Volume 1 - Issue 1

International Journal of Business Science and Applied Management

A fresh approach to business and management research

www.business-and-management.org

ISSN 1753-0296

Int. Journal of Business Science and Applied Management, Volume 1, Issue 1, 2006

A Structural Equation Model of Customer Satisfaction and Future Purchase of Mail-Order Speciality Food

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Abstract

Analyses the relationship between satisfaction with mail-order speciality food attributes, overall satisfaction, and likelihood of future purchase using a structural equation model. The results indicate that customer satisfaction is associated with both service and product features of mail order speciality food.

Keywords: customer satisfaction, re-purchase intentions, speciality mail order food, structural equation modelling

1 INTRODUCTION

In the UK the market for mail-order speciality foods has evolved in line with the growth of direct marketing in response to changes in modern lifestyles and customer expectations. These changes have paved the way for the exploitation of in-home shopping systems (The Economist, 1994; Victor, 1995). The issues faced by speciality food marketers concern the identification and satisfaction of customers' needs in the context of key elements of direct marketing such as targeting, interaction, continuity and control with an emphasis on customer retention (McCorkell, 1997).

In this context direct marketing emphasises the importance of building a long-term relationship with customers through quality, value and service. In this respect there is a shift in emphasis from pure transactions-based marketing to give at least equal attention to relationship marketing. Thus in the face of increasing competition firms pursue objectives of survival, prosperity and competitive advantage by building products and customers through the delivery of high value (Kotler et al., 1996).

The consumer is assumed to have an objective of maximising value; the difference between the benefits conferred in relation to the costs of acquisition, including costs of decision making, relative to alternative products or suppliers. According to Kotler et al. (1996), maximisation of customer value is translated into maximisation of customer satisfaction relative to expectations and product performance.

From the firm's perspective, delivery of value may be related to the notion of the value chain (Porter, 1985). Porter emphasises that value is not just delivered by products but through all primary activities (in-born logistics, operations, out-bound logistics, marketing and sales, and service) in association with support activities (infrastructure, human resources, technological development and procurement).

The problem facing mail-order speciality food companies is consistent with this particular area of research. Although, in what constitutes a relatively new sector, these firms face the traditional transactions-based task of recruiting new customers, they also need to engage customers in a long-term relationship; to encourage repeat business and loyalty through the delivery of value. Thus the focus of this paper is to identify whether and to what extent such firms deliver satisfaction across the transactions aspects of their operations and whether this creates a positive response in terms of overall satisfaction and intentions to repeat purchases.

The structure of the paper is as follows. It begins with a discussion of the background literature and is followed by an explanation and discussion of the research methodology. This is followed by the presentation of the empirical results. Finally the paper closes with some summary and concluding comments.

2 BACKGROUND ISSUES

According to Dick and Basu (1994), consumer loyalty plays a central role in marketing strategy, and marketing planning in the achievement of brand loyalty, vendor loyalty in industrial marketing, service loyalty in the service sector and store loyalty in the retail sector. The marketing literature defines loyalty as an attitude or a behavioural intention (Hallowell, 1996). Attitudinal loyalty reflects an individual’s overall attachment to a product, service or organisation (Fornier, 1994). Behavioural loyalty is expressed in terms of intentions to re-purchase, to increase the scale and scope of a relationship, brand-switching or the act of recommendation (Yi, 1990; Selnes, 1993; Biong, 1993).

The widest perspective of behavioural loyalty is set within the context of the quality-value-satisfaction (Q-V-S) literature. In a review of this literature Cronin et al. (2000) report that research interest in Q-V-S has proceeded from a focus on perceived quality to satisfaction and hence to value according to national awards or paradigm shifts such as total quality management, customer satisfaction measurement, and customer value measurement. Research studies have paid attention to the measurement of the constructs (Dabolkar et al., 2000), the relationships between them (Cronin et al., 2000) and how they affect behavioural intentions (Bou-Llusar et al., 2001).

The elements within the Q-V-S framework tend to be defined as constructs with multiple measures. Typically a construct of ‘Sacrifice’ is specified to depict the sacrifice in terms of price, time and effort to accomplish the transaction. An independent construct of ‘Perceived Quality’ along with ‘Sacrifice’ is linked to a construct of ‘Perceived Value’. ‘Perceived Value’ thus reflects the influence of the trade-off between ‘Sacrifice’ and ‘Perceived Quality’. Three alternative forms of measurement have been applied to the perceived quality construct. One approach has been to address perceived quality (Very poor, Very good). Another has been to employ disconfirmation measures that are related to expectations (Much worse than expected, Much better than expected). A third approach employs computed disconfirmation that employs measures of perceived quality and expectations and computes disconfirmation by subtraction. A further issue is whether disconfirmation is more suitable measured in a cross-section study or longitudinal study. In the latter approach expectations are measured prior to service delivery while service quality is measured afterwards.

The need for firms to measure customer satisfaction has led to the use of instruments such as customer satisfaction and purchase intentions surveys, analysis of complaints and suggestions, ghost shopping and lost customer analysis. A study by Wilson (2002) researched the use of customer satisfaction measurement within the retail sector. The research reveals a high degree of usage for monitoring customer attitudes, the overall performance of the firm and to identify problem areas. Yet more than two-thirds of firms indicated that satisfaction measures are most useful when combined with complementary measures. Hausknecht (1990), in a review of methods of measuring customer satisfaction/dissatisfaction, provides a taxonomy of measurement scales, which are classified as evaluative or cognitive, emotional or affective and, behavioural or conative approaches. However, Halstead (1989) makes the point that satisfaction is not desirable as an end but rather as a means to understand future customer responses. Hence interest in satisfaction is linked to customer loyalty and retention. However, satisfaction is regarded as a necessary but not a sufficient condition to lead to repeat purchase behaviour (Van Looy et al., 1998; Bloemer and Kasper, 1995).

Satisfaction is typically measured as an overall feeling or as satisfaction with elements of the transaction in terms of its ability to meet customers' needs and expectations (Fornell, 1992; Zeithaml and Bitner, 2000). Another approach employs a disconfirmation paradigm, which examines deviations of performance from customer expectations and norms (Bearden et al., 1981).

A series of studies has further elaborated the satisfaction-loyalty relationship for products and services, brands and retailers and considered the interaction between these (Bloemer and Lemmink, 1992). For example, Dabholkar and Thorpe (1994) employ multiple measures of both overall satisfaction and loyalty. Bloemer and Kasper (1995) distinguish between spurious and true (brand) loyalty and between manifest and latent satisfaction. They also provide explicit treatment of the situation in which purchase takes place. In a study of customers of a car dealership Bloemer and Lemmink (1992) distinguish between the satisfaction-loyalty relationship for both dealers and brands. La Barbera and Mazursky (1983) employ a longitudinal study, which enables them to consider the analysis of satisfaction over time, including brand-switching behaviour.

A further issue within the Q-V-S framework is the nature of the interactions between its component constructs including direct and indirect links to behavioural intentions. In their review of the applications Cronin et al. (2000) identify three broad approaches that reflect researchers' interests in different perspectives. The Value Model is typical of service value studies and specifies that behavioural intentions are directly influenced by service value and where service value is influenced independently by sacrifice, service quality and satisfaction or a subset of these constructs (Zeithaml, 1988; Cronin et al., 1997).

In the Satisfaction Model behavioural intentions are directly influenced by satisfaction and where this construct is simultaneously influenced by service value and service quality, and where service value is simultaneously influenced by sacrifice and service quality (Cronin and Taylor, 1992; Hallowell, 1996; Oliver 1999).

A third model, the Indirect Model reflects a focus on the interaction between service quality, value and satisfaction. Hence there are direct effects on behavioural intentions from value and satisfaction constructs. Value is influenced directly by quality and in turn, has a direct effect on satisfaction. Hence there are indirect effects on behavioural intentions by quality, via value and also via value and satisfaction, and value, via satisfaction (Ennew and Binks, 1999).

Anderson et al. (1994) provide a framework for the estimation of the economic returns arising from the delivery of consumer satisfaction. Evidence in support of the satisfaction-loyalty-profitability relationship is provided by Heskett et al. (1994) and Hallowell (1996). Apart from the application to individual firms, the concept has been extended, for example in the form of the American Consumer Satisfaction Index (ACSI), to industrial sectors or economies (Fornell, 1992). Subsequently, the ACSI inspired the development of the European Consumer Satisfaction Index (ECSI) in association with the European Foundation for Quality Management (EFQM) and the European Academic Network for Customer Oriented Quality Analysis (IFCF). In 1999 a pilot study was implemented in 12 European countries (Kristensen et al., 2001; Cassel and Eklőf, 2001)).

A related development extends the satisfaction-loyalty relationship to include profitability. Loyalty enhances profitability through an increase in the scale and scope of the relationship with loyal customers, lower customer recruitment costs, reduced customer price sensitivity and lower customer servicing costs (Hallowell, 1996). However, Reinartz and Kumar (2002) warn against the assumption that loyalty automatically promotes greater profitability. These authors test four assertions from the customer relationship marketing paradigm, that loyal customers: are more profitable, cost less to serve, pay higher prices; and, act as word-of-mouth marketers. They established that the respective associations between bivariate measures of loyalty with profit, costs, price and marketing activity were generally ‘weak’ to ‘moderate’.

