This paper presents a number of comparative models showing factors that are useful in differentiating between supermarket customers. The main focus is on identifying which variables and constructs are important for consumers in determining store choice and how these interact with one another. The emphasis is on providing a theoretically satisfying account of supermarket patronage based on visual models developed using LISREL. The results showed that the profile of the consumer is important to store choice, but not necessarily the factors that the consumer believes to be particularly important for shopping in general. Differences in consumer patronage are examined for five stores in Cardiff, Wales, with managerial implications discussed in the light of these findings. This project demonstrated that the use of structural equation modelling using the LISREL software package is an effective method of modelling the complex relationships in the data in a way that can readily be interpreted by non-statisticians.

Introduction:

There has been a great deal of interest recently in shopping behaviour and, more specifically, in the decisions made by consumers relating to supermarket patronage. A number of studies have sought to identify important variables in an attempt to explain consumer behaviour. Numerous variables and constructs have been found to affect store choice and these have been found to be related in complex ways. The following discussion deals with a few of these variables and how they impact on consumer behaviour and supermarket patronage.

Perhaps the most obvious factor in choosing a store is the relative price of the goods offered. Although it would appear that cheaper prices should play an important role in attracting customers, it has become clear that price competition is not the sole answer to increasing market share. Almost half of the 1,000 shoppers surveyed by Strachan (1997) indicated that they did not visit the supermarket they believed offered the cheapest prices. In addition to this finding Dickson and Sawyer (1990) found that purchasers spend only a
short time making their selection and many do not check an item’s price when they select it. As a result, over fifty percent could not correctly name the price of an item just placed in a trolley, and over half of shoppers purchasing a special offer product were unaware of their saving. These findings are perhaps unsurprising given the number of people who shop at more expensive stores. Consumers are clearly taking account of more than just price and promotional offers in deciding where to shop.

One of the additional factors which is likely to have an important effect on store choice is the degree to which stores are convenient and allow consumers to save time shopping. Many consumers put a premium on their time and view it as a scarce resource. One of the indicators of the importance of speed is the rise of one-stop shopping, which offers substantial time savings for the consumer. Messinger and Narasimham (1997) developed a model to help explain the growth of one-stop shopping results suggesting that greater prevalence of one-stop shopping has been the response to growing consumer demand for time-saving convenience. For grocery retailing, it has been argued that location and convenience are the determining factors for store choice (Magi and Julander, 1996).

Managers of retail outlets are increasingly recognising that the store environment significantly affects sales, product evaluations and satisfaction (Bitner, 1990). In fact, it has been shown that attitudes towards the store environment are sometimes more important in determining store choice than are attitudes towards the merchandise. A key role that store environment plays is to provide informational cues to customers about merchandise and service quality (Gardner and Siomkos 1985; Zeithaml 1988). Merchandise quality and service quality have been identified as critical components in the consumer’s decision-making process (Dodds, Monroe and Grewal, 1991; Kerin, Howard, and Jain, 1992) and ultimately affect the choice of supermarket a consumer chooses to patronise.

Customer satisfaction has been identified as an important determiner of shopping behaviour with much of the literature taking as given the notion that customer satisfaction is a proxy for store repatronising behaviour. Whilst this might be the case generally, it should be noted that costs of dissatisfaction could outweigh the benefits of satisfaction as exceeding customer expectations will merely retain current customers whilst dissatisfaction is likely to result in customers going elsewhere, at least in the short-term. Closely related to satisfaction is the quality of the produce and staff (Hutcheson and Moutinho, 1998) with quality that falls short of expectations having a greater effect on satisfaction (and therefore store patronage) than quality that exceeds expectations (Anderson and Sullivan, 1993). According to Anderson, Forwell and Lehman, (1994), two major conceptualisations of customer satisfaction can be identified—transactional specific and cumulative satisfaction. The existence of possible causal links between perceived service quality and customer satisfaction, and which of the constructs has a direct impact on customer loyalty, has

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been debated in the literature (Cronin and Taylor, 1992; 1994; Teas, 1993; Parasuraman, Zeithaml and Berry, 1994). As Cronin and Taylor (1992) argue, it seems reasonable that customer satisfaction is affected not only by the quality of what the customer receives, but also by price and convenience.

