

# Effects of customer characteristics and service quality on share of wallet in neighbourhood shops based on an asymmetric approach

Share of  
wallet in  
neighbourhood  
shops

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## Abstract

**Purpose** – The purpose of this paper is to increase the understanding of customer share of wallet (SoW) based on research in customer characteristics and the retail service quality model. Specifically, this study adopts an asymmetrical modelling approach to provide insights into the necessary and sufficient conditions leading to increased customer SoW in the context of neighbourhood shops in Southern Africa.

**Design/methodology/approach** – This study uses fuzzy-set qualitative comparative analysis to analyse survey data collected from 523 current customers of the shops.

**Findings** – This study reveals that large household size and low income are necessary conditions for increased SoW. It also reveals five unique customer profiles, or casual recipes, associated with increased customer SoW. More generally, this study demonstrates that service quality constituents (personal interaction, reliability, policy and physical aspects of the shop) and customer characteristics, namely, relationship duration, household size, gender and income-level act in combination to lead to customer SoW.

**Originality/value** – This study illustrates how service quality constituents and customer characteristics compete and/or complement each other in relation to increased customer SoW. To the best of the author's knowledge, this is the first study to provide evidence on the necessary conditions for increased SoW, especially in the neighbourhood shop context of a developing economy. Value-wise, this paper provides a more nuanced perspective to understanding how unique customer profiles are associated with increased SoW.

**Keywords** Customer share of wallet, fsQCA, Less-organised retail segment, Retail service quality model, Spaza shop

**Paper type** Research paper

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## 1. Introduction

Several scholars –including [Azeem et al. \(2018\)](#), [Buoye et al. \(2016\)](#) and [Keiningham et al. \(2007, 2011\)](#) – believe that growing customer share of wallet (SoW) is a central priority for firms nowadays and especially for retailers. It is also believed that marketing effort spent in growing existing customers' SoW is more effective, in addition to being less costly, than investments in new customer acquisition ([Azeem et al., 2018](#)). Accordingly, the understanding of customer SoW, particularly pertaining to its sets of antecedent factors, is a key concern for businesses including micro-retailers who typically are the most dominant in emerging and developing economies. Based on previous research ([Du et al., 2007](#)), this study defines SoW as the percentage of purchased items made by the customer in a specific retail shop, typically within a month.

Because of the importance of this topic, it is not surprising that it continues to receive considerable attention in marketing and business research ([Buoye, 2016](#); [Harrison-Walker, 2019](#); [Kim and Lee, 2010](#); [Magi, 2003](#); [Ramaseshan and Ouschan, 2017](#); [Shaikh et al., 2018](#)). In spite of the importance of the above studies, a common limitation of these studies is that none of them took account of the fact that distinct sets of antecedent conditions can concurrently lead to customer SoW, especially as they relied exclusively on symmetric methods like regression and structural equation modelling to provide evidence on net effects alone (see also [Azeem et al., 2018](#); [Babakus and Yavas, 2008](#); [Kim and Lee, 2010](#); [Kong and Maute, 2010](#)). Accordingly, there is a research gap concerning how antecedent conditions potentially combine to form causal recipes in relation to increased customer SoW. This further reflects that there is currently limited understanding about the causal recipes leading to customer SoW. In this regard, research on this topic that goes beyond the exploration of the main effect, or more technically net effect assumption, and that examines the combinatory conditions that can help explain customer SoW is most needed. Moreover, whether there are necessary conditions that may be associated with increased customer SoW remains largely unknown in this research stream. In addition, to the best of the author's knowledge, there has been no research to date that examines customer SoW within the context of neighbourhood shops (otherwise referred to as spaza shops in Southern Africa – the milieu of the present study). This is in spite of the persistence and high prevalence of these shops in Africa and the rest of the developing world. (By neighbourhood, or spaza, shops, this work simply refers to less-organised retail stores or informal retail merchants.)

To address these gaps in research, this article adopts an asymmetric approach or what is also referred to as complexity theory ([Gil-Barragan et al., 2020](#); [Kopplin and Rosch, 2021](#); [Latif, 2021](#); [Miranda et al., 2018](#); [Olya et al., 2019](#); [Prentice and Loureiro, 2017](#); [Woodside, 2013](#)) and which permits the use of fuzzy-set qualitative comparative analysis (fsQCA; [Ragin, 2008](#)) to examine the necessary and/or sufficient conditions for increased customer SoW in the neighbourhood shop. The use of this approach is highly encouraged by eminent scholars such as [Fiss \(2011\)](#), [Ragin \(2008\)](#) and [Woodside \(2013\)](#), especially considering the reality that multiple antecedent factors, present or non-present, can combine to influence an outcome condition like SoW, which is a complex phenomenon to understand than even related firm outcomes like store loyalty ([Keiningham et al., 2011](#)). Accordingly, this research also responds to the increasing calls from the marketing and business research for studies to use an asymmetric modelling approach through fsQCA to provide a more nuanced and balanced perspective into this research issue ([Gonçalves et al., 2016](#); [Kopplin and Rosch, 2021](#); [Latif, 2021](#); [Olya et al., 2019](#); [Woodside, 2013](#)). Moreover, the application of an asymmetric approach via fsQCA is novel in customer SoW research, especially as previous research, to the author's knowledge, has been exclusively based on the estimation of the net effect of each predictor variable independent of others, or, at best, research examination on

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the interactive effect of two exogenous factors on customer SoW (for details, cf. [Kim and Lee, 2010](#); [Kong and Maute, 2010](#); [Magi, 2003](#); [Shaikh et al., 2018](#)).

