the sugarcane sector. However, new political situations occurred, such as structural adjustment programmes and market liberalisation, which, in turn, contributed to the rehabilitation and expansion of the sugarcane sector by South African and Mauritian capital during the late 1990s, contributing to the rehabilitation of the sugarcane sector.

In parallel with wage-earning in sugarcane production operations, there has been a growing emphasis on new institutional arrangements for outsourcing production, which have made contract farming a rational option for agribusiness. The combination of capital, land and labour through contract farming agreements was widely promoted and a number of models were proposed and later intensified as part of the agenda of international donor organisations to transform smallholder agriculture and to connect farmers to global value chains (Oya, 2012).

On the one hand, this new emphasis functioned as an alternative to agribusiness capital for the acquisition of land for sugarcane cultivation (Little & Watts 1994; Raynolds, 2000; Wilson, 1986). On the other hand, this new emphasis also acted as a means of promoting the participation of small producers as productive partners in the production of sugarcane for sugar factories, thereby boosting the development of communities which rely on income from the sale of sugarcane (Grosh, 1994; Key & Runsten, 1999).

Notwithstanding outsourcing production to petty commodity producers (PCPs), wage-earning is still a classic practice which is common in agro-industrial plantations that offers direct employment opportunities.

Studies on the productive organisation of work and the working conditions in the sugarcane sector show that agribusinesses generate unstable, insecure and precarious employment structures and social working conditions. Particularly in terms of agricultural work, with implications for the reproduction of low-cost labour for capital (Ali & Muianga, 2016; O'Laughlin & Ibraimo, 2013). What they refer to as forms of productive organisation of work that predominated in the monocultures of the colonial past, with repercussions on levels of remuneration – low wages – that did not cover the cost of subsistence of the workforce. Lazzarini (2016) and O'Laughlin (2016) point to seasonality, low remuneration and low security as characteristics of sugarcane plantations.

Wage earners cannot be deprived of all means of reproduction (i.e. of maintaining, replacing or increasing the means of production), but they also do not have sufficient means to guarantee their subsistence or the expansion of the means of production, which marks the limits of their viability as PCPs in peasant/family agriculture (Bernstein, 2010).

Against this background, it was deemed necessary to know how the agrarian classes, that is, the PCPs and WEs, perceive the changes in the traditional framework of the sugarcane sector in relation to the relationship established with the foreign capital agribusinesses.

This study investigated the invariance in the PV between the PCP and WE groups about their relationships with ADX. In the context of the current study, the case study was ADX. The PV study of the relationship of the PCPs and WEs with ADX was justified by the interest in knowing whether both groups perceive the value dimensions of their relationship with ADX in the same way. The assessment of perceptions may, or may not confirm the antagonisms that exist between the benefits/gains that the implementation of agribusiness brings, essentially with respect to the effect of the global market and the sacrifices/losses that occur from this relationship. This measurement of PV is crucial for the knowledge of the impact of the implementation of international agribusiness in a rural environment among the population. The comparative analysis of both groups' perception of value has implications not only for the sustainability of the agribusiness productive structure itself, but also for the support of decision-making by public authorities in the design of governance strategies..

Conceptual Development of Perceived Value

The definition and conceptualisation of perceived value (PV) are not consensual among academics. According to the literature, the history of the development of the concept (Zauner, Koller & Hatak, 2015) involved an initial conceptualisation of one-dimensional consumer PV (Bolton & Drew, 1991; Carvache-Franco et al., 2020; Currás-Pérez et al., 2018; Dastane, Goi & Rabbanee, 2020; Dodds & Monroe, 1985; Kunkel, Doyle & Berlin 2017; Potra et al., 2018; Sweeney, Soutar & Johnson, 1999; Zeithaml, 1988), merely associated with the economic and cognitive aspects of value.

For example, for Dodds, Monroe and Grewal (1991, p. 308), value is "the cognitive trade-off between perceptions of quality and sacrifice results in perceptions of value"; for Lichtenstein et al. (1990, p. 54), value is the "ratio of quality to price"; and for Monroe (1990, p. 51), "Buyers' perceptions of value represent the balance between the quality or perceived benefits of the product compared to the perceived sacrifice by the payment of the price".

Subsequently, during later stages, the identification of additional dimensions to the concept of hedonic and aesthetic value led to the development of a multidimensional structure of the construct (Babin, Darden & Griffin, 1994; Holbrook, 1994; Sheth, Newman & Gross, 1991) and also at different hierarchical levels of conceptualisation and operationalised from reflective and formative models (Lin, Sher & Shih, 2005; Mathwick, Malhotra & Rigdon, 2001; Ruiz et al., 2008; Sánchez-Fernández & Iniesta-Bonillo, 2009).

Research into the one-dimensionality of the concept of consumer PV, which takes place during the first phase of the development of the construct, explored the quality-price relationship inherent in the concept of value (Dodds & Monroe, 1985). Thus, the PV results from a comparison between the perceived benefits (economic, social and relational) and the perceived sacrifices (price, time, risk, convenience and effort) by the consumer. This cost-benefit perspective – or the trade-off perspective between quality and price resulting from the first approach to the concept of value – was developed by Dodds, Monroe and Grewal (1991, p. 308), who understand PV to be "the cognitive trade-off between perceptions of quality and sacrifice", and also by Zeithaml (1988), for whom the PV results from an overall consumer assessment of the utility of the product (or service) from the perception of what is received and given. From this perspective, consumers behave rationally in order to maximise the utility of their choices (Sánchez-Fernández & Iniesta-Bonillo, 2007).

Some research has focused on the one-dimensional operationalisation of the latent construct (Sweeney, Soutar & Johnson, 1999), whether from a single item (Alves, 2010; Bolton & Drew, 1991; Cronin, Brady & Hult, 2000; Ruiz et al., 2008) or multiple items (Coltman et al., 2008; Sampaio & Saramago, 2016; Teas & Agarwal, 2000; Zauner, Koller & Hatak, 2015) This excessive concentration on the economic utility of value or the sustaining of value perceived only in the economic theory of utility, which is clearly envisioned in Zeithaml's (1988) research, has given rise to a certain amount of discussion and the recognition of the implied limitations of the one-dimensional construct profile (Bolton & Drew, 1991; Lapierre, 2000; Sweeney, Soutar & Johnson, 1999).

At a later stage, the criticism of the simplicity of the one-dimensional model (Sánchez-Fernández & Iniesta-Bonillo, 2009), together with the identification of hedonic and aesthetic aspects underlying the consumption process and the assessment of PV by the consumer of the product and/or service, increased interest in research within the

multidimensional aspect of this concept. Developments in this field have resulted in studies that have highlighted the importance of including the affective or emotional aspects experienced by consumers in the market context – in addition to the cognitive and economic aspects (Dwivedi et al., 2021; Jin, Lee & Lee, 2015; Morgan-Thomas & Veloutsou, 2013; Sanchez et al., 2006) Previous contributions have originated from this phase of the conceptual development of PV (Lin, Sher & Shih, 2005; Mathwick, Malhotra & Rigdon, 2001; Pura, 2005; Ruiz et al., 2008; Sánchez-Fernández & Iniesta-Bonillo, 2006; Sweeney & Soutar, 2001; Wang et al., 2004), which have been conceptually supported by various sources, such as Holbrook (1994), Sheth, Newman and Gross (1991) and Zeithaml (1988).