Consumer choice is not only related to what the stores offer, but is also likely to be related to consumer-specific factors such as social class, the type of family unit, age and lifestyle. Research conducted by Dickson and Maclachlan (1990) was designed to see whether a conceptualisation of social distance (as measured by social class variables) between shoppers and stores would provide a basis for understanding store avoidance behaviour. Controlling for other functional aspects of store image such as price and personnel, the social distance measure was found to be influential in discriminating shopping frequency groups, providing evidence that people tend to avoid stores that are perceived as being socially distant from themselves. Narayaman, 1998, found that people’s attitudes to supermarkets vary as a function of their lifestage and lifestyle. Most go to the same store, follow a set pattern and buy the same items as last time they were there. Lifestage and lifestyle are factors that affect consumer behaviour and are likely to also have an impact on store choice.

There are many variables that are related to shopping behaviour and supermarket choice. If these are to be understood, they need to be modelled as part of a dynamic, interacting system. This paper attempts to bring together many of these influences and model supermarket choice using structural equation models to provide statistical and graphical representations of the important relationships and enable comparisons to be made between different stores.
Method

This project was undertaken in Cardiff, Wales, with a sample of consumers chosen to represent the most important geo-demographic clusters in the city. A sample of 637 respondents was obtained using a “drop in” and “collect data at a later date” approach with a callback procedure applied in the cases where respondents were not at home. The fieldwork was carried out by a selected group of trained professional interviewers. By way of thanking the survey respondents for completing the questionnaire, three prize draws were used.

The questionnaire used elicited a number of details about the respondent including personal details and information about their shopping habits. In addition to these questions, the relative importance of a number of factors likely to play a role in determining choice of store were assessed, including the quality and range of produce and services, the ease and speed with which shopping could be completed, the range of goods and services offered, the behaviour of staff, and the atmosphere in the store. Respondents were asked to rate how important they perceived each item to be on a five-point ordered scale, with possible responses ranging from 1, which indicated minimal importance, through to 5, which indicated high importance.

Developing the research model

The research model was designed to illustrate store patronage on the basis of consumer profile and reported choice criteria and enable comparisons to be made between a number of different stores. The number of variables used was restricted to enable a degree of parsimony and also allow visual representations of the models using the LISREL package (Joreskog and Sorbom, 1993a, 1993b). In order to reduce the number of variables needed to represent the data and include the underlying factors associated with store choice, factor scores were used to represent consumer choice criteria and entered directly into the model. Two latent constructs were hypothesised - ‘consumer profile’ and supermarket ‘choice criteria’. Consumer profile was defined using the number of people in the household, the distance travelled to the store, take-home pay of the household and the importance attached to the supermarket providing facilities for cars (this provided an indication of car ownership). Consumer choice criteria was defined using a number of factors that had been derived from the data using principle components analysis and interpreted after an oblique rotation was performed (see Hutcheson and Moutinho, 1998). These factors indicated the importance of the quality of produce and staff (Quality), the provision of restaurants, parent and baby facilities etc. (Additional Services), parking and petrol (Car), ease/speed of use (Speed) and value for money (Value). Table 1 provides information about the factors and the factor loadings associated with individual variables.
Table 1: Factor analysis of supermarket choice criteria

<table>
<thead>
<tr>
<th>Factor 1: Quality of produce and staff</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of trolleys</td>
<td>0.734</td>
</tr>
<tr>
<td>Quality of packaged goods</td>
<td>0.726</td>
</tr>
<tr>
<td>Quality of fresh goods</td>
<td>0.597</td>
</tr>
<tr>
<td>General atmosphere in store</td>
<td>0.595</td>
</tr>
<tr>
<td>Friendliness of staff</td>
<td>0.503</td>
</tr>
<tr>
<td>Factor 2: Additional services</td>
<td></td>
</tr>
<tr>
<td>Restaurants/cafes</td>
<td>0.687</td>
</tr>
<tr>
<td>Transport provided by store</td>
<td>0.571</td>
</tr>
<tr>
<td>Parent &amp; baby facilities</td>
<td>0.537</td>
</tr>
<tr>
<td>Help with packing at checkouts</td>
<td>0.501</td>
</tr>
<tr>
<td>Factor 3: Parking and Petrol</td>
<td></td>
</tr>
<tr>
<td>Car parking facilities</td>
<td>-0.830</td>
</tr>
<tr>
<td>Petrol Station</td>
<td>-0.800</td>
</tr>
<tr>
<td>Factor 4: Ease/speed of use</td>
<td></td>
</tr>
<tr>
<td>Availability of express checkouts</td>
<td>-0.668</td>
</tr>
<tr>
<td>Availability of cash point facilities</td>
<td>-0.599</td>
</tr>
<tr>
<td>Convenient location</td>
<td>-0.594</td>
</tr>
<tr>
<td>Factor 5: Value for money</td>
<td></td>
</tr>
<tr>
<td>Frequency of special promotions</td>
<td>-0.718</td>
</tr>
<tr>
<td>Low prices</td>
<td>-0.608</td>
</tr>
<tr>
<td>Availability of loyalty discount scheme</td>
<td>-0.548</td>
</tr>
</tbody>
</table>