Importantly, given that the retail service quality model (RSQM) is a well-established metric for gauging customers' service quality perceptions of the retail store ([Dabholkar et al., 1996, 2000](#); [Vázquez et al., 2001](#)) as well as the neighbourhood shop in a developing economy ([Osakwe, 2019](#)) and in relation to desirable outcomes such as loyalty ([Martinelli and Balboni, 2012](#)), the present study seeks to first examine whether the underlying dimensions of RSQM, namely, reliability, physical aspects, personal interaction and policy of the shop are necessary conditions leading to the desirable outcome of increased customer SoW in the neighbourhood shop. Similarly, given that customer characteristics such as gender, relationship duration, income and household size have been previously proposed in the literature ([Azeem et al., 2018](#); [Buoye, 2016](#); [Shaikh et al., 2018](#)) to play an essential role in customer SoW, the study wanted to understand also if any of them may be a necessary condition for predicting the desirable outcome of increased customer SoW in the shop. Furthermore, a main priority of the current work is to also shed initial light on the sufficient conditions for increased SoW based on the identified service quality constituents and customer characteristics. In sum, this article mainly focuses on the research exploration of the role that service quality constituents and customer characteristics play in enhancing customer SoW based on an asymmetric (modelling) approach and using customers of the neighbourhood shops operating usually within the less-organised (retailing) sector as the setting for this research. Expressed in the form of research questions, the current study seeks to address the following main questions:

*RQ1.* Are any of service quality constituents (reliability, physical aspects, personal interaction and shop policy) and customer characteristics (gender, relationship duration, income and household size) a necessary condition for increased customer SoW?

*RQ2.* Under what conditions do the combinations of service quality constituents and customer characteristics lead to increased customer SoW?

Addressing these issues especially within the context of retail shops operating in informal and/or less-organised sector is important because of the critical roles these shops continue to play to date in regions such as sub-Saharan Africa (SSA) ([Osakwe, 2019](#)) and indeed in Southern Africa. As [Osakwe \(2019\)](#) previously noted, it is important to examine the ways in which this set of retailers may be able to enhance their marketing metrics and in, this case, SoW. The research insights from this work may therefore be of important benefit to these retailers and other retailers too in developing nations. Besides, the research community can also use the empirical information provided here to guide their understanding of customer SoW in neighbourhood shops operating within a developing economy.

Crucially, this article advances empirical research in customer SoW on two main fronts. The first is that this article provides initial evidence on the necessary conditions for increased customer SoW in the neighbourhood shop. In particular, this study has found that large households and low income are a prerequisite for increased customer SoW; meaning that they both serve as necessary conditions for customer SoW in the neighbourhood shop. This study therefore makes an original and contextual contribution to the customer SoW research stream. The next but most important contribution is the research insight that none of the customer characteristics or service quality constituents are sufficient for increased customer SoW. The current study identifies five unique customer profiles that concurrently result in increased SoW, therefore, establishing the existence of the complex interactions

between the identified service quality constituents and customer characteristics in relation to customer SoW in the neighbourhood shop. More details of the findings are discussed in the concluding part of this article. Altogether, this study based on an asymmetrical approach makes important strides in furthering empirical understanding of the necessary and sufficient conditions for increased customer SoW in the neighbourhood shop.

The rest of this article is organised as follows. Section 2 provides the theoretical background for the study; the data and methods used are reported in Section 3. The research results are presented in Section 4. This article then concludes with a discussion of the research findings and how they potentially inform theoretical and managerial knowledge, and finally the research limitations and opportunity for further research are also presented (Section 5).

## 2. Theoretical background

### 2.1 *The concept of share of wallet*

SoW is commonly understood as the share of customers' spending or expenditure in a focal firm, which can be monitored on a monthly – or a quarterly basis. For firms in general and including neighbourhood shops, encouraging their customers to increase their spending in the shop remains an uphill task. Significantly, several scholars including [Cooil \*et al.\* \(2007\)](#), [Keiningham \*et al.\* \(2007\)](#), [Magi \(2003\)](#) and [Shaikh \*et al.\* \(2018\)](#) suggest that one way the focal firm can grow its customer SoW is by offering their customers satisfactory service experience especially as this may give the customer a reason to buy more from the firm and consequently increasing actual spending in the firm by the customer.

Nevertheless, the firm faces a dilemma in that not all satisfied customers may be willing to increase their spending in the firm because of a variety of reasons and which may include the fact that many customers are price sensitive. Other reasons may also be broadly associated with the socioeconomic conditions of the customer in question. While customer loyalty and indeed actual purchase may serve as a useful proxy for understanding SoW ([Kim and Lee, 2010](#); [Perkins-Munn \*et al.\*, 2005](#)), scholars such as [Keiningham \*et al.\* \(2011\)](#) have noted that customer loyalty itself may not always translate into increased spending in the focal firm. In light of this knowledge, firms and their managers are highly encouraged to discover more effective ways in which they can increase their customer SoW ([Babakus and Yavas, 2008](#); [Buoye, 2016](#); [Buoye \*et al.\*, 2016](#)).

A central challenge for firms and their managers, however, is the need to develop a better understanding of the key factors that can enable them to grow their customer SoW. Some researchers have identified the need for the focal firm to understand the role that demographic and related customer factors such as gender, relationship duration, income and household size play in the development of SoW ([Azeem \*et al.\*, 2018](#); [Buoye, 2016](#); [Cooil \*et al.\*, 2007](#); [Shaikh \*et al.\*, 2018](#)). Yet, how these factors potentially influence customer SoW remains debatable in the literature ([Kim and Lee, 2010](#); [Shaikh \*et al.\*, 2018](#)). There is also the suggestion in past research that customer-perceived quality, or what is also referred to here as service quality constituents, may play a defining role especially in terms of increased customer SoW ([Babakus and Yavas, 2008](#); [Marinković and Senić, 2012](#)). As important as the above research suggestions are to both academic and managerial knowledge, most of these insights and/or suggestions come from research using a symmetric approach and thus they only paint a partial view of the outcome condition of customer SoW.