The authors attribute these results to the ‘crude’ nature of loyalty measurement that typically employs recency-frequency-monetary value criteria. Alternatively, they propose the use of event history modelling, which establishes the probability of purchase over future time periods and subsequently segments customers into four categories (‘Buterflies’: short term loyalty/high profitability; ‘Strangers’: short-term loyalty/low profitability; ‘True-friends’: long-term loyalty/high profitability; and ‘Barnacles’: long-term loyalty/low profitability) according to profitability (high/low) and loyalty (short-term/long-term). Hence they are able to propose management strategies for each segment.

3 METHODOLOGY

The research methodology employed a mail survey to investigate mail-order shoppers' characteristics, attitudes, preferences and behaviour. It was implemented as a national (UK) survey of (3,052) customer contacts supplied by five mail-order speciality food companies located in Cumbria, Northumberland and the Scottish Borders region. The sample frame consisted of names and addresses supplied by these companies. The sampling method employed a stratified random sample based upon the relative sizes of the firms' contact lists. Subsequently the survey yielded 1,639 valid responses, representing a response rate of 54 per cent.

It should be emphasised that the sample frame consisted of names and addresses of contacts, comprising existing customers and potential customer contacts from various sources such as exhibitions, trade fairs and from general enquiries. The firms did not have access to the type of customer databases that are recognised in the direct marketing literature as a key aspect of direct marketing and which would typically contain demographic, lifestyle and behavioural information to provide for detailed analysis (McCorkell, 1997).

The respondents were classified as "Active" or "Non-active" mail-order customers according to the recency of their last orders. The "Active" group comprised 1,030 respondents who had shopped for speciality food using mail-order during the previous 12 months whilst the "Non-active" group comprised 609 respondents who had not purchased food by mail-order during the same period. Whilst the questionnaire design incorporated questions addressed to both groups, the research reported within this study focuses only on the "Active" group, since this group had experience of speciality mail-order products and were thus equipped to express their evaluations on the various scales. This approach follows the notion that customer experience is an essential requirement in the analysis of satisfaction assessments (Bolton and Drew, 1991; Cronin and Taylor, 1994; Parasuraman et al., 1988).

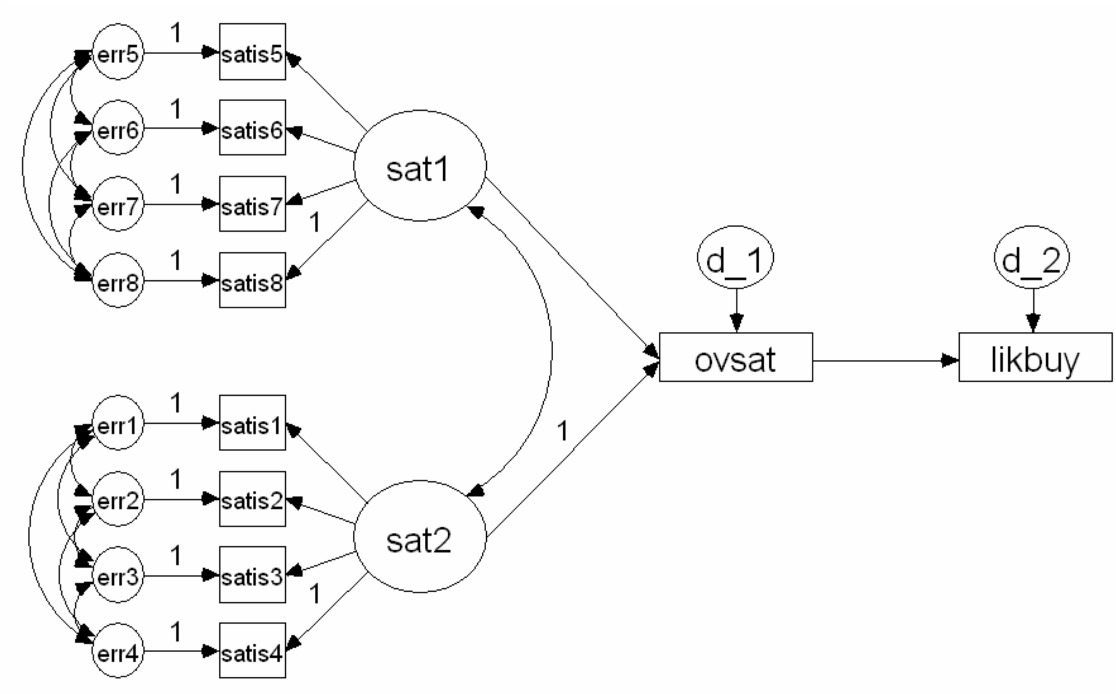
4 MEASURES

Although there are no directly comparable studies, this study is broadly consistent with existing satisfaction literature (Cronin and Taylor, 1992; Anderson and Fornell, 1994; Hallowell, 1996; Bolton, 1998; Oliver, 1999; Garbarino and Johnson, 1999; Bolton and Lemon, 1999; Bernhardt et al., 2000). Hence it takes a conventional approach in that re-purchase likelihood is directly influenced by a measure of overall satisfaction that in turn is influenced by a construct to represent transaction satisfaction associated with the attributes of mail order speciality foods. The measures of the attribute satisfaction construct were identified from in-depth discussions with managers and proprietors of mail-order firms and follow the approach of Biong (1993) in principle. The approach is parsimonious in that in likelihood of purchase can be traced to actionable attributes associated with mail-order speciality food and that are relevant to customers’ encounters with mail-order transactions within the speciality food sector. The structural model is presented in Figure 1.

The eight effective indicators of the transaction satisfaction construct are concerned respectively with enquiry service (satis1), product selection (satis2), product quality (satis3), price (satis4), catalogue presentation (satis5), delivery service (satis6), ordering process (satis7) and payment terms (satis8). The response measures are defined as overall satisfaction (ovsat) with mail-order and the likelihood of future purchase (likbuy).

The levels of transaction satisfactions are measured as five-point scales (1 = Very satisfied, 5 = Very dissatisfied) for each of the eight satisfaction variables. Overall satisfaction is measured as a separate entity on the same basis. Likelihood of future purchase is measured on a 5 point scale (1 = Definitely would buy, 5 = Definitely would not buy).

Figure 1: Structural Equation Model



5 EMPIRICAL RESULTS

Each of the measures are analysed in the first instance using univariate analysis of the 10 measures in terms of frequencies and mean scores. Following this correlation analysis of the measures is presented. Exploratory factor analysis is applied to the eight measures that comprise the transactions satisfaction construct and the resulting factor structure is assessed using confirmatory factor analysis. Finally a structural equation model to analyse the relationships between the construct and measures is estimated. Univariate analysis, correlation analysis and exploratory factor analysis are conducted using SPSS (2003) while confirmatory factor analysis and structural equation modelling are conducted using AMOS (Amos, 2005).

Analysis of satisfaction attributes

The percentage distributions of responses for the eight satisfaction attributes are presented in Table 1. From the perspective of the proportion of customers who are very satisfied mail-order speciality food firms have been relatively more successful in delivering satisfaction with respect to product quality, delivery service, enquiry service and selection of products available. They have been least successful with respect to the order process, payment terms, catalogue presentation and price. Price is the least satisfactory aspect with only 10 per cent of customers who are very satisfied. However, this is not surprising, given the nature of these foods, which generally carry price premia, and with respect to the high levels of satisfaction with quality that indicates that it is value for money which customers evaluate.

Table 1: Frequencies and Means for Satisfaction and Purchase Likelihood Measures

Satisfaction	**Satisfaction (Percentage response)**						**Mean rating**
	Very satisfied	**Satisfied**	**Somewhat satisfied**	**Dissatisfied**	**Very dissatisfied**	**Total**	
Enquiry service	38.7	52.2	8.4	0.7	0.0	100	1.71
Product selection	37.6	55.1	6.9	0.4	0.0	100	1.70
Product quality	51.4	42.3	5.9	0.3	0.1	100	1.55
Price	10.0	52.8	29.4	7.2	0.6	100	2.36
Catalogue presentation	23.4	58.4	16.5	1.6	0.2	100	1.97
Delivery service	43.6	44.5	9.2	2.2	0.6	100	1.72
Ordering process	37.3	55.0	7.2	0.4	0.1	100	1.71
Payment terms	27.6	60.5	10.8	0.9	0.1	100	1.85
Overall satisfaction	36.5	56.3	6.6	0.3	0.3	100	1.72
	Purchase likelihood (Percentage response)						
Future purchase likelihood	Definitely	Likely	Not sure	Not likely	Definitely not	Total	Mean rating
Likelihood rating:	58.5	35.0	4.7	1.7	0.1	100	1.50

Notes: Sample size (N) = 1028-1030 according to the presence of missing values in the data

Consideration of the two most favourable rating categories (Satisfied and Very satisfied) indicates that for each item the major proportion of customers are at least satisfied with all eight aspects of satisfaction. For example, 94 per cent of respondents are either satisfied or very satisfied with product quality and 93 per cent are at least satisfied with product selection. The least satisfactory aspect is associated with price where 63 per cent of respondents are at least satisfied but this still represents a majority attitude. On the basis of mean scores it is product quality, product selection and the order process which are more highly rated.