Figure 1 shows a LISREL model depicting the relationship between the variables (shown in square boxes) and the latent constructs (shown in elliptical boxes). One-way arrows show relationship between the variables and latent constructs, whilst two-way arrows show correlations between variables. The statistics reported in the diagram are t-statistics that provide some indication of the strength of the depicted relationships. It should be noted that the signs associated with the t-values are not always readily interpretable in relation to the direction of the relationship as the original factor scores indicating the importance of the car, speed and value are negative whereas those related to quality and additional services are positive (see Table 1).
Figure 1 provides a very simple view of the consumer in the ‘consumer profile’ latent construct and this is found to be related to the number of people in the household \((t = 4.91, p < 0.0005)\), the distance travelled to the store \((t = 6.90, p < 0.0005)\), household take-home pay \((t = 11.06, p < 0.0005)\) and the importance of provision for the car \((t = -9.71, p < 0.0005)\). There is also an association between the importance of ‘speed and ease of use’ of the supermarket and take-home pay \((t = -3.01, p < 0.005)\). This is to be expected, as highly paid consumers tend to value their time and put a premium on the speed with which their shopping can be completed. Choice criteria were also represented in a single latent variable which was shown to be related to the quality of the produce and staff \((t = 21.63, p < 0.0005)\), the provision of additional services \((t = 19.02, p < 0.0005)\), the speed and ease of use of the supermarket \((t = 10.91, p < 0.0005)\), and the perceived value for money \((t = 4.70, p < 0.0005)\). In addition to these links, the variables value, speed, and car are related and, as mentioned before, speed is also related to take-home pay. The relationship between value, speed and car is
to be expected, as those consumers who have a relatively high take-home pay are likely to own a car and
rate the speed and ease of use of the supermarket relatively highly. These consumers also rate value for
money as being of importance. The relationship between the two latent constructs ‘consumer profile’ and
‘choice criteria’ is small and insignificant (t = 0.04, p > 0.1).

Figure 1 provides a theoretically consistent model which shows a good fit (chi-square = 4.95, df = 14,
p = 0.99; 90% confidence intervals for RMSEA = 0.0, 0.0; see Joreskog and Sorbom, 1993a) and will serve as
the base model for comparing customer profiles and patronage behaviour.

Comparative Models.

The models depicted in the appendix show the base model (see Figure 1) with additional variables added to
indicate supermarket choice. The supermarkets chosen were those that were normally used by over 5% of
the sample. Five supermarkets reached this criterion and were included - Tesco, with 270 respondents, Kwik
Save with 96, Sainsburys with 56, Solo with 43 and Asda with 34. The variable added to the model in each
case was a binary classification indicating those who normally shopped at that particular market and those
that shopped elsewhere. The models therefore provide a comparison between those respondents who shop
at a particular market and those that shop elsewhere, and do not show the absolute importance of each of
the variables in relation to supermarket choice. For example, the quality of goods and staff may be a very
important consideration for the consumer, but may not play much of a role in describing patronage for the
supermarkets in the sample. If all supermarkets provide an acceptable level of quality, then this factor may
not differentiate store choice. In such circumstances, consumers may use other factors to differentiate
between stores (additional facilities and the provision of quick service tills, for example).