The current research uses an alternative approach to understanding the occurrence of increased SoW, especially within the neighbourhood shop context and based on asymmetrical thinking, which shall be discussed extensively in the subsequent sections. To clarify, the research at hand, unlike past research that relied on symmetric thinking/

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approach when modelling the determinants of customer SoW, uses an asymmetric modelling approach and fsQCA to examine whether there are necessary and/or sufficient conditions for achieving the desirable outcome of increased customer SoW.

## 2.2 Determinants of customer share of wallet

2.2.1 *Service quality constituents based on the retail service quality model.* Drawing upon RSQM (Dabholkar *et al.*, 1996), scholars have found that customers' perceptions regarding the reliability, policy, personal interaction and physical aspects of the retail shop play an important role in the decision to patronise the shop (Dabholkar *et al.*, 2000; Osakwe, 2019; Vázquez *et al.*, 2001). In other words, it is known that customer-perceived service quality is a strong determinant of attitudinal and behavioural response to the firm (Babakus and Yavas, 2008; Martinelli and Balboni, 2012; Dabholkar *et al.*, 1996, 2000; Teeroovengadam, 2020). Specifically, studies suggest that having a favourable service quality perception of the firm may increase customers' SoW of the focal firm (Babakus and Yavas, 2008; Marinković and Senić, 2012), especially as customers tend to devote their time and financial resources to firms believe to cater sufficiently to their service/product needs.

Additionally, a study within the context of retail banking customers in Ghana finds that investment size, analogous to SoW, is an outcome of customer-perceived quality (Boakye *et al.*, 2016). It stands to reason, therefore, that customer-perceived quality and, in particular, service quality constituents will play an influential role in determining customer SoW, although whether these service quality constituents – perceived reliability, policy, personal interaction and physical aspects of the retail shop – are either a necessary or sufficient condition for increased SoW remains to be seen. More specifically, our argument based on related research (Miranda *et al.*, 2018; Prentice and Loureiro, 2017) is that as influential as the differential service quality constituents may be to customer SoW, none of them is sufficient to explain a high customer SoW, especially a context such as the neighbourhood shop in a developing country where other factors including income, relationship duration and household size may even play a more critical role in determining SoW. In particular, the above argument above is buttressed in the studies of Miranda *et al.* (2018) and Prentice and Loureiro (2017), where these authors found that none of the service quality attributes such as ambience, assurance, reliability and tangibles sufficiently predict customer outcomes such as satisfaction and behavioural loyalty.

2.2.2 *Customer characteristics.* As is widely known in the marketing research community, demographic and relationship variables, which we labelled here as customer characteristics, play a fundamental role in purchase decision-making (see also Cooil *et al.*, 2007; Magi, 2003; Schirmer *et al.*, 2018). Indeed, recent empirical exploration performed in the context of retail stores provides mixed conclusions concerning the impact of customer demographics including household size and income on SoW (Azeem *et al.*, 2018). In the meantime, prior investigation has also argued that gender potentially plays an important role in customer SoW (Babakus and Yavas, 2008; Buoye, 2016). However, the role that gender, along with other demographics like income and household size, might play in the build-up to customer SoW in the neighbourhood shop and other retail stores in the developing world remains relatively unknown in the scientific literature.

Relationship duration, which refers to the length of time that the customer has been with the focal firm, is commonly understood to play an important role regarding SoW (Kim and Lee, 2010; Kong and Maute, 2010; Shaikh *et al.*, 2018). Previous research on this topic seems to suggest that increases in relationship duration are associated with significant increases in customer spending in the shop. This, therefore, is a reason why this study considers relationship duration, along with the above customer characteristics, to be important factors



that can be associated with customer SoW, especially as far the neighbourhood shop operating in a resource-constrained context is concerned.

In accordance with recent research, rather than treating these customer characteristics as moderators, they should instead be proposed as antecedent conditions affecting outcome variables (Farivar and Richardson, 2019; Olya *et al.*, 2019; Prentice and Loureiro, 2017). However, it remains unclear how customer characteristics, along with the previously mentioned service quality constituents, may be associated with increased customer SoW and thereby necessitating the use of an asymmetric approach through fsQCA in investigating the research issue.

### *2.3 Asymmetric approach based on fuzzy-set qualitative comparative analysis*

There is a gradually growing call in the scientific literature (Feurer *et al.*, 2016; Fiss, 2011; Gonçalves *et al.*, 2016; Latif, 2021; Miranda *et al.*, 2018; Yu *et al.*, 2021) for scholars to adopt an asymmetric approach when investigating research phenomena, especially because antecedent conditions leading to outcome(s) of interest hardly operate in isolation (Feurer *et al.*, 2016; Latif, 2021). The notion that antecedent conditions or variables do not operate in isolation builds off on the principle of equifinality. By equifinality, this study means that a given outcome can be realised through the combinations of antecedent conditions (Fiss, 2011; Misangyi *et al.*, 2017; Ragin, 2008), implying that there could be two or more causal solutions/recipes leading to a desirable outcome of interest and in this case (increased) customer SoW.

A current limitation, however, of regression-based estimation techniques such as structural equation modelling and multiple linear regression is that as they are exclusively built on net effect assumptions, they cannot therefore be used for testing the notion of equifinality. Against this backdrop, this work relies on fsQCA because it provides scholars with the tool to efficiently estimate how an outcome condition such as customer SoW can be achieved based on the varied combinations of service quality constituents and customer characteristics. To sum up, the notion of equifinality provides researchers with an in-depth understanding of the different combinations of antecedent variables leading to an outcome of interest and thereby reinforcing the notion that there can be more than one solution to a desirable outcome of interest.