The PERVAL Scale and Hypothesis

Using a multidimensional approach, Sweeney and Soutar (2001) developed an instrument for measuring consumer perceptions of the value of durable goods before and after purchase. These authors had the objective of understanding how consumers value products and services, namely, their decision-making processes and choice behaviour. This measure of value perception is called the perceived value scale (or the PERVAL scale). When examining the perceptions of individuals in the context of consumption, Sweeney and Soutar (2001) first identified a first-order tetra-factorial structure for PV, namely, functional value (FV), emotional value (EV), social value (SV), and monetary value (or price) (MV). The scale demonstrates that consumers evaluate products, not only in functional and economical terms (FV and MV), but also in terms of product-derived pleasure (EV), and the social consequences of communicating the product with others (SV).

In adapting Sweeney and Soutar's (2001) original version to the context of trade in goods and services, the following definitions are proposed:

- FV regards the utility that results from perceived consumer quality and expected performance and the relationship with the service provider/product;

- EV regards feelings or affective states with the supplier, or the balance between the mental and psychological needs of the consumer and the advantages that emerge from the affective effect caused by the relationship;

- SV regards the prestige underlying a given relationship and the feeling of belonging to a specific group; and

- MV regards the cost or effort underlying the relationship (Monroe, 1990; Sweeney & Soutar, 2001).

The reduced 12-item PERVAL scale (Walsh, Shiu & Hassan, 2014) was used in the context of this study. The 12 items are related to four constructs, dimensions, or latent variables, all of which underlie the abstract and multidimensional concept of value, namely, FV, EV, SV and MV. Figure 1 depicts the reduced PERVAL scale adopted to operationalise the proposed reflective factor model. In this study, the four dimensions of PV, which were originally directed to the research of psychological determinants and antecedents/explanations of consumption options, were adapted to the agricultural context for the evaluation of the multidimensionality of value that the WEs and PCPs ascribe to the relationship with ADX.
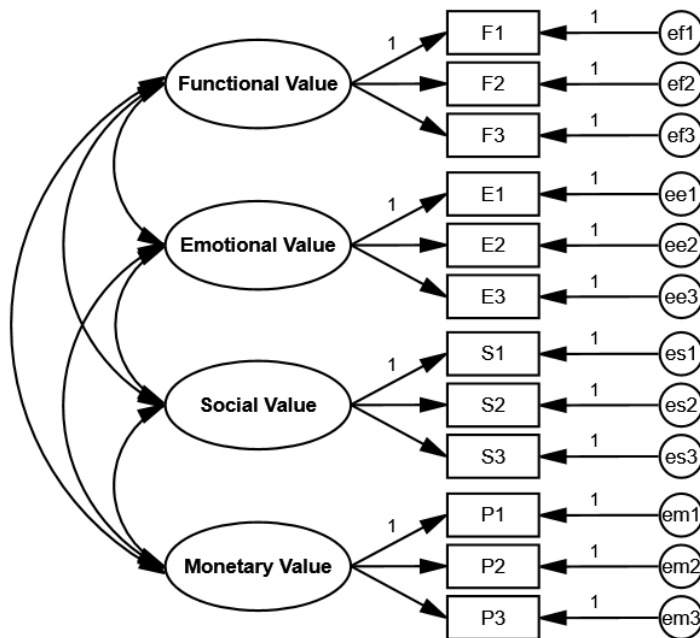
Figure 1: Confirmatory tetra-factorial reflective measurement model: Reduced PERVAL scale
Source: Walsh, Shiu and Hassan (2014), adapted from Sweeney and Soutar (2001)

Table 1 shows the distribution of the 12 items by the four dimensions of PV and also the definition of each item/indicator or manifest variable. These items have been adapted to the context of local communities (after translation and adaptation).

Table 1: Reduced 12-item PERVAL scale: Constructs, items and definitions

Constructs / Dimensions	Item	Definition of the Items/Indicators
Functional Value (FV)	F_1	Working with Xinavane Sugarcane is in accordance with the terms of the agreement
	F_2	Working with Xinavane Sugarcane was well designed
	F_3	The working model with Xinavane Sugarcane is acceptable
Emotional Value (EV)	E_1	Working with Xinavane Sugar is what I like
	E_2	Working with Xinavane Sugarcane makes me want to continue there
	E_3	Working with Xinavane Sugarcane makes me feel good
Social Value (SV)	S_1	Working with Xinavane Sugarcane helps me feel more accepted by other people
	S_2	Working with Xinavane Sugarcane improves the way I am perceived by others
	S_3	Working with Xinavane Sugarcane gives a good opinion in other people
Monetary Value (MV)	P_1	What I get from Xinavane Sugarcane compensates for what I give (time, effort)
	P_2	Working with Xinavane Sugarcane increases benefits over costs
	P_3	Working with Xinavane Sugarcane is good for the price (cost) that I have to bear

Source: Authors' production

This led to the development of the following hypotheses:

- H_1: There are different perceptions of value between the PCP and WE groups in their relationship with ADX.

- H_2: The PCP and WE groups have different perceptions of value because they have different characteristics in their relationship with ADX.

Research Design

Sampling and Questionnaire

In order to investigate how the two relevant groups, namely PCPs and WEs, perceived their relationship with ADX, in the context of agricultural services, a questionnaire was prepared with the reduced PERVAL scale and a 7-point Likert-type response ranging from 1 (strongly disagree) to 7 (strongly agree) with

seven categories, in the 12 items. The questionnaire also included questions about the respondents' profiles, and the characteristics and effects of integration and employment in ADX. The profile also included questions about the respondent, the characteristics and effects of integration and employment at ADX. Of the 447 respondents surveyed, 213 were PCPs who produced on their own land and supplied sugarcane to ADX, and 234 were WEs working on ADX plantations. To ensure the representativeness of each of strata in the final sample, the stratified probabilistic sampling method was adopted.

The PCP strata was characterised by a greater representation of men in relation to women, in the adult age group, but with a significant representation for the elderly. The PCPs were, in general, those without schooling, married, divorced and widowed. The WE strata was characterised by having more young people, mostly men, with a formal education (some with professional and higher education) and mostly single.

The study was carried out in Maputo Province, Mozambique, from February to April 2018, and also in the Manhiça and Magude districts

Descriptive Statistics

The respondents' demographic characteristics regarding gender, age, place of birth, current residence (district), level of education, and marital status are presented in Table 2. The majority of the respondents were male, both for the PCPs (55.9%) and WEs (60.6%), and were aged between 30 and 60 years (67.8% and 69.9% respectively). The percentage of women in the PCPs was 44.1%, which exceeded the percentage of women in the WEs (39.4%). The percentage of participants from the WEs (29.2%) aged 15–29 exceeded the percentage of PCPs in this category (19.8%), and the percentage of PCPs (12.4%) over 60 years exceeded the percentage of WEs in this category.