Analysis of overall satisfaction and likelihood of purchase

Following from this, consideration of overall satisfaction reveals that whilst a little more than one third of mail-order speciality food customers are very satisfied, 93 per cent are either satisfied or very satisfied (Table 1).

With respect to future purchase intentions, nearly 60 per cent of mail-order food shoppers definitely intend to repeat their purchases of mail order speciality food in the future while 35 per cent indicate they are likely to purchase again (Table 1). Consequently, the results indicate that mail-order appears to deliver high levels of satisfaction to match or exceed customers' expectations and that a high proportion of customers intend to repurchase.

Correlation analysis

The ultimate aim of the analysis is to examine the rationale of assuming that future purchase intentions can be associated with overall satisfaction and in turn, that overall satisfaction is associated with a satisfaction (with the features of mail-order) construct that is composed of eight indicators. Thus as a preliminary step the simple correlation coefficients for these sets of variables are examined (Table 2). Statistical tests, based upon the null hypothesis that the population correlation coefficient is equal to zero, indicate that all correlations are significantly different from zero at the 1 per cent significance level.

There is a significant positive association between overall satisfaction and purchase likelihood. Furthermore, there are significant correlations between overall satisfaction and all eight satisfaction attribute variables but, in descending order of magnitude, it is associated with the order process, product quality, deliver service, payment terms, product selection, enquiry service, price and catalogue presentation. The correlations between future purchase intentions and the satisfaction attributes are generally weaker, though significant, but it is more strongly associated with product quality, enquiry service, order process and price.

Table 2: Correlation Matrix

Variable	Variable[1]									
	satis1	**satis2**	**satis3**	**satis4**	**satis5**	**satis6**	**satis7**	**satis8**	**ovsat**	**likbuy**
satis1	1.000									
satis2	0.480**	1.000								
satis3	0.390**	0.581**	1.000							
satis4	0.297**	0.366**	0.412**	1.000						
satis5	0.363**	0.348**	0.257**	0.363**	1.000					
satis6	0.318**	0.254**	0.317**	0.304**	0.340**	1.000				
satis7	0.480**	0.356**	0.353**	0.297**	0.409**	0.588**	1.000			
satis8	0.377**	0.266**	0.258**	0.374**	0.396**	0.456**	0.627**	1.000		
ovsat	0.465**	0.466**	0.517**	0.437**	0.425**	0.500**	0.550**	0.492**	1.000	
likbuy	0.309**	0.286**	0.376**	0.299**	0.235**	0.217**	0.298**	0.208**	0.452**	1.000

Notes:

1. Variables are defined as follows:
   satis1 = enquiry service; satis2 = product selection; satis3 = product quality; satis4 = price;
   satis5 = catalogue presentation; satis6 = delivery service; satis7 = ordering process; satis8 = payment terms
   ovsat = overall satisfaction; likbuy = likelihood of future purchase.
2. ** Indicates correlation is significant at the 0.01 level (two-tailed test)
3. Sample size (N) = 1028Exploratory Factor Analysis of the Satisfaction Construct

Exploratory Factor Analysis of the Satisfaction Construct

Factor analysis of the eight-item satisfaction construct employed the extraction procedure of principal components with Varimax rotation. The criterion used to determine the number of factors was based upon the derivation of factors with an eigenvalue greater than unity.

A two-factor solution was derived (Table 3). Bartlett's test of sphericity lead to a rejection of the null hypothesis, that the data are not correlated ($\chi2$ (28) = 2225.463, p < .001), while the KMO index of 0.827 is, according to Kaiser's classification, 'meritorious' (Kaiser 1974). The two factors account for 59% of total variance and the communalities are generally respectable although those associated with catalogue presentation (0.410) and price (0.411) is rather low. The first factor (sat1) is associated with ordering process (0.819), payment terms (0.801), delivery service (0.762) and catalogue presentation (0.537) and is defined as service satisfaction. The second factor (sat2) is associated with product selection (0.833), product quality (0.827), price (0.553) and enquiry service (0.520) and is defined as product satisfaction.

Table 3: Satisfaction Construct: Exploratory Factor Analysis

Attribute	Factor Number		h2
	1	2	
Enquiry service	.442	.520	.466
Product selection	.135	.833	.712
Product quality	.124	.827	.699
Price	.324	.553	.411
Catalogue presentation	.537	.350	.410
Delivery service	.762	.121	.596
Ordering process	.819	.252	.734
Payment terms	.801	.161	.667
Eigenvalue	2.514	2.180	
Variance (%)	31.429	27.253	
Cumulative variance (%)	31.249	58.682	

Notes:

1. h2 refers to communality
2. Sample size (N) = 1028

Confirmatory Factor Analysis of the Satisfaction Construct

The results of confirmatory factor analysis are presented in Table 4. The non-constrained regression weights linking the sub-constructs or factors and their associated measures are all statistically significant. The covariance between the two sub-constructs service satisfaction (sat1) and product satisfaction (sat2) is positive and significant and is associated with a correlation of 0.674.

Table 4: Satisfaction Construct: Confirmatory Factor Analysis

Structural Relation	Regression Weight	Standard Error	Critical Ratio	Standard Weight	Squared Multiple Correlation
satis1 ← sat2	0.921	0.069	13.444	0.615	0.378
satis2 ← sat2	1.027	0.070	14.761	0.727	0.528
satis3 ← sat2	1.053	0.071	14.796	0.726	0.527
satis4 ← sat2	1.000	na	na	0.554	0.307
satis5 ← sat1	0.786	0.053	14.924	0.529	0.279
satis6 ← sat1	1.113	0.058	19.034	0.673	0.453
satis7 ← sat1	1.146	0.052	22.164	0.855	0.730
satis8 ← sat1	1.000	na	na	0.727	0.528
sat1 ↔ sat2	0.136	0.012	10.978	0.674	na
Chi-Square	$\chi2(19) = 216.179$, $P = 0.000$				
Model	**RMSEA**	**TLI**	**IFI**	**CFI**	
Default	0.080	0.848	0.921	0.920	
Saturated	na	na	1.000	1.000	
Independence	0.205	0.000	0.000	0.000	

Notes:

1. Variables are defined as follows:
   satis1 = enquiry service; satis2 = product selection; satis3 = product quality; satis4 = price; satis5 = catalogue presentation; satis6 = delivery service; satis7 = ordering process; satis8 = payment terms; sat1 = factor 1 (service satisfaction), sat2 = factor 2 (product satisfaction)
2. Sample size (N) = 1028.

Structural Equation Model

The structural equation model follows conventional linkages between satisfaction constructs, overall satisfaction and likelihood of future purchase. The model employed maximum likelihood estimation because of the presence of missing values in the data. Two versions of the model were estimated. Version 1 revealed a significant covariance between service and product satisfaction constructs of 0.136 so that Version 2 imposed a constraint between them. The estimated relationships are presented in Table 5

Table 5: Estimated Structural Equation Model

Structural Relation	Regression Weight	Standard Error	Critical Ratio	Standard Weight	Squared Multiple Correlation
ovsat ← sat1	1.605	0.108	14.904	0.891	0.794
ovsat ← sat2	1.000	na	na	0.608	na
satis1 ← sat2	1.032	0.061	16.807	0.624	0.291
satis2 ← sat2	1.089	0.058	18.645	0.697	0.279
satis3 ← sat2	1.158	0.060	19.298	0.721	0.342
satis4 ← sat2	1.000	na	na	0.517	0.254
satis5 ← sat1	0.788	0.049	15.984	0.543	0.239
satis6 ← sat1	1.111	0.054	20.745	0.688	0.322
satis7 ← sat1	1.110	0.045	24.932	0.845	0.393
satis8 ← sat1	1.000	na	na	0.739	0.464
sat1 < -- > sat2	0.136	na	na	0.719	na
likbuy ← ovsat	0.497	0.029	16.950	0.473	0.215
Goodness of Fit Measures					
Absolute	**Incremental**				
Chi-Square	**Model**	**RMSEA**	**TLI**	**IFI**	**CFI**
$\chi2 = 69.359$	Def	0.069	0.877	0.922	0.922
df =17	Sat	na	na	1.000	1.000
P = 0.000	Indep	0.196	0.000	0.000	0.000

Notes:

1. Variables are defined as follows:
   satis1 = enquiry service; satis2 = product selection; satis3 = product quality; satis4 = price; satis5 = catalogue presentation; satis6 = delivery service; satis7 = ordering process; satis8 = payment terms; ovsat = overall satisfaction; likbuy = likelihood of future purchase; sat1 = service satisfaction; sat2 = product satisfaction.
2. Sample size (N) = 1028

The goodness of fit measures presented in the table generally follow the recommendations of Hoyle and Panter (1995) except for the inclusion of root mean square error of approximation (RMSEA). The chi-square measure of discrepancy tests how much the implied and sample covariance matrices differ under the null hypothesis that they do not. The results of the test indicate a rejection of the null hypothesis, which does not auger well for the proposed model. However, Hu and Bentler (1995: 78) suggest that the test may not be a good enough guide to model adequacy because of model mis-specification, the power of the test, or violation of some technical assumptions underlying the test (Hu and Bentler 1995: 77-8).