Moreover, the use of asymmetric approach through fsQCA further allows researchers to better understand that while an antecedent variable may be necessary for the occurrence of an outcome condition and in this instance SoW, a single antecedent variable is hardly sufficient for the occurrence of an outcome condition (Latif, 2021; Olya *et al.*, 2019; Prentice and Loureiro, 2017; Woodside, 2013; Yu *et al.*, 2021). Accordingly, implying in this instance that none of proposed service quality constituents (e.g. store reliability) or customer characteristics like household size are sufficient for increased SoW in the shop. Nevertheless, one cannot completely rule out the possibility that among the proposed antecedent variables, some could be essential ingredients for increased customer SoW (see also, for e.g. Olya *et al.*, 2019). Further, underpinning fsQCA as an asymmetric approach is the notion regarding causal asymmetry. In the context of this study, it suggests that while the presence of antecedent conditions may lead to increased customer SoW, it does not also mean that their absence will equate to decreased SoW (Fiss, 2011; Ragin, 2008). This implies that the causal recipes for increased SoW, for example, are not the mirror opposites of those leading to decreased SoW (Latif, 2021; Olya *et al.*, 2019; Prentice and Loureiro, 2017). Consequently, different sets of antecedent factors may be needed when evaluating decreased SoW and this lies beyond the scope of the current investigation.

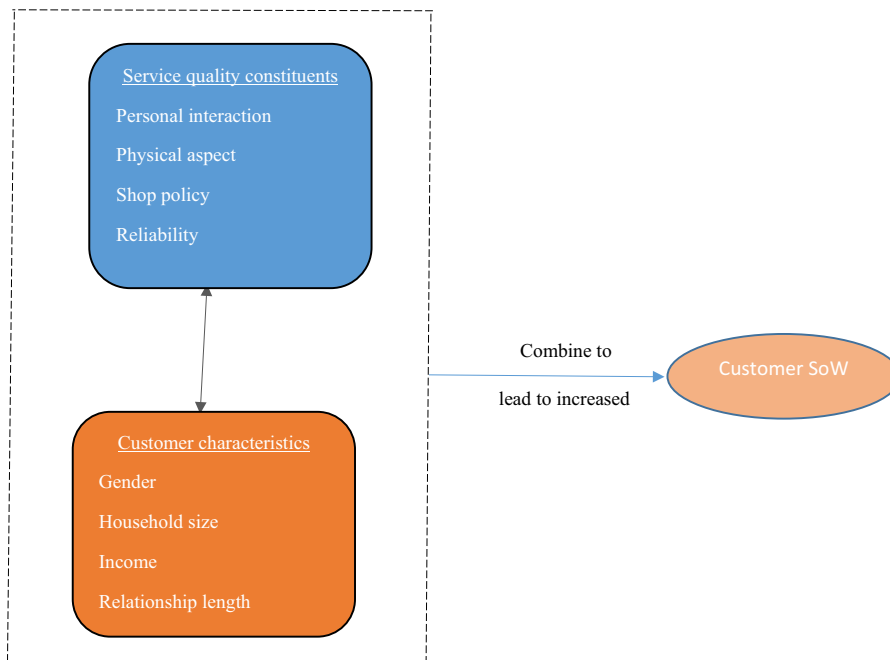
Taken together, the use of an asymmetric approach through fsQCA allows us to reveal how antecedent conditions including service quality constituents and customer characteristics and their interplay could explain increased customer SoW. In other words, this approach assists in uncovering unique customer profiles for increased SoW based on the identified factors of customer characteristics and service quality constituents and thereby leading to a nuanced and balanced understanding of customer SoW, especially in the context of the present study. Finally, the research model guiding this work is portrayed in [Figure 1](#).

### 3. Research methods and data

Prior to administering the questionnaire to research participants, the questionnaire was reviewed by two well-published and international academics in South Africa and feedback received from these experts was used to improve the clarity of the questionnaire. At the same time, a pilot study was conducted among customers of neighbourhood shops (commonly referred to as spaza shops in South Africa), which further helped in improving the comprehension of the questionnaire. Finally, prior to the commencement of the survey, ethical clearance was obtained from the researcher's institution.

#### 3.1 Data and procedure

The survey focused mainly on customers of neighbourhood shops for a reason being that they are the most common in the whole of SSA (cf. [Osakwe, 2019](#)) and thus contribute meaningfully to consumer well-being and consequently on the local economy. It is unfortunate that to date, research that focuses on this important but often neglected context is very rare in the services and consumer literature.



**Figure 1.**  
Proposed research  
model

In the meantime, data collection was facilitated by paid research assistants who live within the communities where these businesses are located and mainly on the outskirts of Johannesburg. Research participants – black South Africans – were mostly intercepted after making purchases at the shops. Data collection lasted between October and December 2017. In the end, 523 usable responses were used for the analysis. A breakdown of the sociodemographic profile, particularly in terms of gender, household and income size, is shown in [Table 1](#).

### 3.2 Measures

Concerning the measures for service quality constituents, they were all adapted from previous research ([Dabholkar et al., 1996](#); [Vázquez et al., 2001](#)) (see [Appendix 1](#) for details). To measure customer SoW, this paper following prior literature ([Ramaseshan and Ouschan, 2017](#)) asked respondents the following question: “At any given month, approximately what percentage of your purchased food and other household items come from this particular retailer?”

### 3.3 Instrumentation reliability and validity

The measures were checked for both reliability and validity using established tests including Cronbach’s alpha ( $\alpha$ ), composite reliability (CR) and average variance extracted (AVE). The results are reported in [Table 2](#) and provide confirmation regarding the validity and reliability of the research instrument.

In addition to this, it should be noted that this study uses both ex ante and ex post approach in the assessment of common method bias (CMB) ([Podsakoff et al., 2003](#)). In brief, the ex ante approach involved the use of different measurement anchors, in addition to assuring respondents of their confidentiality. Further to this, the researcher stated that there were no right or wrong answers; in addition, the respondents were told they could withdraw their participation at any time.