The models shown for each store have been constructed by adding in variables indicating store choice to
the basic model depicted in Figure 1 above and then determining which additional relationships need to be
defined (in addition to the relationships between the store choice variable and the latent constructs) to
enable a good-fitting model to be produced (necessary additional pathways were identified on the basis of
the modification index statistic; see Joreskog and Sorbom, 1993a). The additional pathways that have been
added to the model are shown in bold dashed lines. As above, the model parameters shown in the diagrams
are the t-values.

As this variable is associated with a negative factor score, the negative t-value indicates a relationship in
the same direction as the other variables. That is, consumers with relatively high take-home pay who travel a
long way to their store also consider provision for the car as being important.
Results

One of the major points of interest in the models are the strength of the relationships between the binary classification of supermarket patronage and the hypothesised latent variables ‘customer profile’ and ‘choice criteria’. These statistics are depicted in Figures 2 to 6 and, for convenience, are also shown in Table 2 below:

<table>
<thead>
<tr>
<th>Latent Constructs</th>
<th>Asda</th>
<th></th>
<th></th>
<th>Kwik Save</th>
<th></th>
<th></th>
<th>Sainsburys</th>
<th></th>
<th></th>
<th>Solo</th>
<th></th>
<th></th>
<th>Tesco</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t</td>
<td>p</td>
<td></td>
<td>t</td>
<td>p</td>
<td></td>
<td>t</td>
<td>p</td>
<td></td>
<td>t</td>
<td>p</td>
<td></td>
<td>t</td>
<td>p</td>
</tr>
<tr>
<td>Supermarket</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asda</td>
<td>4.95</td>
<td>&lt; 0.0005</td>
<td></td>
<td>-0.20</td>
<td>&gt; 0.1</td>
<td></td>
<td>5.40</td>
<td>&lt; 0.0005</td>
<td></td>
<td>-0.02</td>
<td>&gt; 0.1</td>
<td></td>
<td>-13.78</td>
<td>&lt; 0.0005</td>
</tr>
</tbody>
</table>

What is clear from Table 2, is the relative importance of consumer profile compared to choice criteria. Store choice is influenced by a number of factors related to the consumer rather than the specific attributes the consumer believes are important in a store. This relationship cannot be taken as a causal one (that is, one cannot conclude that the consumers are choosing a particular store on the basis of their ‘profile’) as the study is correlational and the result could be due, at least to some extent, to the geographical position of the store rather than a conscious decision on the part of the consumer. For example, a store sited in a relatively poor area will tend to be frequented by people from that area who will have a relatively low take-home pay, a low level of car ownership and, as a consequence, travel only a short distance to the store.

The relationships between store choice and the latent variables only provides a limited picture of how consumers choose their store. In order to obtain good-fitting models, other relationships (in the form of correlations between variables) need to be added to the models. These additional relationships are depicted in Figures 2 to 6, and for convenience are also shown in Table 3.
Table 3: Pathways added to base model

<table>
<thead>
<tr>
<th>Supermarket</th>
<th>Patron</th>
<th>Non-patron</th>
<th>t*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asda</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance from store</td>
<td>2.156</td>
<td>1.836</td>
<td>6.48</td>
</tr>
<tr>
<td>No in household</td>
<td>2.788</td>
<td>1.836</td>
<td>-3.38</td>
</tr>
<tr>
<td>Kwik Save</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No in household</td>
<td>3.359</td>
<td>3.000</td>
<td>4.17</td>
</tr>
<tr>
<td>Take-home pay</td>
<td>170.33</td>
<td>266.51</td>
<td>-4.56</td>
</tr>
<tr>
<td>Sainsburys</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No in household</td>
<td>2.769</td>
<td>3.083</td>
<td>-3.94</td>
</tr>
<tr>
<td>Distance</td>
<td>2.056</td>
<td>1.833</td>
<td>4.83</td>
</tr>
<tr>
<td>Value</td>
<td>0.437</td>
<td>-0.056</td>
<td>6.30</td>
</tr>
<tr>
<td>Solo</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. in household</td>
<td>3.11</td>
<td>3.05</td>
<td>5.23</td>
</tr>
<tr>
<td>Tesco</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. in household</td>
<td>2.96</td>
<td>3.13</td>
<td>-3.90</td>
</tr>
<tr>
<td>Value</td>
<td>-0.16419</td>
<td>0.11007</td>
<td>-4.90</td>
</tr>
</tbody>
</table>

* all values of t are significant to 0.0005

The additional relationships required to obtain good-fitting models show necessary modifications to the base model. At a descriptive level, these additional model pathways indicate differences in the relationship between individual store patronage and the variables above and beyond that relationship implied by through the latent construct. Using this information the following tentative conclusions can be reached.