In the case of the model examined here it is highly likely that this is associated with the large sample size (1028). Hair et al. (1998) report that if the sample size becomes large enough significant differences will be found for any specified model. Hence they suggest that the test is not reliable outside the sample range of 100-200 observations. However, it is also likely that the technical assumptions underlying the test have been violated.

Given this situation, goodness of fit is also indicated by root mean square error of association (RMSEA) that is recommended as an alternative to the chi-square test in the case of large samples (Hair et al. 1998), and three type 2 indices suggested by Hoyle and Panter (1995); Tucker-Lewis index (TLI), incremental fit index (IFI), and comparative fit index (CFI). RMSEA lies below the upper threshold value of .080 regarded as ‘reasonable’ by Brown and Cudeck (1993) while values of TLI, IFI and CFI approximate to the lower threshold of 0.9 suggested by Hair et al. (1998).

For the measurement models, the reliability of the indicators of the satisfaction sub-constructs is conducted using the Reliability procedure within SPSS (SPSS, 2005). This yielded Cronbach alpha coefficients of 0.768 for service satisfaction (sat1) and 0.723 for product satisfaction’ (sat2). Both coefficients exceed the acceptable threshold level of 0.7 suggested by Nunally (1978). The respective construct reliabilities (CR) of these sub-constructs are 0.801 and 0.737, which are above the threshold level of 0.7 suggested by Hair et al. (1998). The respective variances extracted (VE) are 0.507 and 0.416 compared to a threshold value 0.5 suggested by the same authors, so that the VE for product satisfaction is disappointing.

With respect to the structural model service satisfaction (sat1) and product satisfaction (sat2) have a strong positive effect on overall satisfaction (ovsat) and explain 79 per cent of the variance of this measure. The regression weight of product satisfaction (sat2) was constrained to unity to achieve identification of the model but the coefficient of service satisfaction (sat1) is highly significant. Overall satisfaction (ovsat) has a moderately positive effect on future purchase intentions (likbuy) but only manages to explain 22 per cent of the variance of this dependent measure. The coefficient is also highly significant. Examination of the standard coefficients reveals that service satisfaction (sat1) has a stronger impact on overall satisfaction (ovsat) compared to product satisfaction (sat2) and that overall satisfaction (ovsat) has a comparatively weaker impact on future purchase intentions (likbuy).

Examination of the relations between the two satisfaction constructs and their respective measures reveals that all non-constrained coefficients are highly significant. For service satisfaction (sat1) the relative importance of measure’s coefficients indicates that the highest associations in descending order of importance are product quality, product selection, enquiry service, and price. For product satisfaction (sat2) the highest associations are ranked in descending order as ordering processes, payment terms, delivery service and, catalogue presentation.

6 SUMMARY AND CONCLUSIONS

The study set out to analyse customer satisfaction in terms of eight satisfaction attributes, a measure of overall satisfaction and likelihood of future purchase.

The initial analysis considered analysis of individual scale items. The implications of this analysis for mail-order speciality food businesses depend very much on the perspective that is taken. From the perspective of the proportion of customers who are very satisfied there is concern because only in the case of product quality are a majority of customers very satisfied. Thus it appears that mail-order speciality food firms should pay attention to all other aspects of mail-order operations.

On the other hand, if the criterion is to consider customers who are at least satisfied, satisfied or very satisfied, there is more cause for an optimistic stance. Analysis of the eight-item satisfaction scale reveals high levels of satisfaction with the eight attributes, especially with respect to product quality, delivery service and enquiry service.

Thus it is not surprising that consideration of overall satisfaction reveals that 93 per cent of mail-order speciality food shoppers are either satisfied or very satisfied. With respect to future purchase intentions, nearly 60 per cent of mail-order food shoppers definitely intend to repeat their purchases in the future. Consequently, the results indicate that mail-order appears to deliver high levels of satisfaction that matches or exceeds customers' expectations and that a high proportion of customers intend to purchase in the future.

Simple correlation analysis reveals that there are significant correlations between overall satisfaction and likelihood of future purchase and that each of these variables are significantly correlated with each of the eight items of the satisfaction attributes.

The results of the SEM show that it is possible to establish credible inter-relationships between the sub-constructs of transaction satisfaction with mail order, overall satisfaction, and re-purchase intentions. The measures of fit are acceptable and all free parameters are strongly significant. Satisfaction with the transactions of mail order has a strong association with overall satisfaction. However, higher levels of overall satisfaction have a weaker association with intentions to re-purchase. The structural relations indicate that both product and service aspects of the mail-order transaction have strong associations with overall satisfaction, but satisfaction with the service transaction is more important. Consequently, the message to mail-order firms is that they need to expand their vision of their respective businesses beyond that of a food delivered by post. After all, some speciality food products are available in speciality stores but it is the high level of customer care and service that differentiates the mail-order product from the in-store equivalent. The most important message is that satisfaction and hence re-purchase likelihood are dependent on integrated features of both product and service aspects of the mail order business.

The results are consistent with current emphasis on building customer satisfaction and loyalty, which is envisaged as a goal and a key element in the achievement of company objectives, through service aspects of the marketing mix. They are broadly compatible with the results of other studies applied to other sectors that identify the positive link between satisfaction and response (Hallowell, 1996; Bolton, 1998; Oliver, 1999; Garbarino and Johnson, 1999; Bolton and Lemon, 1999; Bernhardt et al., 2000). Hence the most important aspects of customer satisfaction revealed in this study can be associated with those service marketing elements concerned with physical evidence (catalogue presentation, product quality, product selection), process (order process, delivery service, payment terms) and people (enquiry service).

The study reported here is regarded as an exploratory study which could be elaborated in further work that focuses uniquely on the issue of satisfaction and loyalty. The model is set in the context of the satisfaction literature rather than a more general Q-V-S framework. The model excluded constructs of sacrifice, quality, and value and so assumes that these issues are incorporated in the transactions and overall measures of satisfaction. Further extensions of this approach could employ multiple measures of both overall satisfaction and behavioural intentions.

There would appear to be some justification for the exclusion of the perceived quality and perceived value constructs. Some studies have questioned whether they are synonymous or distinct, since they tend to be highly correlated such that some studies have failed to establish discriminant validity between them (Dabholkar, 1993; Oliver, 1993). However it should be noted that Dabhollkar et al. (2000) regard them as distinct but highly correlated.

According to Cronin et al. (2000), the omission of the constructs of sacrifice, quality and value excludes the possibility of exploring the impact that these constructs have on behavioural intentions, and more complex relations that emerge from both indirect and direct effects. Hence, a more ambitious extension in further work could employ a more comprehensive framework to include the constructs of sacrifice, perceived risk and perceived quality in addition to satisfaction.

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Int. Journal of Business Science and Applied Management, Vol 1, Issue 1, 2006

Effects of IT Maturity and Freedom of Choice regarding relations between the Service Provider and its clients

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Abstract

The roles of the public servants seem to change towards increased service attitudes influenced by degree of IT Maturity and towards increased degree of problem solving influenced by increased degree of freedom in action. The quality of communication seems to be mainly influenced by the degree of equity between the partners. However, for amateur users increased IT maturity could increase the quality of the communication between the servant and the client. By increased focus on roles and customer needs managers are able to lay a foundation for increased relationship quality and by that increase customer loyalty. Based on three Norwegian case studies the paper is explorative in nature.

Keywords: IT maturity, freedom of choice, relations, roles, communication, needs.

1 INTRODUCTION

IT maturity is defined in this paper as the extent to which the organisation masters and makes use of known IT functions. Information technology is influencing all parts of our society. Digital technology creates new working conditions for all types of work within service production, especially the information part of the service offer. We may talk of a new service logic in which links between the parameters in the service production have been untied as a consequence of the digital technology. Instead of producing the main content in the service offer in front of the client, a consequence of the digital technology is that the main content may be produced and stored in advance and then introduced to the client when needed. Increased IT maturity reduces the transaction costs both for the organisation and the customer. By use of the Internet, transactions could be carried out in an extremely short time. The reduced transaction costs influence the relationship between the supplier and the customer (Williamson, 1975; Amit and Zott, 2001).

In the private sector the technology shift has laid the foundation for what has been described as new business logic (Normann and Ramirez 1994). The working conditions for business have been changed by reduction in transaction costs in production, in partnering and in relations with customers (Williamson, 1998; Normann, 2001). Most studies on relationship quality have been carried out in the private sector. One important result has been the increasing value of the relations between partners and customers (Sawhney and Zabin, 2002).

In the public sector IT maturity will appear through the level of Information System Portals (Holmes, 2001). A higher level of portals forms the basis for E- Government “implementing cost-effective models for citizens, industry, federal employees and other arms of government” (Whitson, 2001: 79). This is done by data software making transactions possible at low costs. A higher level of portals implies increased horizontal organisational forms in a public sector where roles are changing organizations and co-ordination systems (Bannister, 2001; Holmes, 2001). The increased demand for service as the users get the new options provided by the technology stimulates public agencies to cooperate more closely in order to meet this new demand put forward by the users. Within the public sector the effects are linked to cost reduction, reduction in waiting time and increased relationship quality (Gassan et al. 2001). The digital technology will influence the bureaucratic form of the organisation. And the technology will make it easier to create virtual organisational forms in which the public servants will occupy new roles as integrators (Ahuja and Carley, 1999; Normann, 2001; Galbraith, 2002).