Regarding their current residence, both the PCPs (87.1%) and WEs (79.7%) were mostly from Maputo province (where ADX operates). However, most of the PCPs lived in the Magude district (94.3%), while the majority of the WEs lived in the Manhiça district (97.5%). Both districts are located in Maputo province.

Regarding their level of education, 5.3% and 3.8% of the PCPs reported having completed basic and secondary education, respectively, in comparison to 17.8% and 5.1% of the WEs; 15.9% of the PCPs had no education, or had never had a formal education, compared to 11.4% of the WEs. No PCPs reported having completed high school, and only 0.5% of them had completed a degree, in comparison to 1.3%, 0.8% and 0.4% of the WEs who had completed vocational high school, a Bachelor's degree, and a Master's degree, respectively.

Regarding their marital status, 68.7% of the PCPS and 67.4% of the WEs reported being married/living together and the percentage of single people in the WEs (24.2%)

exceeded the percentage of PCPs in this category (12.8%), while the percentage of widowers in the PCPs (15.2%) exceeded the percentage of WEs in this category (5.5%).

Table 2: Socio-demographic characteristics of the PCP and WE groups

Characteristics		Petty commodity producers (PCPs)	Wage earners (WEs)
		Percentage	Percentage
Gender	Female	44.1	39.4
	Male	55.9	60.6
Age	15–29	19.8	29.2
	30–60	67.8	69.9
	< 60	12.4	0.8
Naturalness (Province)	Maputo City	3.8	1.7
	Maputo	87.1	79.7
	Gaza	6.7	8.9
	Inhambane	2.4	6.4
	Sofala	0.0	0.4
	Manica	0.0	0.0
	Tete	0.0	0.8
	Zambézia	0.0	0.8
	Nampula	0.0	0.8
	Niassa	0.0	0.0
	Cabo Delgado	0.0	0.0
	Mpumalanga	0.0	0.4
Current residence (District)	Magude	94.3	2.1
	Manhiça	5.7	97.5
	Macia	0	0.4
Level of education	No schooling	15.9	11.4
	Literate	0.0	0.8
	1st Class	2.9	0.8
	2nd class	7.7	0.8
	3rd Class	7.2	3.0
	4th class	11.1	8.1
	5th class	7.7	9.7
	6th Class	8.7	8.5
	7th Class	13.0	15.3
	8th Class	7.2	3.8
	9th Class	5.8	11.0
	10th Class	5.3	17.8
	11th class	3.4	1.3
	12th class	3.8	5.1
	Professional secondary education	0.0	1.3

	Graduation	0.5	0.8
	Master's	0.0	0.4
Marital status	Single	12.8	24.2
	Married	68.7	67.4
	Divorced	3.3	3.0
	Widower	15.2	5.5

Data Analysis

The quantitative assessment of the two groups' perceptions about the value of the relationship with ADX ascribed was carried out based on a confirmatory factor analysis (CFA) and multi-group confirmatory factor analysis (MCFA). It was based on the use of the first order reduced 12-item PERVAL scale proposed by Walsh, Shiu and Hassan (2014) and resulting from an adaptation of the original 24-item version, which was developed by Sweeney and Soutar (2001), and, more recently, replicated in other studies (Sampaio & Saramago, 2016).

CFA is a method used when prior information on the factorial structure needs to be confirmed. This method essentially serves to investigate whether certain latent factors are responsible for the behaviour of certain specific manifest variables, in accordance with a pre-established pattern from another study or theory (Byrne, 2010; Kline, 2011; Schumacker & Lomax, 2004). In this study, CFA was used to evaluate how well the reduced 12-item PERVAL scale was able to reproduce the correlational structure of manifest variables included in the sample under study.

Assessment of the overall suitability of the reduced scale PERVAL for analysing the PCP and WE groups' perceptions was supported using measures of absolute fit, incremental goodness-of-fit measures/indices, and a measure of parsimony (Schumacker & Lomax, 2004), that is, three adjustment measures, namely: (1) the Goodness-of-fit Index (GFI) introduced by Jöreskog and Sörbom (1983); (2) the Root Mean Square Error of Approach (RMSEA) developed by Browne and Cudeck (1993); and (3) the Chi-square test; and three measures/indices of incremental goodness of fit, namely: (1) the Norm Fit Index (NFI) (Bentler & Bonett 1980); (2) the Tucker-Lewis Index (TLI) developed by Tucker and Lewis (1973); and (3) the Comparative Fit Index (CFI) developed by Bentler (1990). Finally, a measure of parsimony, or the value of the Chi-square statistic to be divided by degrees of freedom. The GFI varies between zero (bad adjustment) and one (perfect adjustment) and measures the variance explained by the proposed mode (Barrett, 2007; Brown, 2006; Byrne, 2010; Hair et al., 2014; Kline, 2011; Marôco, 2014).

The RMSEA is a measure of the discrepancy that assesses the magnitude of the precision achieved during the adjustment process of the two matrices: values below 0.05 indicate a good adjustment, although values up to 0.08 still reveal satisfactory adjustments. The NFI measures the improvement obtained in the adjustment when

going from a null model to the proposed model. This index varies between 0 and 1; the closer to the unit, the better the adjustment. The TLI also varies between 0 and the unit, with values close to the desirable unit. The CFI, similar to the NFI and TLI, assumes values greater than 0.90 for good adjustments. The measure of parsimony used considers the degree of simplicity of the model and the number of parameters to be estimated, with values below 3 being desirable, in order to conclude that the model under analysis reproduces well the population variance-covariance matrix.

The evaluation of the local suitability of the reduced PERVAL scale to the perceptions of the both groups was based on procedures related to the evaluation of the validity and reliability of a measurement instrument (Brown, 2006), namely:

- Composite reliability (CR) of constructs is an indicator of the construct's reliability that estimates the internal consistency of the reflective items. Values higher than or equal to 0.7 are indicators of the reliability of the construct.

- Cronbach's alpha (CA) is also a measure to assess the reliability of a construct regarding its internal consistency. Values higher than 0.5 are indicators of adequate internal consistency.

- Factorial validity (λ) is a measurement that assesses whether the specification of the items for a given construct is correct, that is, whether the items reflect the construct being measured. Factorial validity is assessed by the standardised factorial weights (λ) of the items.

- Factorial validity is also assessed by the individual reliability (R^2) of the items, which must be higher than or equal to 0.5 and 0.25, respectively.

- Convergent validity assesses whether the behaviour of reflective items in a construct is explained essentially by that construct. The mean extracted variance (MEV) is an indicator of convergent validity, indicating the amount of variance captured by the construct regarding the amount of variance due to the measurement error (Forner & Larcker, 1981). MEV values higher than 0.5 suggest that the latent variable explains a higher proportion of the variance of the indicators/items/manifest variables than the variance explained by the measurement error component.