Because leading scholars reckon that Harman’s one-factor test is powerful enough to detect significant evidence of CMB ([Babin et al., 2016](#)), the technique was then adopted in performing the ex post analysis. Results based on the unrotated factor analytic test indicated that CMB is not a substantial concern as several factors emerged from the analysis and no factor accounted for 50% of the variance. Finally, because this work focuses on testing causal combinations, it is impossible for participants to have the cognitive map of the research issue being investigated (cf. [Osakwe and Yusuf, 2021](#)).

Hence, CMB should not be a concern. The correlation matrix with square roots of AVEs shown diagonally is displayed in [Table 3](#) and thus satisfies the assumptions of discriminant validity ([Fornell and Larcker, 1981](#)). Not only that, the results of the correlation matrix reinforced the finding that CMB is inconsequential as none of the correlation coefficients exceeded 0.9 (see also [Osakwe, 2019](#)).

Construct	Subconstruct	Responses (%)
Gender	Female	52.8
	Male	47.2
Monthly income (in rand)	1–1,000	38.2
	1,001–5,000	32.5
	5,001–10,000	16.3
	1,0001–20,000	8.6
	>20,000	4.5
Average relationship duration (in years) with spaza shop		3.5
Average household size		4.8

**Table 1.**  
Sociodemographic  
profile ( $N = 523$ )



Construct	Item codes	Loadings	Reliability and validity	Share of wallet in neighbourhood shops
Physical aspects	Paspect1	0.885	$\alpha = 0.780$ , CR = 0.858, AVE = 0.606	
	Paspect2	0.870		
	Paspect3	0.627		
	Paspect4	0.701		
Personal interaction	Interact1	0.902	$\alpha = 0.928$ CR = 0.948 AVE = 0.821	
	Interact2	0.918		
	Interact3	0.912		
	Interact4	0.893		
Reliability	Reliab1	0.817	$\alpha = 0.904$ , CR = 0.932, AVE = 0.774	
	Reliab2	0.926		
	Reliab3	0.899		
	Reliab4	0.873		
Shop policy	Policy1	0.837	$\alpha = 0.828$ , CR = 0.876, AVE = 0.588	
	Policy2	0.721		
	Policy3	0.659		
	Policy4	0.806		
	Policy5	0.797		
Share of wallet (SoW)	NA	NA	NA	

**Table 2.** Confirmatory analysis results concerning reliability and validity

**Notes:** All loadings are significant at  $p < 0.001$  and generated using WarpPLS 6.0 software. NA – Not applicable

Construct	1	2	3	4	5
1. Physical aspects	<i>0.778</i>				
2. Personal interaction	0.322	<i>0.906</i>			
3. Reliability	0.446	0.568	<i>0.880</i>		
4. Shop policy	0.479	0.575	0.671	<i>0.767</i>	
5. SoW	0.129 <sup>++</sup>	0.056*	0.091 <sup>+</sup>	0.126 <sup>++</sup>	NA

**Table 3.** Correlations among measurement constructs with square roots of AVEs

**Notes:** All correlations significant at  $p < 0.001$ , except for ++ ( $p < 0.01$ ) + ( $p < 0.05$ ) and \* ( $p > 0.10$ ). Correlation matrix showing the customers' characteristics along with the measurement constructs is available on request

## 4. Empirical analysis

### 4.1 Fuzzy-set qualitative comparative analysis

To address the research questions “Are any of service quality constituents (reliability, physical aspects, personal interaction and shop policy) and customer characteristics (gender, relationship duration, income and household size) a necessary condition for increased customer SoW? and under what conditions do the combinations of service quality constituents and customer characteristics lead to increased customer SoW?”, the study used the fsQCA analytical technique. In brief, fsQCA is a case-based technique and differs from conventional estimation techniques such as multiple linear regression and structural equation modelling in four main ways: “set-theoretic versus correlational connections, calibration versus measurement, configurational conditions versus independent variables and causal complexity analysis versus net effects analysis” (Yu *et al.*, 2021: 39; see also Ragin, 2008; Woodside, 2013). More concisely, “fsQCA operates on causal conditions or sets, which differ both in ‘kind’ (present or absent) and in ‘degree’ (of presence or absence)

[whereas] with regression analysis, researchers estimate a change in a dependent variable, on average, given a one-unit change in the independent variable” (Fainshmidt *et al.*, 2020, p. 457). Accordingly, this study considers fsQCA to be a suitable analytical method for the assessment of asymmetrical arguments (see also Ragin, 2008; Woodside, 2013). Moreover, as the primary objective of this study was to identify the combinations of antecedent conditions for increased customer SoW based on service quality constituents and customer characteristics, the use of fsQCA in the study is further justified. The fsQCA 3.0 software package (Ragin and Davey, 2016) was used for the analysis.

#### 4.2 Data set transformation and calibration

In accordance with the literature, the raw data set must first be transformed into fuzzy-set membership scores and where 1 indicates full membership, 0.5 is the crossover point and 0 indicates fully non-membership (Gil-Barragan *et al.*, 2020; Yu *et al.*, 2021; Ragin, 2008). In particular, the qualitative anchors used in calibrating the data into fuzzy scores were predominantly derived from the percentile of the responses given (Miranda *et al.*, 2018; Núñez-Pomar *et al.*, 2016) except of course gender that took the values of 0 (female) and 1 (male). Finally, this article reports the fuzzy-set calibration of the research data in Appendix 2.

#### 4.3 Analysis of necessary conditions

In testing whether any single condition (i.e. antecedent factor) is necessary for increased customer SoW, this article took into consideration the presence, along with the absence, of each one of the antecedent factors. The consensus is that any condition with a consistency value of greater than 0.90 should be considered as a necessary condition leading to the occurrence of the outcome of interest (Latif, 2021; Miranda *et al.*, 2018; Núñez-Pomar *et al.*, 2016; Olya *et al.*, 2019; Ragin, 2008). Indeed, a consistency value is akin to the interpretation of a correlation coefficient in correlation-based works (Woodside, 2013). Importantly, as the data suggests in Table 4, there are two necessary conditions for increased customer SoW in the neighbourhood shop and these are large households and low income, which are a prerequisite for increased customer SoW. These findings therefore indicate that the above two factors are a prerequisite for increased customer SoW in the neighbourhood shop and thus address RQ1.