The full potential of information technology from the citizen's perspective can only be achieved by horizontally integrated government services across different functional walls (Lagne and Lee, 2001:132). Earlier research has focused on increased pressure from IT maturity on the roles of the public servant (Telem 1999; Holmes 2001). The user will expect increased progression in executive and casework and increased service levels.

New Public Management (NPM) constitutes the background for privatisation of the public services. One part of the NPM focuses on the user and the relations with the service provider (Ogard, 2000). In our era of privatisation of public service it would be important to study combined effects on the relations between the service provider and its clients of both IT maturity and the freedom of choice. To our knowledge this combined effect has not been focused on in earlier research. How do the combined effects of both IT maturity and the freedom of choice influence the relations, the roles and the communication between the service provider and the client?

2 POSSIBLE EFFECTS OF IT MATURITY AND FREEDOM OF CHOICE ON RELATIONSHIP ASPECTS BETWEEN SERVICE PROVIDER AND SERVICE USER / CUSTOMER

The digital technology will have an impact on a range of organisational areas in addition to the relations between the organisation and their users. Increased freedom of choice for the service provider will constitute changed working conditions for the service provider. The service provider could more easily adjust his service to the individual user. In this paper we aim to look at the effects of IT maturity and increased freedom of choice on some of these areas as shown in Table 1.

2.1 Effects on the roles

We assume the relations between the service provider and the service user to be influenced by the roles the servant and the users adopt. The roles linked to both parties will depend on each other since they both are in relation with each other: if the service provider has a bureaucratic role, a passive client role for the user would fit that role. Should the servant role be more oriented towards problem solving, a more professional and active user role would fit into such a role performed by the servant provider.

A role is defined as "A pattern of behaviour structured around specific rights and duties and associated with a particular position with a group or social situation. A person's role in any situation is defined by the set of expectations for his behaviour held by others and by the person himself" (Theodorson and Theodorson, 1969: 352).

Steps toward E-government poses several challenges for agencies and changes in roles could be one of the more important ones (Carlitz and Gunn, 2002).

Easier access to public service as a consequence of the information technology will influence the expectation from the users toward quick individual fitted responses and effects of IT maturity on the roles linked to the public servant are expected to increase the element of service (Telem, 1999; Holmes, 2001). We would expect an increased degree of freedom of action for the public servant to increase the service element in their role since increased freedom of action would imply increased flexibility in service production.

2.2 Effects on form of communication

Enhancement of an organization's communication capabilities may influence the performance of an organization in several ways. In studies, the communication qualities are often used as an independent variable (MacDonald and Smith, 2004, Kurtzberger et al., 2005). Here we aim to focus on how the form of communication could be affected, and as a consequence have communication form as a dependent variable (Andersen, 2001).

Behind every relation there is a form of communication. Braten (1998) makes a distinction between four forms of communication. A high degree of bias from the servant will create a forced situation if the user is highly dependent on the service and a lecturing situation if the user has a low degree of dependence. With a high degree of openness and high user dependence a dialogue form of communication is expected.

Table 1: Typology of communication based on degree of openness and degree of dependence.

		The user's degree of dependence.	
		High	**Low**
The public servant's degree of openness	**Low**	A forced situation. Unequal power.	A lecturing situation
	High	Possible dialogue	Common communication

In *the forced situation* the user has to listen to the public servant who has the right answer.

An example could be a client depending on approval by public authorities when setting up a garage. The transfer of information comes out of a single perspective and the sender has a monopoly on sending the information.

In the *possible dialogue* box we could find undefined limits between the public sectors. There is room for different perspectives. The situation opens up for the two parties to have a corresponding perspective and a balanced dialogue. When the public servant sees the client as a resourceful human being, as when an entrepreneur who is in contact with a servant from the Planning and Building Authorities, a dialogue form of communication could take place.

In *a lecturing situation* we have mass distribution of information; but the user could exit the situation. The situation is characterized of a unilateral perspective in a mass production of information. As an example a student could choose to exit from the situation and the service provider is not much interested in having dialogue with students since there are too many of them.

In *common communication*- both the user and the public servant can exit the situation. This form of communication is mostly used in both ends (start and end) of the communication (Bråten, 1998:101). A conversation of more private character could cover this situation.

Increased IT maturity will increase the number of interactions where both the servant and the user (customer) are using electronic equipment with easy access to various information sources. The positions of the two parties will be more equal and subsequently lay the foundation for an expected increase in the dialogue form of communication.

2.3 Effects on quality of relationships

Fournier (1998) constructed an index variable of relationship quality (Brand Relationships Quality (BRQ)). This concept of relationship quality does not contain the quality on the communication between the service provider and the client. The quality of communication is of importance in order to obtain a deeper understanding of the relations between the service provider and the client. We use parts of Fournier’s index in measuring the relationship quality in three case studies, two of which are public organisations. The relationship quality also depends on the meeting of users’ needs and of service marketing elements linked to customer needs (Freid and Freid, 1995; Sisoda and Wolf, 2000; Mai, Ness 2006). We will implement this variable into our study of the relations between the service provider and the client.

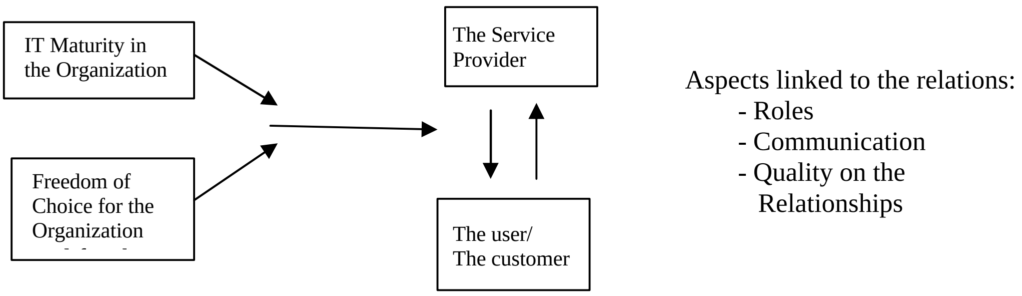
Fournier (1998) focused on relationships to brands and identified 6 main factors for measuring the quality: Love and Passion, Personal Commitment, Intimacy, Behavioural interdependence, Self-concept connection and Partner quality. Other research has shown that the “Personal Commitment” variable does not correspond to the other 5 and should therefore be omitted (Thorbjørnsen et al. 2002).

Others again have focused on qualitative aspects of relationship marketing (Morgan and Hunt, 1994; Sisoda and Wolfe, 2000). This research focuses on the relationships between individuals and organizations and is based on other factors of importance for the quality, such as confidence, communication and empathy. These variables could be dependent variables (Ferrin at al., 2006) but we will use some of these factors to create a measurement for quality of relationships in our cases.

3 RESEARCH QUESTIONS

Figure 1 shows our research questions. How will a combined effect of IT maturity and freedom of choice influence central aspects linked to the relationship between the service provider and the user/ customer?

Figure 1: Our research questions



Do IT maturity and freedom of choice have effects on the roles of both the user and the public servant? In what ways are the communication and the quality of relationship affected? What are the effects of meeting of needs on the quality of the relationship between the servant and the user?

Figure 1 illustrates our research questions. We focus on the relationship between the service provider and the user. What are the possible effects on the roles performed both by servants and users? How is the communication between the two parties affected? And how is the quality of the relationship influenced? How are these aspects of relationship affected by increasing IT maturity when we consider freedom of choice, for both the organisation and the user?

IT maturity and freedom of choice are most likely connected. An increase in IT maturity would probably lead to an increase in freedom of choice since transaction costs are reduced. Services could more easily be obtained by the users by the use of Internet. For the organizations Internet would ease the transactions between public agencies and between public and private agencies. When we have only three organisations as units for analysis we are not able to distinguish between the effects of each of these independent variables. We assume a combined effect as illustrated in Table 1. However, when we study the quality of the relationship from the user's point of view we are able to discern the effects from these two independent variables.

4 METHODOLOGY

We have chosen to address our research questions by using case studies (Yin 1989). The conclusions drawn from case studies are analytical towards theory, in contrast to surveys, where conclusions can be generalized to the population. We selected three cases that represent a variation of our two main independent variables; IT Maturity and Freedom of choice. One case has a low score on both variables (CW), one case has high score on freedom of choice and medium to high on IT maturity (TET), and the third case has a high score on IT maturity and low on freedom of choice.

We have interviewed the Chairman of the Board and the Administrative Leader in all three cases. In addition we employed surveys partly by e- mail and partly by post to investigate the user's attitudes, preferences and experiences.

4.1 The cases

The first case is TET AS, which was established in 2002, as the Technical Department of Vest-Agder Fylkeskommune, i.e. the County Municipality. However, it was outsourced, as a private company (owned by the local authorities) in 2002. The fields of business were purchase, building and estate management. TET has corporations with a number of private companies. By this TET has expanded its offering to new fields of business such as E- commerce. The company had 30 employees, and has now been sold.

The second case is the Technical Department of Kristiansand (borough) municipality, - Section of Planning and Building (PB). PB is participating in a national program for development of electronic solutions for applicants applying for new or changed buildings and plan production. PB has 32 employees.