- Discriminant validity is a measurement indicator that assesses whether the construct under study is not significantly correlated with the other constructs under analysis. The discriminating validity of the constructs is assessed by comparing the MEVs for each construct with the square of the correlation between the constructs whose discriminating validity is intended to be evaluated.

The evaluation of the quality of the reduced PERVAL scale was estimated using the maximum likelihood estimation method (i.e. a method of estimators which gives the sample the highest probability of being observed). The verification of the assumption of multivariate normality followed the criterion, as suggested by Finney and DiStefano (2006) and Kline (2011), for the characterisation of the deviations of the items in relation to univariate normality, that is, when the items present absolute values of asymmetry below 3 and absolute values of kurtosis below 7, it is considered that there are no severe violations to normality.

The preliminary analysis performed on the data revealed that all the items had absolute values of asymmetry less than 3 and absolute values of kurtosis less than 7, so it was considered that there were no severe violations to the normality sample data. The existence of extreme observations (outliers) was also assessed using the square of the Mahalanobis D^2 distance, and anomalous values were not recorded.

MCFA is a framework approach to structural equation analysis (SEA) which was developed by Jöreskog (1971) to assess to what extent the configuration and parameters of a given psychometric instrument are invariant, or equivalent, for different groups of individuals. The carrying out of MCFA is guided by a hierarchy of complexity which involves two categories, namely: (1) the measurement invariance approach, which includes the configural invariance, metric invariance, scalar invariance and residual invariance; and (2) the structural invariance or population heterogeneity approach, which encompasses the invariance of the (co)variance of the latent variable(s) and the invariance of the latent variable/factor means (Damásio, 2013).

Assuming that not all parameters necessarily have to be tested and that the choice of which parameters to evaluate depends on the research objectives (Schmitt & Kuljanin, 2008), for the purposes of this study only the configural and metric invariance of the means of the latent variable were evaluated.

The configural invariance assesses to what extent the structure of a given instrument is plausible for all groups under analysis. Considering that MCFA is a confirmatory type method of a given previously specified factorial structure, this model evaluates whether it is possible to state that the proposed structure – with the same items being explained by the same variable(s) latent(s) – is maintained for the different groups being evaluated.

The metric invariance investigates to what extent the regression weights of the items (factor loadings) are equivalent in both interest groups. The metric invariance test stipulates that the factor loadings for groups being analysed (Cheung & Rensvold, 1999). If this assumption is verified, then the items have similar relationships with the respective construct and in all groups (Brown, 2006). On the other hand, if this assumption of metric invariance is not verified, then the items do not present similar relationships with the respective construct, that is, at least one of the items of the instrument behaves differently in at least one of the groups. Accordingly, it is important

for the researcher to evaluate which and how many items have differential functioning between groups (Byrne, Shavelson & Muthén, 1989; Sass, 2011).

The latent mean invariance (LMI) test assesses whether or not the different groups present equal means in factor scores. When groups have differences in factor scores, subsequent testing is then necessary to assess specific differences between groups. Thus, any similarities or differences obtained by the LMI test represent real differences between the groups.

In the classical tradition of Jöreskog (1971), the evidence of invariance is based on the Chi-Square difference test (Byrne, 2010). As Chi-Square statistics are sensitive to sample size and different levels of model misspecification, some authors have questioned the use of Chi-Square to test model invariance in large-sized samples and/or very different samples, or even with models with different levels of adjustment quality. Cheung and Rensvold (2002) examined various indices of fit quality and the Monte Carlo simulation, arguing that it may be more reasonable to base invariance decisions on analysis supported by CFI differences rather than Chi-Square (Byrne, 2010). For the purposes of this study the Chi-Square test is used, as it allows, in cases of non-equivalence, the identification of parameters which do not contribute to this invariance.

The comparative analysis of factor means between groups follows Sörbom (1974). This method of estimating the differences in factor means between the two groups provides an estimate of the mean difference for each latent variable in both groups, and also provides a significance test for factor mean differences.

The statistical significance of the difference between two models (restricted and unrestricted) was evaluated from the Chi-Square test and from the analysis of the estimates obtained for the factor means. The existence of differences between the quality of fit of the model with fixed means in both groups and free means for $p < 0.05$ is an indicator of significant differences between group means.

Ethical Considerations

Assuming that this was a study involving human beings, ethical considerations were safeguarded in all phases of the research. Permission was requested from the participants and informants in the research for their prior informed consent to conduct the interview and administration of the questionnaire, with the guarantee of preserving the confidentiality and anonymity of the participants.

The research participants consented to their participation through signed informed consent terms, with clear information about the research objectives and scope of action. The return of data to the participants was guaranteed and carried out through workshops for the presentation and dissemination of research results.

Regarding ethical issues, the participants were observed with the company's authorisation to carry out the work, which was formalised in a written document. Also, the participants' anonymity was guaranteed based on the confidentiality of the information provided and for the purposes of this study.

Results

Global Adjustment of the PERVAL Scale

The PERVAL scale revealed to have a good overall adjustment for both groups: CFI, GFI, TLI, NFI with values higher than 0.95 for PCP and WE group (see Table 3). All items had absolute asymmetry values below 3, and absolute kurtosis values below 7 (as proposed by Kline, 2005 and Finner & DeStefano, 2006). Therefore, it was considered that no severe violations of normality were present in both groups. The existence of outliers was assessed using the Mahalanobis D^2 distance, with no abnormal values being recorded.

Table 3: Reduced PERVAL scale adjustment quality statistics

Group	X^2	X^2/df	*p*-value	CFI	GFI	RMSEA	TLI	NFI
PCP	79.948	1.666	0.003	0.983	0.943	0.056	0.977	0.959
WE	60.825	1.267	0.101	0.986	0.959	0.034	0.981	0.938

Notes:

PCP – petty commodity producers group

WE – wage earners group

Source: Authors' production

Local Adjustment of PERVAL Scale

Table 4 describes the standardised regression weights and psychometric properties of the reduced PERVAL scale when applied to both groups. The evaluation measures obtained for composite reliability (CR) was adequate, with high values (over 0.7) for all four constructs of the model when adjusted to the PCP group (FV = 0.787; EV = 0.819; SV = 0.919; and MV = 0.939). Regarding major obtain for CR for the WE group, with the exception of CR (0.634), was satisfactory (EV = 0.747; SV = 0.780; and MV = 0.828).

The high values (greater than 0.7) obtained for all Cronbach's alphas (CA) also indicated the existence of high internal factor consistency for the adjustment performed with the PCP group (FV = 0.786; EV = 0.794; SV = 0.919; and MV = 0.938). For the WE group, only the FV failed to indicate a high internal factor consistency (FV = 0.625; EV = 0.739; SV = 0.778; and MV = 0.823).

The results obtained for the individual factorial validity of the items for the PCP group indicated that the items were significantly related to the respective constructs (p-values < 0.001), as all had factor weights (λ) were greater than 0.5, with only two items (F_2, E_2) not revealing factor weights above 0.7. In the case of the WE group, the results confirmed the individual factorial validity of all items except one (F_2) with a factor weight of less than 0.5. The remaining items had factor weights above 0.5, with only four (F_1, E_2, S_3, P_2) failing to reveal factor weights above 0.7.