Customers of Asda tend to travel further to the store and also tend to come from smaller households. Customers of Kwik Save tend to come from larger households with a smaller take-home pay. Customers of Sainsbury’s tend to come from smaller households, travel further to the store and are not particularly concerned with value for money. Customers of Solo tend to come from larger households and customers of Tesco tend to come from smaller households and tend to be more concerned about value for money.
Conclusion

The models in this paper are used descriptively to illustrate the complex relationship between store choice, consumer profile and consumer choice criteria. Figures 2 to 6 demonstrate a useful way to model complex data that does not obscure or lose the model complexity as many of more ‘traditional’ modelling techniques tend to. The use of graphical models goes some way to representing the overall relationships in the data in a way that can be readily observed and interpreted by a large audience. These models are, however, not simple and a certain amount of interpretation is necessary to describe the findings.

The first finding of interest is that the two hypothesised latent variables, ‘consumer profile’ and ‘choice criteria’, play very different roles in determining store choice. Customer profile is relatively important for four out of the five stores investigated (see Table 3) and the store that did not show a significant relationship between store choice and consumer profile (Kwik Save), nevertheless showed strong relationships with individual variables that make up the consumer profile latent construct (specifically, the size of family and take-home pay). The consumer profile latent construct was strongly related to take-home pay, car ownership, distance travelled to the store and the number of people in the household. All of these variables combine to form the construct which is related to store choice. It is noticeable that the number of people in the household is relatively weakly related to the consumer profile construct as this variable is not related in a simple way to take-home pay and car ownership (take-home pay is likely to be only quite weakly related to family size, although large families appear to be associated with a relatively small take-home pay in this sample). It is the nature of this relationship that leads to the addition of specific pathways between this variable and store choice in all of the models. The importance of household size is, however, an interesting finding as it is not obvious that it should play such an important role in determining store choice. This result suggests that single people and couples may seek a different shopping environment to those with families. This result is reinforced by the work of Narayaman, 1998, who found a similar finding in that peoples’ attitudes to supermarkets vary as a function of their lifestyle and life stage. Consumers with large families are likely to have different lifestyles and attitudes to supermarkets than single people and couples, a difference which will ultimately be reflected in their choice of supermarket.

The direction of the relationship between consumer profile and store choice indicates some important differences between store patronage. Kwik Save and Solo, which show negative relationships between store choice and the consumer profile latent variable, tend to attract relatively low paid customers who do not travel far to the store, do not use cars as often and have relatively large families. In comparison, Asda, Sainsburys and Tesco, which show positive relationships between store choice and the consumer profile latent variable, tend to attract customers who are relatively well paid, use cars and tend to travel further to the store and also come from smaller families. These customer profiles do not provide any surprises as

differentiation between the store’s clientele along such ‘class’ lines is to be expected (see Dickson and MacLaughlin, 1990). It is interesting, however, that the models have demonstrated these distinctions so clearly.

The latent construct ‘choice criteria’ showed strong relationships with the variables ‘quality’, ‘additional services’ and ‘speed and ease of use’. These variables did not, however, appear to influence store choice, as ‘choice criteria’ was not significantly related to store choice for any of the supermarkets investigated. Particularly in the light of supermarkets striving to provide more and better facilities and quality shopping environments, it is interesting to note that choice criteria does not appear to be used by consumers when deciding between the stores in the present sample. Not all of the variables that make up choice criteria were insignificant, however, as ‘value for money’ was significantly related to store choice for two of the stores, Sainsburys and Tesco. Customers of Sainsburys tended to be not particularly concerned with value for money, whereas Tesco customers were (this findings provides an interesting differentiation between two of the stores which attract the better-off consumers). Apart from these two results, the impact of choice criteria on supermarket patronage was not significant.