The third case is the child welfare services in Kristiansand municipality (CW). CW has the responsibility for making preventive efforts for individuals according to the Act of children welfare. CW has both a controlling and a helping function. CW had 210 children in various institutions and 60 employees.

PB and CW represent public service providers, and TET represents the private dimension**.**

4.2 The samples

We have obtained questionnaire data from 80 respondents. These are spread over the cases as follows: TET 22, PB 35 and BW 23 respondents. The data were collected in early 2004.

We have data from six small samples, one sample from TET, two from PB and three from CW. From TET the sample frame consisted of names, addresses and e- mail addresses to 39 firms which were their customers. A questionnaire was sent out by e- mail and after three reminders we got 22 answers, representing a response rate of 56 per cent.

From PB we had two samples, one consisting of entrepreneurs (business people) and one consisting of individual applicants. We got a samples frame containing 19 entrepreneurs (firms) and another sample frame containing 45 individual applicants. From the 19 firms we got 16 questionnaires back on e- mail, representing a response rate of 84 per cent. From the list of individual applicants we got 19 questionnaires by post, (we had no e- mail addresses), representing a response rate of 40 per cent.

It was CW who was responsible for drawing the samples from the sample frames and sending out the questionnaire by post. The enclosed return envelope was addressed to us. In a group of young people over 15 years, 15 respondents were selected and only 3 questionnaires were returned. In a group of parents 27 were selected by CW and only 6 questionnaires were returned. The response rate was only 22 per cent. In a group of foster parents 28 were selected and 14 questionnaires were returned, representing a response rate of 50%:

The general response rate for the professionals (companies) is 66 per cent, but for the individual applicants the general response rate is only 37 per cent. The low response rate from the individual applicants in CW and PB may be partly due to the contact method, i.e. by post. When contacting the professional users we were able to use e-mail. By professional users we mean firms (companies) who are dealing with TET or PB as part of their business.

We can not generalize from this group of individual respondents to the population of individual applicants in the building sector or individuals in the childcare service, but hold firm to our qualitative case study approach making analytical conclusions. In some of our analysis we created a data file containing all our respondents (n= 80).

5 ANALYSES

Possible effects of IT maturity and freedom of choice:

5.1 On the roles

We used five indicators to define the types of roles in our three organizations. The administrative leaders answered the following five questions:

1. How would you describe the role of the servants (the expectations the clients have of the employee and the expectations the employee has of himself)?
2. To what degree have the clients experienced problems because rules made the service less flexible?
3. To what degree would you characterise the staff as bureaucratic?
4. To what degree would you say the service production is based on professional standards?
5. To what extent is the service characterised as a service arena with high degree of power to the employees?

Effects on the roles

According to interviews with the administrative leaders the two cases with the highest IT maturity have partially more active users. In the private case, TET, they have a deliberate policy of inviting users to participate in the service production. The PB policy is not that intentional, but the professional users are included in the process of service production in dialogue with the public servant.

Most of the roles are varied, covering more than one aspect.

In the building projects field the PB bureaucrats also act as mediator. The users also influence the roles in this organisation. When professional users appear, the servant role shifts to a dialogue form of communication with a higher degree of mediator in the role. With individual amateurs as users the employee role is more bureaucratic, seeing the user as a client.

In the child welfare organisation the servant's roles are in conflict. These conflicts appear when the servant simultaneously performs two roles: both helper and controller. The field of helping parents is characterised as a service arena (Bleklie, 1997) where the servant has power and authority. Here the users have the role as clients. The servant roles in the other two fields, foster home and preventive work, are both bureaucratic and professional, and bureaucratic with dialogue.

The bureaucratic role is not only present in our two public cases, but also in the private case, TET, and their field of E- commerce. In this field, contracts have been made. In the E-commerce field, however, the role is much more bureaucratic since the contract agreed upon sets the limitations for further actions. Further dialogue is based on this contract. A bureaucratic role in this field means sticking to the contract. But in TET, the privatised organisation, the normal role is a delivery role, that of a problem solver and of a process leader. Some of the expected effects of IT maturity are that the servants' role will become more service-oriented and the users will be more active and professional.

Consequently, with the exception of the contracts linked to the E- commerce field, it seems that TET, with high IT maturity and higher degree of freedom of choice, to a higher extent than the other two public cases, have roles implying service and problem solving for their users.

5.2 Effects on the form of communication

Our research question asked whether the form of communication between the servant and the user took place as a dialogue as the IT maturity and freedom of choice increased.

We have two indicators of the dialogue form of communication.

1. When you consider the communication the servants usually have with the users, to what extent would you say it is a balanced dialogue?
2. Do you think increased use of IT solutions could result in increased degree of dialogue in the communication or don't you think increased IT use will have any such effects?

Question 1(A balanced dialogue?)

The administrative leaders are answering.

Our data show the dialogue form of communication in different service arenas in our three cases regardless of IT maturity. The variation in the communication forms seems more influenced by the structure of power between the servant and the user than by the IT maturity in the service arena. The dialogue form seems to imply higher degree of equality between the servant and the user than what we find in parts of the local authority administration.

We find the dialogue form of communication in the planning areas in PB, in the building service arena in TET and in the foster home arena in CW.

However, the dialogue form seems to disappear when there is unequal power and dependence between the servant and the user.

- With professional users I would say we have a dialogue, but with private individuals we have more the role of a teacher toward a pupil (Building applications in PB).
- In building projects it is really a game for power (TET).
- With children and parents we do not have a dialogue since there always will be a power aspect in the communication (CW).

Question 2 (Effects of IT maturity)

The administrative leaders are answering.

In the areas where the dialogue form is found today no changes are expected, but in other areas an increase in the dialogue form of the communication is expected as the IT maturity increases.

- Increased use of IT could lead to information being more accessible, but as a part of the dialogue in communication it would have low significance, (The planning arenas in PB).
- I believe it would have a significant effect (The field of building construction in PB). Generally I believe so, but it is the people who are most important in addition to the ability and motivation to listen and take each other seriously. I do believe in using IT as a tool for dialogue in communication and will work for it in all our arenas, (TET).
- I believe increased use of IT will have a significant effect in increasing the dialogue form in the communications (CW).

To the extent IT solutions are creating more equity between the supplier and the user these findings indicate increased form of dialogue in the communication between the two parties.

The dialogue form of communication seems to be determined by certain equity in the relationship as seen by the administrative leaders. This was apparent in the planning fields in PB, the purchase and contract administration in TET, and the field of foster home in CW. These findings seem to be in accordance with the theory of communication (Bråten 1998). In areas in which amateurs are in contact we believe that an increased application of IT will strengthen the possibilities for dialogue in communication.

Analyses of the users

The respondents were asked to express their view on a scale ranging from 1 to 7 (to what extent they agreed with the statement).

1. When I communicate with a servant from TET/PB/CW we have an equal dialogue. An ANOVA analysis shows no significant differences between the groups of respondents.
2. I find it easy to communicate with a representative for TET/ PB/CW.

An ANOVA analysis of the data shows no significant difference between the users in our cases with respect to equal dialogue and easy communication, but CW with market bureaucratic and client roles do have the lowest score on both indicators.

To sum up the effects on the form of communication

The results from our small collection of samples do not contradict the conclusion we presented, based on the interviews with the administrative leaders. The dialogue form of communication seems to be more a result of equity in the relationship between the servant and the user than a result of IT maturity. A reduction in transaction costs, as a result of increased IT maturity, could make the positions of the servant and the user more equal, and by that establish the condition for increased use of a dialogue form of communication.

5.3. Does the perception of having the needs met influence the quality of relations?

The relations quality depends on the meeting of the users needs (Freid & Freid, 1995; Sisodia & Wolfe, 2000). The users' needs are composed of various elements. Let us take the example of elderly citizens. They need practical help, social contact and medical safety (Ohldiech ed.1985).

We asked the administrative leaders of the two cases in the public sector to tell us what sort of needs they aimed for in addressing their service production. Then we asked the users to rate the service in each of the appointed areas on a scale from 1 to 7.

We asked the respondents in TET how they felt TET covered their needs.

- Within the areas where TET is working I feel they cover my needs completely.

They answered on a scale from 1 to 7 to what extent they agreed with the statement. The other two cases also have this indicator, but in addition they have more specific indicators on specific needs.

An ANOVA analysis shows the difference in score between the users was small and not significant, but the users in CW gave the lowest score.

Measuring how needs were met.

In the two public cases we asked the administrative leaders what sort of need their service was covering for the users.

As an example for PB the following needs were presented:

- The need for practical help
- The need for information about possibilities and limitations
- The need to decide/for making decisions
- The need for predictability

We established an index variable for the covering of needs based on these indicators and a self-evaluation of how well their needs were met by the service.

We performed a factor analysis for PB respondents with the 5 variables as indicator of how needs were met. We got only one component. Subsequently we performed a reliability analysis on these five factors and the $\alpha = 0.86$. The average score for the professional in PB and individual applicants were:

Table 2: Means score in the index variable for the covering of needs (PB)

	Means	
Professionals	20.3	(n=16)
Individuals	24.2	(n=19)

The difference is significant (ANOVA), $p = 0.04$ indicating the individual applicants are more satisfied with the covering of needs in PB than the professionals. This could imply the professionals have higher expectations than the individual applicants.