Factorial validity is also demonstrated by the individual reliability (R^2) that is appropriate when the items are equal to, or greater than 0.25. The results showed that all the items had values greater than 0.25 for the PCP group. The same was true for the WE group, with the exception of one item (F_2), which presented a value less than 0.25.

Comparing the results obtained for the standardised factor weights and CA for both groups with the results obtained from the Sweeney and Soutar (2001) (19 items) and Walsh, Shiu and Hassan (2014) (12 items) studies, showed that, in general, significant differences existed. In fact, for certain items (E_3, S_1, S_2, S_3, P_1, P_2, P_3), the PCP group presented values higher than the factor weights obtained with the original scale (19 items). Furthermore, the items S_3 and P_2 also presented values for standardised factor weights which were higher than the corresponding values obtained with the reduced PERVAL scale (Walsh, Shiu and Hassan, 2014). In relation to the WE group, the standardised factor weights obtained with the original scale presented values which were higher than 0.7 in three items (E_3, S_1, S_2). Differences are attenuated when comparisons are made with the reduced PERVAL scale. The values obtained for CAs did not differ significantly from those found by Sweeney and Soutar (2001) and Walsh, Shiu and Hassan (2014), except for SV in the PCP group (0.91 versus 0.80 and 0.81, respectively) and MV (0.93 versus 0.87 and 0.88, respectively).

Table 4: Standardised regression weights and psychometric properties of the reduced PERVAL scale in the PCP and WE groups

Construct / Item	Cronbach's alpha* (CA)		Standardised regression weights* (λ)		Individual reliability (R^2)		Means extracted variance (MEV)		Composite reliability (CR)	
	PCP	WE	PCP	WE	PCP	WE	PCP	WE	PCP	WE
Functional	0.786	0.625					0.561	0.390	0.787	0.634
	(0.93; 0.92)									
F_1			0.725	0.691	0.525625	0.477481				
			(0.86; 0.98)							
F_2			0.569	0.320	0.323761	0.1024				
			(0.74; -)							
F_3			0.913	0.769	0.83	0.591				

					3569	361				
			(0.92; 0.96)							
Emotional	0.794	0.739					0.614	0.501	0.819	0.747
	(0.93;0.92)									
E_1			0.817	0.710	0.667489	0.5041				
			(0.91; 0.89)							
E_2			0.524	0.561	0.274576	0.314721				
			(0.94; 0.97)							
E_3			0.948	0.828	0.898704	0.685584				
			(0.79; −)							
Social	0.919	0.778					0.791	0.544	0.919	0.780
	(0.80; 0.81)									
S_1			0.865	0.805	0.748225	0.648025				
			(0.73; 0.89)							
S_2			0.925	0.770	0.855625	0.5929				
			(0.71; 0.95)							
S_3			0.877	0.626	0.769129	0.391876				
			(0.84; 0.85)							
Monetary	0.938	0,823					0.836	0.618	0.939	0.828
	(0.87;0.88)									
P_1			0.905	0.872	.0819025	0.760384				
			(0.88; 0.97)							
P_2			0.933	0.680	0.870489	0.4624				
			(0.75; 0.88)							
P_3			0.905	0.795	0.819025	0.632025				
			(0.87; 0.97)							

Notes:

PCP = petty commodity producers group

WE = wage earners group

* Values in parentheses refer to the magnitudes of CA and standardised factor weights obtained with the original 19-item scale (Sweeney and Soutar, 2001) and then with the reduced 12-item scale (Walsh, Shiu and Hassan, 2014).

Source: Authors' production

The convergent validity, or the magnitude of the factor's explanatory capacity in relation to the reflected item, according to the criterion of Fornell and Larcker (1981), that is to say, the values for mean variance extracted (MEV) greater than or equal to 0.5 ensure factorial convergence for the PCP group were: FV = 0.561, EV = 0.614, SV = 0.791, MV = 0.836. For the WE group, with the exception of FV, which presented values below 0.5 (FV = 0.390), the remaining factors presented an MEV greater than 0.5: EV = 0.501, SV = 0.544 and MV = 0.618. Thus, as all MEV values for the WE group were always greater than 0.5, the convergent validity was validated. For the PCP group, convergent validity was only valid for the EV, SV and MV.

In the PCP group, with the exception of MEV values for FE and EV, which were obtained with values below the square of correlations between factors ($r^2_{functional/emotional}$ = 0.81), all other factors presented MEV values higher than the squares of the respective correlations between factors: $r^2_{functional/monetary}$ = 0.423; $r^2_{functional/social}$ = 0.109; $r^2_{emotional/monetary}$ = 0.449; $r^2_{emotional/social}$ = 0.185, and $r^2_{social/monetary}$ = 0.203. In the WE group, with the exception of the MEV associated with the FV and EV factors, which was obtained with a value below the square of the correlations between the factors ($r^2_{functional/emotional}$ = 0.689), all other factors presented an MEV above the square of the correlations between the factors: $r^2_{functional/monetary}$ = 0.168; $r^2_{functional/social}$ = 0.09; $r^2_{emotional/monetary}$ = 0.144; $r^2_{emotional/social}$ = 0.25, and $r^2_{social/monetary}$ = 0.26. The squares of the correlations between the FV and EV had no discriminant validity for both groups, which thus presents a partial discriminant validity.

Configural Invariance Evaluation

According to the adjustment indices (X^2/gl = 1.468, CFI = 0.984, RMSEA = 0.032, p = 0.002) the model simultaneously presents a good adjustment for the PCP and WE groups, revealing the existence of configural invariance of the PERVAL scale when applied to both groups.

Metric Invariance Evaluation

To evaluate the metric invariance, or the factor, loadings between the measurement models of the PCP and WE groups were used the test of the differences between the Chi-square statistics values and the strategy of the differences between adjustment, that is, ΔCFI. The results showed that the factor loadings differed significantly between the groups, or that there was no metric invariance between the PCPs and WEs ($\Delta X^2_{(\Delta gl = 8)}$ = 43,553; ΔCFI=0.013). Indeed, the rejection of the metric invariance between the two models is supported by the fact that the value of the test statistic of 43.553, with 8 degrees of freedom, was greater than the critical value of 20.09, for a significance level of 1%.

According to the literature (Brown, 2006; Byrne, 2010), the evaluation of the equality between latent means is conditioned by the verification of the configural invariance and metric invariance between the models under study. However, certain authors (Byrne,

2010; Byrne, Shavelson & Muthén, 1989; Sass, 2011) report that it is possible to proceed with the analysis by finding out which items act differently. Adopting this perspective, it was decided that the evaluation of the latent means would be performed, that is to say, whether they presented identical values between the groups, or not. If differences between factors means were identified, then the next objective would be to identify factors which did not operate equivalently between both groups.

Latent Means Evaluation

For the latent means evaluation, the WE group was designated as the reference group, and therefore their factors means were set to zero. The latent means estimates reported for the PCP group represented the differences in latent means between both groups. Table 5 presents the results for the latent means estimates between the PCP and WE groups.