#### 4.4 Analysis of sufficient conditions

A sufficient condition denotes the subset of the outcome of interest (Ragin, 2008). In the fsQCA literature, causal models with a solution consistency of 0.74 or more are considered informative for the interpretation of a sufficient condition (Gonçalves *et al.*, 2016; Ragin, 2008; Woodside, 2013). Moreover, this study following the recommendation in the literature sets the frequency cutoff to 3 (Feurer *et al.*, 2016; Fiss, 2011; Miranda *et al.*, 2018). Setting the frequency as 3 reflects that only causal conditions involving at least three cases are considered empirically valid and insightful.

Results from the sufficient analysis generate five unique solutions consistently related to increased customer SoW (Table 5). In other words, Table 5 reveals five causal recipes that represent the conditions leading to increased customer SoW in the neighbourhood shop. A deep dive into Table 5 further shows that none of the service quality constituents and customer characteristics are identified to be sufficient conditions for increased customer SoW, in spite of the initial findings that low income and large households are necessary conditions for increased SoW.

Condition	Outcome variable: increased SoW		Share of wallet in neighbourhood shops	
	Consistency	Coverage		
<i>Service quality constituents</i>				
Physical aspects	0.8225	0.688	<b>531</b>	
~Physical aspects	0.694	0.697		
Personal interaction	0.780	0.686		
~Personal interaction	0.700	0.665		
Reliability	0.718	0.718		
~Reliability	0.755	0.634		
Shop policy	0.835	0.674		
~Shop policy	0.671	0.705		
<i>Customer characteristics</i>				
Gender	0.471	0.455		
~Gender	0.529	0.458		
Income	0.044	1.000		
~Income	1.000	0.466		
<i>Household size</i>	0.917	0.519		
~Household size	0.319	0.752		
Relationship duration	0.685	0.738		
~Relationship duration	0.771	0.610		

**Notes:** ~ indicates negation and which can further be easily interpreted here as the opposite condition. Necessary conditions/antecedent factors are italicised

**Table 4.**  
Results of analysis of necessity conditions for increased customer SoW

According to the first solution (Solution I), the combination of male gender with low income, long relationship duration with the shop and large households is a sufficient causal recipe for the realisation of increased customer SoW in the neighbourhood shop. Additionally, Solution II indicates that increased customer SoW results from a combination of satisfactory physical aspects of the shop, long relationship duration and large households with low income. The third solution, which represents Solution III, suggests that the female customers with a low income and a large household will increase their SoW in the neighbourhood shop when the retailer must have built a strong personal interaction with them, regardless of the poor state of the physical aspects of the shop.

The fourth solution (Solution IV) suggests that even when income and perceived physical aspects of the shop are low, so far there exists a strong personal interaction with the shop along with favourable perception about the policy and reliability of the shop and the presence of large households, it can still result in customers increasing their SoW in the shop. Furthermore, the fifth solution (Solution V) suggests that the female customers with a low income and small households will increase their SoW, when the retailer must have also built a strong personal interaction with them, along with holding favourable perceptions of the shop's policy, reliability and physical aspects. Consequently, the outlined five unique solutions completely support the notion about equifinality – which suggests there could be multiple causal paths leading to a desirable outcome variable. Through the research findings, this article has effectively addressed RQ2.

Finally, as coverage in fsQCA is analogous to the coefficient of determination ( $R^2$ ) in regression-based analyses (Woodside, 2013), the solution coverage of 0.736 (see Table 5) can therefore be interpreted as follows: 73.6% of the sum of the memberships in increased customer SoW can be explained by the resulting five causal solutions/recipes.

**Table 5.**  
Results of sufficient  
analysis for  
increased customer  
SoW

Model: SoW = f(Gender, Duration, Paspect, Reliab, Policy, Interact, Housize, Income)			
<i>Intermediate solution</i>	Raw coverage	Unique coverage	Consistency
Frequency cutoff: 3	0.306	0.030	0.752
Causal recipes for predicting increased SoW	0.586	0.081	0.819
SI: Gender*Duration*Housize*~Income	0.287	0.021	0.797
SII: Duration*Paspect*Housize*~Income	0.463	0.037	0.842
SIII: ~Gender*~Paspect*Interact*Housize*~Income	0.126	0.017	0.882
SIV: ~Paspect*Reliab*Policy*Interact*Housize*~Income			
SV: ~Gender*Paspect*Reliab*Policy*Interact*~Housize*~Income			
Overall solution consistency	0.749		
Overall solution coverage	0.736		

**Notes:** S (solution), Housize (household size), Duration (relationship duration), Paspect (physical aspects), Interact (personal interaction), Reliab (reliability), Policy (shop policy), (~) = negation, (\*) = intersection

## 5. Discussion and implications

Growing customer SoW is a key priority for all firms, including for retailers regardless of their size and geographical locations (Azeem *et al.*, 2018; Keiningham *et al.*, 2005, 2011; Shaikh *et al.*, 2018). Therefore, this is an important reason why this study aimed at examining this critical issue beyond a symmetrical approach and by identifying if there are necessary and sufficient conditions leading to increased customer SoW. The current study was undertaken within the context of neighbourhood shops, the reason being that they are the most predominant in SSA, where this study was conducted, but are surprisingly underresearched in the business and marketing literature. Indeed, to the best of the author's knowledge, this arguably is the first research examination on customer SoW in the research context and arguably also the first research that presents evidence regarding the unique customer profiles for increased SoW based on customer characteristics (relationship duration, gender, income and household size) and service quality constituents comprising perceived physical aspects, reliability, personal interaction and policy of the shop. Finally, this article through the evidence presented in Tables 4 and 5 has succeeded in answering the two research questions (RQ1/RQ2) this article sets out to investigate.