5.4 Explaining the variation in the quality of the relationship

A regression analysis will assist us in the investigation of the variables representing assumptions on relationship quality: Communication Quality, the Covering of Needs, Freedom of Choice and IT Maturity.

Table 3: Statistical results from the regression analysis with quality of the relationship as dependent variable.

Variables in Equation	Beta value	T-value	Sig.(p)
Communication quality	0.40	3.6	0.001
Covering of needs	0.45	4.0	p < 0.001
Freedom	0.05	0.6	0.575 n.s
IT Maturity	-0.06	-0.8	0.440 n.s

Sample size (N) = 80, $R^2 = 0.57$, p < 0,001.

Table 3 shows two significant variables and two not significant variables.

In this study there is no effect (not significant) of IT maturity and freedom of choice as regards the quality of relationship between the user and the servant as seen by the users.

However, there are significant effects of the quality on the communication and the experienced covering of needs. The communication quality result is not surprising (Morgan & Hunt, 1994), but results from covering of needs was new to this type of research.

5.5. Summing up the main findings

We asked:

Do IT maturity and freedom of choice have effects on both the user and the public servant roles? In what way are the communication and the quality of the relationship affected? What are the effects of covering of needs on the quality on the relationship between the servant and the user?

We found:

The roles

IT maturity and the freedom of choice seem to influence the roles of the interacting parties.

The servants' roles are varied, but seem to be more service oriented. Our private case with a higher degree of freedom had roles with problem solving aspects, and an increased degree of freedom for the public organisations could lead them in the same direction. Servants with conflicting roles could not expect increased IT maturity to relieve them from the conflict in their role. Only organizational changes could make changes in the same roles.

The roles of the users will probably change to a higher degree of professionalism, and with increased degree of freedom for the public organizations the role of the user could be more active, as shown in our private case.

Communication

The form of communication seems to be more influenced by equity in the relationship than by IT maturity. Reduced transaction costs will also influence the users and create lower costs linked to access and increased possibilities for the servant to give flexible answers. In this way increased IT maturity could create more equity between the public servants and their users and thus increase the possibilities for a dialogue form of communication.

Quality of the relationship

The degree of covering the users' needs and the quality of communication between the parties could best explain the quality of the relations between the public servants and their users. Theories on relations quality in the public sector should include relational factors such as degree of equity regarding the relations and the extent to which the user feels that his needs are covered. In relation to one service provider the users do have a structure of needs and it is important to know the structure of the needs to be able to influence the quality of the relations. Increased quality of the communication between the parties could also have a positive effect on the quality on the relations. IT maturity could influence equity between the parties and thus the form of communication, the covering of needs and the quality of the relations.

6 CONCLUSIONS

Designers of IT based systems in the Public Sector should focus on the specific needs to be covered (E -Government). The covering of specific needs for the users of the public service is the main factor for improving and creating a high quality of the relations between the parties. The design of the service production should be based on knowledge of the dimensions in the needs.

The more service-oriented systems the designers would like to create, the more service-minded and problem-solving roles should be created. The political leaders should trust the public service agencies, and assess them on their results (including the fulfilment of rules for the service). Such a degree of freedom would promote problem-solving roles among the public servants. The attitudes of the public servants should be changed towards accepting professional users as equals and thus create a dialogue in the communication between the servant and the user.

Managers of private and public organizations should be more conscious of the role played by their customers and subordinates because a more equal role performance between the servant and the customer (user) would increase the possibilities for a dialogue form of communication and thereby increase the quality of the relationship and as a result again increase the customer loyalty. Moreover, managers ought to focus on their customers' specific needs in order to meet their needs in a better way. A better covering of customer needs would improve the quality of the relationship and in this way increase the customer loyalty.

A major change in the delivery system along these lines could in this way promote more active and respected citizen role in accordance with the best traditions of user oriented E -Governance.

Future research

Future research on relations quality in the public sector should include covering of user's needs and equity between the parties. Future research on roles and communication should include variables such as IT maturity, freedom of choice and equity in communication.

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Int. Journal of Business Science and Applied Management, Volume 1, Issue 1, 2006

Tourist Satisfaction and Destination Loyalty intention: A Structural and Categorical Analysis

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Abstract

This study explores the relationship between travel satisfaction and destination loyalty intention. The research was conducted with 486 tourists visiting Arade, a Portuguese tourist destination. Taking as the basis the use of structural equation modelling (SEM), the results substantiate the importance of tourism satisfaction as a determinant of destination loyalty. Also, a categorical principal components analysis (CATPCA) provides a detailed analysis of this cause-effect relationship by establishing that greater levels of satisfaction (measured by overall satisfaction in terms of holiday experience, destination attributes and met expectations) result in increased likelihood of future repeat visits and a keen willingness to recommend the destination to others. Clusters of tourists were also identified and characterized in relation to satisfaction levels and loyalty intentions. These analyses provide a useful background in the planning of future tourist marketing strategies.

Keywords: tourism, satisfaction, loyalty, SEM, CATPCA, clusters

1 INTRODUCTION

Tourism represents a key industry in the Portuguese economy. In 2004, Portugal received more than 12 million tourists with tourism representing approximately 8% of the GDP. Tourism also plays an important role in the Portuguese employment marketplace since more than 10% the population is employed in tourism-related sectors. Located in the south of Portugal, Algarve belongs to the top 20 travel destinations worldwide with the local economy relying mostly on the tourism-related activities. Despite the exceptionally favourable conditions for tourism (quality beaches, warm climate, hospitable and friendly community and multiculturally-attuned), Algarve has recently experienced some difficulty in maintaining its position as a preferred travel destination. Compared to 2004, the number of tourists entering Algarve decreased by 0.8% with lodging demand decreasing by 4.8% (AHETA, 2005). Although several external factors could be mentioned as passive reasons for this occurrence, the current condition of tourism in Algarve is much the result of emerging new holiday destinations that offer lower prices and, in some cases, higher quality facilities (AHETA, 2005).

Even though the study of consumer loyalty has been pointed out in the marketing literature as one of the major driving forces in the new marketing era (Brodie et al., 1997), the analysis and exploration of this concept is relatively recent in tourism research. Some studies recognise that understanding which factors increase tourist loyalty is valuable information for tourism marketers and managers (Flavian et al., 2001). Many destinations rely strongly on repeat visitation because it is less expensive to retain repeat tourists than to attract new ones (Um et al., 2006). In addition, Baker and Crompton (2000) show that the strong link between consumer loyalty and profitability is a reality in the tourism industry.

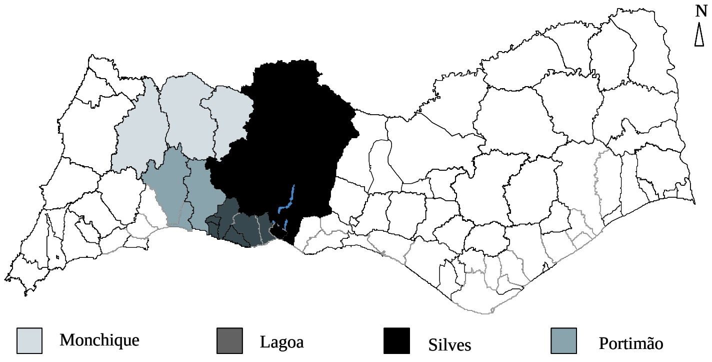
The study of the influential factors of destination loyalty is not new to tourism research. Some studies show that the revisit intention is explained by the number of previous visits (Mazurki, 1989; Court and Lupton, 1997; Petrick et al., 2001). Besides destination familiarity, the overall satisfaction that tourists experience for a particular destination is also regarded as a predictor of the tourist's intention to prefer the same destination again (Oh, 1999; Kozak and Rimmington, 2000; Bowen, 2001; Bigné and Andreu, 2004; Alexandros and Shabbar, 2005; Bigné et al., 2005). Other studies propose more comprehensive frameworks. Bigné et al. (2001) model return intentions to Spanish destinations through destination image, perceived quality and satisfaction as explanatory variables. Yoon and Uysal (2005) use tourist satisfaction as a moderator construct between motivations and tourist loyalty. Recently, Um et al. (2006) propose a model based on revisiting intentions that establishes satisfaction as both a predictor of revisiting intentions and as a moderator variable between this construct and perceived attractiveness, perceived quality of service and perceived value for money.

More complex models have the advantage of allowing a better understanding of tourist behaviour since more variables and their interactions can be taken into account. However, for more effective marketing interventions it is important to assess whether the destination models also consider the tourist's personal characteristics (Woodside and Lysonski, 1989; Um and Crompton, 1990). In fact, despite the use of more comprehensive models, so far, they have left unspecified the main personal characteristics (socio-demographic and motivational) of the more potentially loyal and satisfied tourists. The contribution of this study lies in bridging this research gap. This study integrates the main stream of previous research on destination loyalty intention proposing a causal relationship between this construct and satisfaction. However, besides estimating this causal model, the paper aims to identify how observed variables of the latent constructs are related and, next, find and describe segments of tourists based on these relations.