Table 5: Estimated parameters for latent means between the PCP and WE groups

	Estimate	**Standard error (SE)**	**Critical ratio (CR)**	**Probability value (P)**
Functional value (FV)	–0.57	0.135	–4.211	***
Emotional value (EV)	–0.33	0.116	–2.817	0.005
Social value (SV)	–0.43	0.120	–3.616	***
Monetary value (MV)	0.02	0.189	0.118	0.906

Source: Authors' production

Table 5 shows that the mean FV was estimated at 0.57; the mean EV at 0.33; the mean SV at 0.43; and the estimated mean MV at 0.02. Therefore, the FV, EV and SV were found to be statistically significant ($p < 0.001$). The MV was not significantly different between the PCP and WE groups; thus, it can be concluded that the groups differed in the means of the FV, EV and SV constructs, and did not differ in the dimension associated with the MV.

Discussion

The study found the existence of perceptual differences between the PCP and WE groups in the FV, EV and SV. The study also found equivalence between the two groups in their perception of the MV. The findings of the study explain how the characteristics of the groups differ in some aspects and are similar in others. The PCPs are both commodity producers and WEs in their own fields of production. The WEs only employ their workforce, from which they guarantee their subsistence. The PCPs are small-scale, generally family-owned producers, who

are engaged in the production of commodities (sugarcane) for sale to ADX. These producers combine the capital and labour class places, that is to say, according to the conceptualisation of Bernstein (1994), they are capitalists and workers at the same time. They are capitalists because they own, or have access to means of production (e.g. land), and they are workers, because they use their own labour to produce sugarcane, unlike capitalist companies such as ADX, which employ the labour force of others.

This combined condition of capital and labour in the PCPs is confirmed when the relations and processes of capitalist commodity production become the conditions of the existence of family producers and are internalised in their organisation and activities. In this way, the PCPs appear to have partnerships with ADX and they thus attribute an ideological image to themselves which separates them from the WEs as an ADX working class.

To paraphrase the words of Amin (1977), the PCP and WE believe they have divergent interests from the WE which improves their situation, and appearances give them reason, because in functional terms, they appear to perform the same functions as ADX, which gives them the feeling of behaving like a landlord or capitalist entrepreneur (EV = 0.33), and consequently they seen to be people free from the exploitation of capital – ADX (SV = 0.43). These conditions seem to justify the differences found in the level of perceptions between the two groups of individuals, more specifically, for the dimensions associated with the FV, EV and SV.

On the other hand, this relationship between the PCPs and ADX implies that the PCPs are subject to the rules of capitalist competition/competition (between the PCPs themselves). Therefore, the PCPs have to reproduce both their means of production (as capitalists) and their work (as workers) in circumstances of greater, or less risk or opportunity, depending on the conditions of access to the main resources (land, credit), markets (terms of trade), nature (climate, water), government policies, and access to public goods (infrastructure). Reproduction as capital leads to the maintenance, replacement, and eventual expansion of the means of production, that is, accumulation (expanded reproduction). Reproduction as work leads to daily (subsistence/consumption) and generational reproduction, without the structural requirement or economic necessity needed to make a profit (simple reproduction).

Therefore, when the PCPs are unable to reproduce as capital (accumulation) alone fails to satisfy the requirements of simple reproduction with regard to daily consumption or livelihoods, the PCPs become semi-WEs or home-based workers (Amin 1977; Bernstein, 2004; 2010). Indeed, as owners of land, the remuneration of the semi-WEs (often) does not include remuneration of their capital, but is rather reduced to a remuneration of labour, which is often lower than the value of the labour force.

With this status, the PCPs retain the appearance of a free market producer (as they possess the means of production), although they also have the appearance of a labour

worker which is submitted to, and exploited by the dominant capital (ADX). Therefore, the PCPs and WEs are united by the exploitation to which both are subjected (i.e. obtaining a salary below the value of the workforce).

Accordingly, the results obtained for the investigation of latent means differences confirmed the convergence point between the PCPs and WEs for the MV dimension, whereas, in the case of the PCPs, the income obtained is present in the form of a disguised wage which they are paid as homeworkers.

Finally, another reason for the results found for the comparisons made at the latent means level is related to the respondents' demographic characteristics. Most of the PCPs were women, without education, elderly, widows, born in the place where ADX is located with few subsistence alternatives. These characteristics probably limit the PCPs to reproduction as a capital class. This leads to partial acceptance of the first and the second hypotheses, because despite the differences in perceptions of FV, EV and SV, the PCPs and WEs perceive in an equivalent way the relationship with ADX in the monetary dimension. The differences and equivalences are thus verified justify largely due to the PCPs' particular characteristics.

Conclusions, Theoretical and Managerial Implications

Although the concept of PV is a term that originated in the context of the consumption of goods or services, it was suitable for the context of an agricultural service provision relationship – the study of the relationship in the context of an agribusiness production sugarcane and sugar. From this perspective, the study sought to evaluate the invariance in perceptions which PCPs and WEs have of the multidimensional relationship with ADX.

From the results of this study, it can be concluded that the cognitive or economic aspects, in utilitarian terms of a relationship constitute preponderant aspects for the context of agricultural service provision, particularly with regard the aggregate utility of the relationship derived from the monetary benefit. It is also concluded that the utility derived from feelings or affective states of a relationship depends on the monetary benefits which this relationship generates by the relationship. In turn, the technical benefits derived from a relationship depend on the associate emotional utility of that relationship.

Researching the relevance of the different perceptions for relational value creation, can be a crucial business tool for both groups, especially when it comes to the heterogeneous agrarian classes. The judgment of how these groups perceive the benefits and sacrifices that arise from their relationship with ADX could be decisive for their decision to continue their relationship with the company, or, conversely, for their decision to seek better forms of claiming their relationship with ADX.

For ADX, the discovery of the dimensions that reflect the perceptions of PCPs and WEs in terms of value, which arise from their relationship with the company, can increase the knowledge of the different patterns of value that the company generates in its relationship with the "production partner" companies (PCPs and WEs), and how they act on them in order to improve their image.

Limitations and Future Research Guidelines

While this study offers some contributions and practical implications, several limitations should be taken into account when conducting future research. In this study, the PCPs and WEs were not broken down into different profile, according to the type and modalities of integration in the relationship with the agribusiness. Accordingly, future research should consider the perceptions of value in WEs according to gender, age and level of education in assessing the perceptions of value to study the influence of these variables on different dimensions of value.

There were some discrepancies regarding the quality of the psychometric properties of the reduced PERVAL scale in both groups. Further research is required, using new samples of WEs that have links with ADX.

Acknowledgements

References

Ali, R., & Muianga, C. (2016). Emprego e condições sociais de trabalho nas agro-indústrias: contradições e desafios. In L. Brito, C. Castel-Branco, S. Chichava, S. Forquilha, & A. Francisco (Eds.), *Desafios para Moçambique 2016* (pp. 255–267). Maputo: IESE.