It is interesting to note that the factors which differentiated between the stores were not necessarily the factors which were rated as being of most importance generally to consumers. Hutcheson and Moutinho (1998), in an analysis of the same data in relation to satisfaction, found that ‘value for money’ and ‘quality of staff and produce’ were rated as being the most important for consumers. These factors were not however, on the whole, particularly important for customers choosing which store to patronise. Value for money was shown to be an important factor in store choice for only two of the stores, with Sainsbury’s customers tending to be less concerned about value for money and Tesco customers more concerned. Quality of produce and staff was not significant in determining store choice for any of the stores.

It is useful to interpret this result in the light of the disconfirmation of expectation paradigm (Oliver, 1980; Churchill and Surprenant, 1982) which proposes that the costs of dissatisfaction may outweigh the benefits of satisfaction. In the present study it might be that the quality of staff and produce for all of the stores was above an ‘acceptable’ level and was not therefore used as a criterion to differentiate between the stores. It may be the case that a decrease in quality below this level may have a serious impact on patronage, but any further increase in quality may not affect store choice significantly. A disconfirmation of expectation may result in a change in store patronage, whereas exceeding expectations in this area will be unlikely to influence other consumers to changing stores, at least in the short term. In this case, in order to increase market share, the supermarkets may be advised to concentrate on factors other than quality once a certain acceptable level has been achieved.

It should be noted that the models shown the appendix are geographically-specific as the sample was collected in Cardiff and a number of particular factors are likely to have influenced particular store choice above and beyond global attitudes to the particular store name. Undoubtedly, the location of the store in relation to concentrations of specific types of consumers has a great effect on the results and these reflect to some extent the store placement decisions made by the supermarket chain.

**Managerial Implications**

The main managerial implications derived from this study can be summarised as follows:

- The impact of consumer profile on store patronage, which is evident in the findings of this research study, calls for a more effective use of geodemographic databases and, in particular, for a more detailed and systematic analysis of household composition and patterns of shopping and consumption of its members.

- Supermarkets should revamp their utilisation of site location modelling approaches coupled with geodemographic and psychographic segmentation bases, as well as newly developed geographic information systems (G.I.S.).

- The use of the car and take-home pay (and consequently, speed and convenience (e.g., the number of checkouts open, length of cues etc.) are particularly important for those supermarkets that cater for the more affluent consumer (Asda, Sainsbury’s and Tesco). These factors should remain a major strategic weapon to be considered in this business system.

- Stores can be classified according to the profile of their customers. Stores may find it useful to utilise a model-building approach to define their clientele and those of the competing stores in the local area. This will provide information about strategies for increasing market share in relation to a certain customer profile.

- Store patronage is a complex decision making process by the consumer. If it is to be understood, appropriate models need to be built and interpreted. The use of the models shown here provide one way in which the decision-making process can be modelled in a relatively accessible manner. The use of this modelling technique can inform supermarkets about the way in which consumers differentiate

between stores and provide valuable information about how to exploit these variables to maximise patronage.

Further Research

The next stage of this research project involves the testing of the same a priori hypothesised research model (excluding the latent constructs) through the application of a logistic regression approach in order to predict supermarket preference. Such analyses will supplement the models shown in this paper and enable predictions regarding supermarket patronage to be made.

Consumer profile and how this impacts on store choice is an area for further research. Store choice appears to be affected strongly by factors such as take-home pay, provision for the car and the size of the family. The relative impact of these variables on store choice needs to be investigated and analysed to see if they are important in their own right or merely provide an indication of a more general store image factor.

References


APPENDIX

Chi-Square = 17.48, df = 18, p = 0.49. 90% confidence intervals for RMSEA = 0.0, 0.034

Figure 2. Asda

Chi-Square = 11.50, p = 0.87. 90% confidence intervals for RMSEA = 0.0, 0.018

Figure 3. Kwik Save

Chi-Square = 9.26, df = 17, p = 0.93. 90% confidence intervals for RMSEA = 0.0, 0.01

Figure 4. Sainsburys

Chi-Square = 20.14, df = 19, p = 0.39. 90% confidence intervals for RMSEA = 0.0, 0.037

Figure 5. Solo

Chi-Square = 8.43, df = 18, p = 0.97. 90% confidence intervals for RMSEA = 0.0, 0.0

Figure 6. Tesco