### 5.1 Theoretical contributions

The theoretical implications of the present study are twofold. First is that the revelation from the fsQCA results that the absence of high income and presence of large households – in other words, low income and a large household – are necessary conditions for increased SoW illuminates research comprehension of the necessary but insufficient conditions leading to increased customer SoW in a neighbourhood shop. The finding that the presence of low income is a prerequisite for increased SoW in a neighbourhood shop, although constituting a new empirical revelation in the literature, should not be looked at as completely surprising for the following reason. In majority of the African countries today, shops of this kind are mostly found in poor neighbourhoods and thus cater to the needs and relative well-being of the poor in these communities. In this light, those with a low income are the most likely candidates to visit these shops regularly and consequently increase their spending on the shop. Relatedly, the finding that the presence of a large household size is a necessary condition for increased customer SoW makes empirical and practical sense especially because large households have more mouths to feed, which leads to increased spending in the shop. Altogether, this research shines empirical light on low income and large households as necessary but insufficient conditions for understanding increased SoW in neighbourhood shops.

The second contribution of this study, which concerns the sufficiency analysis, provides more illuminating insights for scholarly and managerial knowledge. In particular, this study, and in line with asymmetrical thinking (Latif, 2021; Olya *et al.*, 2019; Prentice and Loureiro, 2017; Ragin, 2008; Woodside, 2013), shows that research phenomena such as customer SoW are complicated in nature. Accordingly, rather than the treatment of the antecedent variables in isolation, it is critically vital to understand how antecedent conditions jointly lead to a desirable outcome of interest, especially as this provides a more balanced perspective to understanding issues related to increased customer SoW in this case. By applying an asymmetric approach through the support of fsQCA, the present study has identified five causal recipes consistently leading to increased customer SoW in neighbourhood shops. Through the five causal recipes/solutions portrayed in Table 5, this study further lends meaningful support to the notion about equifinality in the asymmetric modelling school of thought (Ragin, 2008; Woodside, 2013). The study also lends support to the prevailing knowledge in the literature that no single antecedent condition is sufficient for

accounting for a desirable outcome of interest (Latif, 2021; Olya *et al.*, 2019; Woodside, 2013). This research has identified five distinct causal combinations of the antecedent factors of customer characteristics and service quality constituents that are related to increased SoW in neighbourhood shops.

Previous research has presented evidence (but sometimes mixed) on the independent and/or moderating effects of customer characteristics including income, gender, household size and relationship duration on customer SoW (Azeem *et al.*, 2018; Babakus and Yavas, 2008; Buoye, 2016; Magi, 2003). The present study, especially based on the first solution (i.e. Solution I – see Table 5), advances previous research through the empirical revelation that increased customer SoW is partially a result of the joint influence of (male) gender, relationship duration, (large) household size and (low) income levels. This finding therefore has important implications for understanding how variables underpinning customer characteristics are associated with increased customer SoW especially in the context of a neighbourhood shop in African countries such as South Africa. Altogether, this research has shed light into how the identified customer characteristics jointly and partially contribute to increased customer SoW.

Relatedly, research evidence based on Solutions II–V in Table 5 indicates the existence of four unique customer profiles for understanding increased customer SoW and rooted in the interplay of both customer characteristics and service quality constituents. Amongst these unique customer profiles, Solution V seems to be more particularly interesting to previous research deploying RSQM in their work (Dabholkar *et al.*, 1996, 2000; Osakwe, 2019; Vázquez *et al.*, 2001) especially as this study found that all the service quality constituents and in combination with a small household, female gender and low income are associated with increased customer SoW. In summary, the implication of the above finding is that the female customer who has a small household, in spite of having low income, will increase her SoW in the shop when she is pleased with the reliability, physical aspects, personal interaction and policy of the shop. In contrast, for the low-income female customer with a large household, the chances for her to increase SoW in the shop are high only when a strong personal interaction must have been established with the retailer even when the physical aspects of the shop are less appealing to the customer (see Solution III).

Altogether, the study has contributed to an enriched understanding of customer SoW especially in a heavily under-researched context such as the neighborhood shop in developing countries. Overall, the research evidence base is demonstrative that more than one causal recipe can concurrently lead to increased SoW and consequently implying that the phenomenon is far more complex than previously illustrated in the literature. The research has also provided initial evidence base on the necessary antecedent conditions for increased customer SoW in the neighbourhood shop context. To put this work in perspective, the research evidence has shown that previous thinking about the independent predictors of customer SoW may be limiting – hence the necessity for using an asymmetric modelling approach to develop an enriched understanding of the antecedent conditions that are potentially related to increased customer SoW.

### *5.2 Managerial implications*

The key insights emerging from this study have implications especially for neighbourhood shops and other retailers whose target audience may be those at the bottom of the pyramid or more simply the “poor”. Against the backdrop that most, if not all, neighbourhood shops (particularly in SSA) are constrained by limited marketing information, along with inadequate working capital, it is recommended for this set of retailers to leverage the customer profiles embedded in Solutions I–III in Table 5 as part of their segmentation



strategies for growing customer SoW. For example, as revealed in Solution II, the low-income customer with a large household will likely increase SoW in the shop when the customer must have built a long-term relationship with the retailer and is also highly satisfied with the physical aspects of the shop.

Accordingly, based on Solution II, the neighbourhood shop should ensure that the shop is always tidy and relatively attractive, and efforts should also be made in building good relationships with their customers. Similarly, this research further implies that long-term relationship with the shop is especially important for the low-income male customer with a large household as this unique combination is associated with increased SoW (see Solution I in Table 5). Therefore, it is important to target this set of customers for the retailer to effectively achieve its desired outcome of growing its profitability through increases in customer SoW. Other retailers, especially big retail chains located in the research context, might afford to develop alternative segmentation strategies for growing customer SoW by concurrently deploying the identified five unique customer profiles, or causal recipes, outlined in Table 5.