Alves, H. B. (2010). The measurement of perceived value in higher education: A unidimensional approach. *Service Industries Journal, 31*(12), 1943–1960. https://doi.org/10.1080/02642069.2011.550042

Amin, S. (1977). *O imperialismo e o desenvolvimento desigual*. Lisbon: Biblioteca Ulmeiro.

Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. *Journal of Consumer Research*, *20*(4), 644–657. https://doi.org/10.1086/209376

Baltasar, J. A. D. S. (2017). *Rumo ao hinterland: A evolução social dos prazos do Vale do Zambeze (séculos XVII e XVIII). Universidade Nova de Lisboa. Dissertação de Mestrado em História do Império Português.*

Barrett, P. (2007). Structural equation modelling: Judging model fit. *Personality and Individual Differences, 42*(5), 815–824. https://doi.org/10.1016/j.paid.2006.09.018

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107*(2), 238–246. https://doi.org/10.1037/0033-2909.107.2.238

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*(3), 588–606. https://doi.org/10.1037/0033-2909.88.3.588

Bernstein, H. (1994). Agrarian classes in capitalist development. In L. Sklair (Ed.), *Capitalism and development* (pp. 40–71), London and New York: Routledge. https://doi.org/10.4324/9780203201961_chapter_3

Bernstein, H. (2004). Considering Africa's agrarian questions. *Historical Materialism*, *12*(4), 155–144. https://doi.org/10.1163/1569206043505158

Bernstein, H. (2010). *Class dynamics of agrarian change*. London: Kumarian Press.

Bolton, R. N., & Drew, J. H. (1991). A longitudinal analysis of the impact of service changes on customer attitudes. *Journal of Marketing, 55*(1), 1–10. https://doi.org/10.2307/1252199

Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. New York: The Guilford Press.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Newbury Park: SAGE.

Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (2nd ed.). New York: Routledge Taylor & Francis.

Byrne, B. M., Shavelson, R. J., & Muthén, B. (1989). Testing for the equivalence of factor covariance and mean structures: The issue of partial measurement invariance. *Psychological Bulletin*, *105*(3), 456–466. https://doi.org/10.1037/0033-2909.105.3.456

Carvache-Franco, M., Perez-Orozco, A., Carvache-Franco, O., Víquez-Paniagua, A. G., & Carvache-Franco, W. (2020). The perceived value in ecotourism related to satisfaction and loyalty: A study from Costa Rica. *Geographica Pannonica, 24*(3), 229–243. https://doi.org/10.5937/gp24-25082

Cheung, G. W., & Rensvold, R. B. (1999). Testing factorial invariance across groups: A reconceputalization and proposed new model. *Journal of Management*, *25*(1), 1–27. https://doi.org/10.1177/014920639902500101

Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling, 9*(2), 233–255. https://doi.org/10.1207/S15328007SEM0902_5

Coltman, T., Devinney, T. M., Midgley, D. F., & Venaik, S. (2008). Formative versus reflective measurement models: Two applications of formative measurement. *Journal of Business Research*, *61*(12), 1250–1262. https://doi.org/10.1016/j.jbusres.2008.01.013

Cronin Jr, J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing, 76*(2), 193–218. https://doi.org/10.1016/S0022-4359(00)00028-2

Currás-Pérez, R., Dolz-Dolz, C., Miquel-Romero, M. J., & Sánchez-García, I. (2018). How social, environmental, and economic CSR affects consumer-perceived value: Does perceived consumer effectiveness make a difference? *Corporate Social Responsibility and Environmental Management, 25*(5), 733–747. https://doi.org/10.1002/csr.1490

Damásio, B. F. (2013). Contribuições da análise fatorial confirmatória multigrupo (AFCMG) na avaliação de invariância de instrumentos psicométricos. Psico-USF, Bragança Paulista, 18(2), 211–220. https://doi.org/10.1590/S1413-82712013000200005

Dastane, O., Goi, C. L., & Rabbanee, F. (2020). A synthesis of constructs for modelling consumers' perception of value from mobile-commerce (M-VAL). *Journal of Retailing and Consumer Services*, *55*, 102074. https://doi.org/10.1016/j.jretconser.2020.102074

Dodds, W. B., & Monroe, K. B. (1985). The effect of brand and price information on subjective product evaluations. In E. C. Hirschtman & M. B. Holbrook (Eds.), *Advances in consumer research* (pp. 85–90). Provo: Association for Consumer Research.

Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand and store information on buyers' product evaluations. *Journal of Marketing Research, 28*(8), 307–319. https://doi.org/10.1177/002224379102800305

Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kefi, H., Krishen, A S., et al. (2021). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management, 59*, a102168. https://doi.org/10.1016/j.ijinfomgt.2020.102168

Finney, S. J., & DiStefano, C. (2006). Non-normal and categorical data in structural equation modelling. In G. R. Hancock & R. O. Mueller (Eds.), *Structural equation modeling: A second course* (pp. 269–314). Greenwich: Information Age.

Friedmann, H. (1993). The political economy of food: A global crisis. *New Left Review, 197*, 29–57.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50. https://doi.org/10.1177/002224378101800104

Grosh, B. (1994). Contract farming in Africa: An application of the new institutional economics. *Journal of African Economies, 3*(2), 231–261. https://doi.org/10.1093/oxfordjournals.jae.a036805

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis* (7th ed.). Upper Saddle River: Pearson Education.

Head, J. (1980). *A Sena Sugar States e a mão-de-obra migratória. Estudos Moçambicanos, 1*, 53–72.

Holbrook, M. (1994). The nature of customer value: an axiology of services in the consumption experience. In R. T. Rust & R. L. Oliver (Eds.), *Service quality: New directions in theory and practice* (pp. 21–71). Thousand Oaks: SAGE. https://doi.org/10.4135/9781452229102.n2

Jin, N., Lee, S., & Lee, H. (2015). The effect of experience quality on perceived value, satisfaction, image and behavioral intention of water park patrons: New versus repeat visitors. *International Journal of Tourism Research, 17*(1), 82–95. https://doi.org/10.1002/jtr.1968

Jöreskog, K. G. (1971). Simultaneous factor analysis in several populations. *Psychometrika, 36*(4), 409–426. https://doi.org/10.1007/BF02291366

Jöreskog, K. G., & Sörbom, D. (1983). *LISREL: Analysis of linear structural relationships by the method of maximum likelihood, user's guide, versions V and VI*. Chicago: Scientific Software.

Key, N., & Runsten, D. (1999). Contract farming, smallholders and rural development in Latin America: The organization of agroprocessing firms and the scale of outgrower production. *World Development, 27*(2), 381–402. https://doi.org/10.1016/S0305-750X(98)00144-2

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York: Guilford Press.