Meanwhile, a key recommendation of this article to retailers is that they should focus lesser efforts and resources on prioritising a single customer characteristic or service quality expectation, especially as this study has found that none of the customer characteristics or service quality constituents are sufficient for achieving the desirable outcome of increased SoW. Finally, as customers may differ based on their cultural and psychological make-up, it is important also for retail practitioners to take into cognizance some of these differences when using the research insights for formulating segmentation strategies that will, in turn, lead to increased customer SoW.

### *5.3 Limitations and concluding remarks*

In common with all studies, this study is burdened by limitations, consequently paving way for future investigation. One important limitation of this study is that it draws conclusions based on survey data that were collected at a point in time. Thus, even though the analytical procedure yielded causal recipes leading to increased SoW, we should note that the research evidence is not completely causal in nature. To overcome this limitation, future research should consider the use of longitudinal dataset especially when available.

Another significant limitation of this work is that this research was undertaken in a single country, especially among the black South African population who live in neighbourhoods that are on the outskirts of Johannesburg, suggesting the research conclusions may not apply entirely to other nations. Hence, this article calls for extension of the research issue to other (developing) nations where less-organised retail stores are highly prevalent.

Because it is also possible that the set of antecedent conditions being investigated here may not completely apply to shops that operate mostly in the organised retail sector, it is necessary to incorporate additional factors including retailer reputation, customer satisfaction, perceived wellbeing and even ethnicity/ethnocentrism in future exploration. Additionally, there is plenty of room for cross-country analysis in different regions of the world, such as Africa and Southeast Asia, where a significant portion of informal retail trading exists to date. This should improve the understanding about whether the evidence presented here is relatively robust across cultures.

Finally, in using an asymmetrical approach, the study provides a useful tool for understanding how different customer profiles concurrently lead to increased SoW. This study has demonstrated that, although a large household and low income were found to be necessary conditions for increased SoW in a neighbourhood shop, these factors alone and as

shown in Table 5 are insufficient for increased SoW, especially as there exist five unique causal recipes that are associated with increased customer SoW. In conclusion, a key implication of this study is for retailers to know that none of the identified customer characteristics nor the service quality constituents are sufficient conditions for increased SoW.

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## Appendix 1. Latent constructs and their measurement items

*Physical aspects* (1 – strongly disagree to 3 – neither agree nor disagree to 5 – strongly agree)

Shop is clean and attractive.

The way the shop is arranged makes it easy for customers to find what they need.

Materials associated with the shop (such as shopping/paper bags) are visually appealing.

The shop is easily accessible.

*Reliability* (1 – completely false to 3 – neither false nor true to 5 – completely true)

There are always stocks of products/brands desired by customers.

The shop provides the services and goods as customers were promised and allows returns.

When this shop promises to do something by a certain time, it will do so.

The quality of the goods/services is consistently good.

*Policy* (1 – strongly disagree to 3 – slightly disagree to 6 – strongly agree)

This shop consistently offers customers prompt service.

The product prices are reasonable.

The operating hours are convenient for customers.

Returning or exchanging a purchase is not frowned at.

This shop allows for flexible payments.

*Personal interaction* (1 – not true at all to 3 – neither true nor false to 5 – completely true)

The owner and/or employees of this shop show sincere interest in assisting customers.

The owner and/or employees are never too busy to respond to customer requests or complain.

The owner and/or employees are always quick to exchange pleasantries with customers.

This shop gives me personal attention.

Measures	Qualitative anchors' fuzzified values	
Physical aspects (Paspect)	If Paspect = 1	0 (fully non-membership)
	If Paspect = 3	0.5 (crossover point)
	If Paspect = 5	1 (full membership)
Personal interaction (Interact)	If Interact = 1	0 (fully non-membership)
	If Interact = 3	0.5 (crossover point)
	If Interact = 5	1 (full membership)
Reliability (Reliab)	If Reliab = 1	0 (fully non-membership)
	If Reliab = 3	0.5 (crossover point)
	If Reliab = 5	1 (full membership)
Shop policy (Policy)	If Policy = 1	0 (fully non-membership)
	If Policy = 3.5	0.5 (crossover point)
	If Policy = 6	1 (full membership)
Share of wallet (SoW)	If SoW = 5	0 (fully non-membership)
	If SoW = 39	0.5 (crossover point)
	If SoW = 98	1 (full membership)
Household size (Housize)	If Housize = 1	0 (fully non-membership)
	If Housize = 3	0.5 (crossover point)
	If Housize = 5	1 (full membership)
Gender	If Gender = 0	0 (fully non-membership)
	If Gender = 1	1 (full membership)
Income	If Income = 999	0 (fully nonmembership)
	If Income = 5001	0.5 (crossover point)
	If Income = 10001	1 (full membership)
Relationship duration (Duration)	If Duration = 1	0 (fully non-membership)
	If Duration = 3.5	0.5 (crossover point)
	If Duration = 9	1 (full membership)

**Table A1.**  
Fuzzy set calibration  
of research data

**Note:** Gender treated as a crisp value with 0 as female and 1 as male

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Christian Nedu Osakwe has a PhD in Management and Economics with specialisation in Marketing Management. At the time of conducting this study, Chris was a fulltime Postdoctoral Research Fellow at the Gordon Institute of Business Science. His research interests cover marketing capability development of the domesticated firm, digital adoption and consumer behaviour (particularly with a focus on services marketing). Chris has publications in journals such as *European Business Review*, *Journal of Services Marketing*, *Journal of Business Research*, *Marketing Intelligence & Planning*, *International Journal of Bank Marketing*, *Total Quality Management and Business Excellence*, *Journal of Retailing and Consumer Services* and *Journal of Strategic Marketing*. Christian Nedu Osakwe can be contacted at: [chris.osakwe12@outlook.com](mailto:chris.osakwe12@outlook.com)

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