Kunkel, T., Doyle, J. P., & Berlin, A. (2017). Consumers' perceived value of sport team games – a multidimensional approach. *Journal of Sport Management, 31*(1), 80–95. https://doi.org/10.1123/jsm.2016-0044

Lapierre, J. (2000). Customer-perceived value in industrial contexts. *Journal of Business and Industrial Marketing, 15*(2/3), 122–140. https://doi.org/10.1108/08858620010316831

Lazzarini, A. H. (2016). Gendered labour, migratory labour: Reforming sugar regimes in Xinavane, Mozambique. *Journal of Southern African Studies, 43*(3), 605–623. https://doi.org/10.1080/03057070.2016.1197695

Lin, C-H., Sher, P. J. & Shih, H-Y. (2005). Past progress and future directions in conceptualizing customer perceived value. *International Journal of Service Industrial Management, 16*(4), 318–336. https://doi.org/10.1108/09564230510613988

Little, P. D. & Watts, M. J. (Eds.). (1994). *Living under contract: Contract farming and agrarian transformation in Sub-Saharan Africa*. Madison: University of Wisconsin Press.

Marôco, J. (2014). *Análise de equações estruturais: fundamentos teóricos, software & aplicações* (2nd ed.). Lisbon: Pêro Pinheiro.

Mathwick, C., Malhotra, N., & Rigdon, E. (2001). Experiential value: Conceptualization, measurement and application in the catalog and internet shopping environment. *Journal of Retailing, 77*(1), 39–56. https://doi.org/10.1016/S0022-4359(00)00045-2

Monroe, K. B. (1990). *Pricing: Making profitable decisions* (2nd ed.). New York: McGraw-Hill.

Morgan-Thomas, A., & Veloutsou, C. (2013). Beyond technology acceptance: Brand relationships and online brand experience. *Journal of Business Research, 66*(1), 21–27. https://doi.org/10.1016/j.jbusres.2011.07.019

Mosca, J. (2005). *Economia de Moçambique, Século XX*. Lisbon: Institut Piaget.

O'Laughlin, B. (2016). Consuming bodies: Health and work in the cane fields in Xinavane, Mozambique. *Journal of Southern African Studies, 43*(3), 625–641. https://doi.org/10.1080/03057070.2016.1190519

O'Laughlin, B., & Ibraimo, Y. (2013). *A expansão da produção de açúcar e o bem-estar dos trabalhadores agrícolas e comunidades rurais em Xinavane e Magude*. *Cadernos IESE* 12.

Oya, C. (2012). Contract farming in Sub-Saharan Africa: A survey of approaches, debates and issues. *Journal of Agrarian Change, 12*(1), 1–33. https://doi.org/10.1111/j.1471-0366.2011.00337.x

Potra, S., Pugna, A., Negrea, R., & Izvercian, M. (2018). Customer perspective of value for innovative products and services. *Procedia-Social and Behavioral Sciences, 238*, 207–213. https://doi.org/10.1016/j.sbspro.2018.03.025

Pura, M. (2005). Linking perceived value and loyalty in location-based mobile services. *Managing Service Quality, 15*(6), 509–538. https://doi.org/10.1108/09604520510634005

Raynolds, L. T. (2000). Negotiating contract farming in the Dominican Republic. *Human Organization, 59*(4), 441–451. https://doi.org/10.17730/humo.59.4.464j7g347ru3jp15

Ruiz, D. M., Gremler, D. D., Washburn, J. H., & Carrin, G. C. (2008). Service value revisited: Specifying a higher-order, formative measure. *Journal of Business Research, 61*, 1278–1291. https://doi.org/10.1016/j.jbusres.2008.01.015

Sampaio, A., & Saramago, J. (2016). Customer loyalty toward grocery retailing service: A multidimensional approach to costumer perceived value. *European Journal of Applied Business Management, 2*(2), 96–114.

Sánchez-Fernández, R., & Iniesta-Bonillo, M. A. (2006). Consumer perception of value: Literature review and a new conceptual framework. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behavior, 19*, 40–58.

Sánchez-Fernandez, R., & Iniesta-Bonillo, M. A. (2007). The concept of perceived value: a systematic review of the research. *Marketing Theory, 7*(4), 427–451. https://doi.org/10.1177/1470593107083165

Sánchez-Fernandez, R., & Iniesta-Bonillo, M. A. (2009). Efficiency and quality as economic dimensions of perceived value: Conceptualization, measurement, and effect on satisfaction. *Journal of Retailing and Consumer Services, 16*(6), 425–433. https://doi.org/10.1016/j.jretconser.2009.06.003

Sanchez, J., Callarisa, L., Rodriguez, R. M., & Moliner, M. A. (2006). Perceived value of the purchase of a tourism product. *Tourism management, 27*(3), 394–409. https://doi.org/10.1016/j.tourman.2004.11.007

Sass, D. A. (2011). Testing measurement invariance and comparing latent factor means within a confirmatory factor analysis framework. *Journal of Psychoeducational Assessment, 29*(4), 347–363. https://doi.org/10.1177/0734282911406661

Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to Structural Equation Modeling* (2nd ed.). Mahwah: Lawrence Erlbaum. https://doi.org/10.4324/9781410610904

Serra, C. (1980). O capitalismo colonial na Zambézia 1855–1930. *Estudos Moçambicanos, 1*, 33–52.

Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. *Journal of Business Research, 22*, 159–170. https://doi.org/10.1016/0148-2963(91)90050-8

Sörbom, D. (1974). A general method for studying differences in factor means and factor structures between groups. *British Journal of Mathematical and Statistical Psychology,* 27, 229–239. https://doi.org/10.1111/j.2044-8317.1974.tb00543.x

Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing, 77*(2), 203–220. https://doi.org/10.1016/S0022-4359(01)00041-9

Sweeney, J. C., Soutar, G. N., & Johnson, L. W. (1999). The role of perceived risk in the quality-value relationship: A study in a retail environment. *Journal of Retailing, 75*, 77–105. https://doi.org/10.1016/S0022-4359(99)80005-0

Teas, R. K., & Agarwal, S. (2000). The effects of extrinsic product cues on consumers' perceptions of quality, sacrifice, and value. *Journal of the Academy of Marketing Science, 28*, 278–290. https://doi.org/10.1177/0092070300282008

Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika, 38*(1), 1–10. https://doi.org/10.1007/BF02291170

Walsh, G., Shiu, E., & Hassan, L. M. (2014). Replicating, validating, and reducing the length of the consumer perceived value scale. *Journal of Business Research, 67*(3), 260–267. https://doi.org/10.1016/j.jbusres.2013.05.012

Wang, Y., Lo, H. P., Chi, R. & Yang, Y. (2004). An integrated framework for customer value and customer relationship management performance: A customer based perspective from China. *Managing Service Quality, 14,* 169–182. https://doi.org/10.1108/09604520410528590

Wilson, J. (1986). The political economy of contract farming. *Review of Radical Political Economics, 18*, 47–70. https://doi.org/10.1177/048661348601800403

Zauner, A., Koller, M., & Hatak, I. (2015). Customer perceived value – Conceptualization and avenues for further research. *Cogent Psychology, (2)*, 1–17. https://doi.org/10.1080/23311908.2015.1061782

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing, 52*, 2–22. https://doi.org/10.1177/002224298805200302