The study relies on the use of a structural equation model (SEM) procedure, through a categorical principal components analysis (CATPCA) and a cluster analysis. The model is estimated using data from a questionnaire answered by tourists visiting *Arade*, a Portuguese tourism destination, located in Algarve, in the western part of the province, which includes four municipalities Portimão, Lagoa, Monchique and Silves (Figure 1). On the one hand, this type of approach can help destination managers to determine segments of tourists which require special attention in the definition of future tourism intervention strategies. On the other hand, the complementary use of CATPCA and cluster analysis can be applied in further research in order to develop more complex models in which an increased number of latent variables and relations among them are considered.

This study is organised as follows. The next section provides an overview of previous research that has focused on destination loyalty and tourist satisfaction. Section 3 proposes a structural model that establishes the causal relationship between these constructs and defines the set of research hypotheses. Section 4 describes the research methods adopted. The final two sections discuss the results obtained and summarises the more important conclusions and implications of the study.

Figure 1: Algarve, Arade and its municipalities



2 LITERATURE REVIEW

The concept of loyalty has been recognised as one of the more important indicators of corporate success in the marketing literature (La Barbara and Mazursky, 1983; Turnbull and Wilson, 1989; Pine et. al., 1995; Bauer et. al., 2002). Hallowell (1996) provides evidence on the connection between satisfaction, loyalty and profitability. The author refers that working with loyal customers reduces customer recruitment costs, customer price sensitivity and servicing costs. In terms of traditional marketing of products and services, loyalty can be measured by repeated sales or by recommendation to other consumers (Pine et al., 1995). Yoon and Uysal (2005) stress that travel destinations can also be perceived as a product which can be resold (revisited) and recommended to others (friends and family who are potential tourists).

In his study about the desirability of loyal tourists, Petrick (2004) states that loyal visitors can be less price sensitive than first time visitors. This study shows that less loyal tourists and those visiting the destination for the first time tend to spend more money during the visit. However, these tourists report a high value in the measure "risk-adjusted profitability index", proposed by the author, and as such are not as desired as loyal tourists.

The determining factors of loyalty have been studied in the marketing literature. Bitner (1990), Dick and Basu (1994) and Oliver (1999) show that satisfaction from products or services affect consumer loyalty. Flavián et al. (2001) add that loyalty to a product or service is not the result of the absence of alternative offers. Instead, loyalty occurs because consumers increasingly have less free time available and therefore try to simplify their buying decision process by acquiring familiar products or services.

As referred to above, research shows that the satisfaction that tourists experience in a specific destination is a determinant of the tourist revisiting. Baker and Crompton (2000) define satisfaction as the tourist's emotional state after experiencing the trip. Therefore, evaluating satisfaction in terms of a travelling experience is a post-consumption process (Fornell, 1992; Kozak, 2001). Assessing satisfaction can help managers to improve services (Fornell, 1992) and to compare organisations and destinations in terms of performance (Kotler, 1994). In addition, the ability of managing feedback received from customers can be an important source of competitive advantage (Peters, 1994). Moreover, satisfaction can be used as a measure to evaluate the products and services offered at the destination (Ross and Iso-Ahola, 1991; Noe and Uysal, 1997; Bramwell, 1998; Schofield, 2000).

Recently, more holistic models have been used to explain destination loyalty in tourism research. Yoon and Uysal (2005) propose a model which relates destination loyalty with travel satisfaction and holiday motivations. This study finds a significant cause-effect relationship between travel satisfaction and destination loyalty as well as between motivations and travel satisfaction. Oh (1999) establishes service quality, perceived price, customer value and perceptions of company performance as determinants of customer satisfaction which, in turn, is used to explain revisit intentions. Bigne et al. (2001) identify that returning intentions and recommending intentions are influenced by tourism image and quality variables of the destination. Kozak (2001) model intentions to revisit in terms of the following explanatory variables: overall satisfaction, number of previous visits and perceived performance of destination. In a recent paper, Um et al. (2006) propose a structural equation model that explains revisiting intentions as determined by satisfaction, perceived attractiveness, perceived quality of service and perceived value for money. In this study repeat visits are determined more by perceived attractiveness than by overall satisfaction.

Another important conclusion from the study carried out by Um et al. (2006) is that the revisit decision-making process should be modelled in the same way as modelling a destination choice process. This implies that the personal characteristics of tourists, such as motivations and socio-demographic characteristics also play an important role in explaining their future behaviour. Despite sharing equal degrees of satisfaction, tourists with different personal features can report heterogeneous behaviour in terms of their loyalty to a destination (Mittal and Kamakura, 2001).

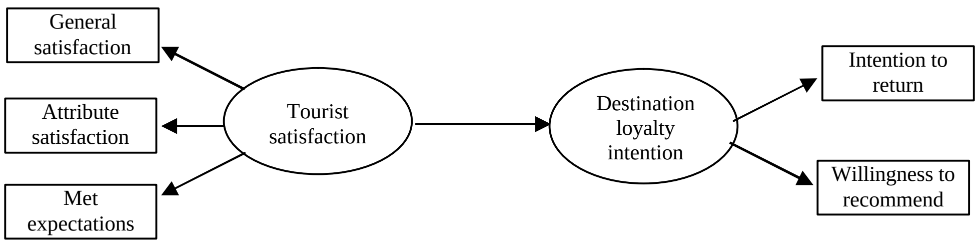
Motivations form the basis of the travel decision process and therefore should also be considered when analysing destination loyalty intentions. Beerli and Martín (2004) propose that "motivation is the need that drives an individual to act in a certain way to achieve the desired satisfaction" (Beerli and Martín, 2004:626). Motivations can be intrinsic (push) or extrinsic (pull) (Crompton, 1979). Push motivations correspond to a tourist's desire and emotional frame of mind. Pull motivations represent the attributes of the destination to be visited. Yoon and Uysal (2005) take tourist satisfaction to be a mediator variable between motivations (pull and push) and destination loyalty.

The effect of socio-demographic variables in the tourist decision process is also an issue which has received some attention. Some studies propose that age and level of education influence the choice of destination (Goodall and Ashworth, 1988; Woodside and Lysonski, 1989; Weaver et al., 1994; Zimmer et al., 1995). Font (2000) shows that age, educational level, nationality and occupation represent determinant variables in the travel decision process.

3 CONCEPTUAL MODEL AND RESEARCH HYPOTHESES

The proposed structural equation model of the tourist loyalty intention is presented in Figure 2. The model establishes a direct causal-effect relationship of *tourist satisfaction* on *destination loyalty intention*. This connection is supported by earlier studies as those carried out by Kozak and Rimmimington (2000), Bigné et al. (2001, 2005), Gallarza and Saura (2005), Yoon and Uysal (2005) and Um et al (2006).

Figure 2: The proposed hypothetical model



The model also shows the observed variables used to measure the latent constructs *tourist satisfaction* and *destination loyalty intention*. As will be described in the following Section, the observed variables were chosen based on previous research. In addition, the application of the structural equation modelling procedure will demonstrate that these variables adequately represent the corresponding constructs.

As stressed by Yoon and Uysal (2005), satisfaction should be perceived from a multidimensional perspective, i.e., more than one observed variable should be considered. Chon (1989) demonstrates that both the perceived evaluative outcome of the holiday experience at the destination and associated expectations are important elements in shaping tourist satisfaction. Customer satisfaction can be estimated with a single item, which measures the overall satisfaction (Fornell, 1992; Spreng and Mackoy, 1996; Bigné et al., 2001). Besides the global perception about the outcome alone, the degree of satisfaction can be evaluated through specific service attributes (Mai and Ness, 2006). Additionally, satisfaction can be evaluated using the theory of expectation/confirmation in which expectations and the actual destination outcome are compared (Oliver, 1980; Francken and Van Raaji, 1981; Chon, 1989; Bigné et al., 2001). That is, if expectations exceed perceived outcome then a positive disconfirmation is obtained, leaving the tourist satisfied and willing to repeat the visit; if a negative disconfirmation occurs the tourist feels dissatisfied and will look for alternative travel destinations. Based on these studies, three observed variables (also referred to as indicators) are used in order to measure *tourist satisfaction* in this paper: (1) general destination satisfaction; (2) mean satisfaction level in terms of destination attributes; and (3) whether destination expectations were met.

Oliver (1999) states that loyalty is a construct that can be conceptualised by several perspectives. Cronin and Tayler (1992), Homburg and Giering (2001) measure the construct "future behavioural intention" by using two indicators: the intention of repurchase and the intention to provide positive recommendations. In tourism research, similar approach is adopted and tourist loyalty intention is represented in terms of the intention to revisit the destination and the willingness to recommend it to friends and relatives (Oppermann, 2000; Bigné et al., 2001; Chen and Gusoy, 2001; Cai et al., 2003; Niininen et al., 2004; Petrick, 2004). Therefore, two indicators, "revisiting intention" and "willingness to recommend" are used as measures of *destination loyalty intention*.

As referred to in the literature review, socio-demographic variables and motivational variables can influence the travel decision. This study also aims to analyse whether this relationship is true when considering revisiting a destination. In specific, besides estimating the conceptual model proposed in Figure 2, this study looks to show that tourists, stating a more favourable revisiting intentions and recommendation behaviour, are expected to be the most satisfied, possessing different socio-demographic characteristics and motivations to travel.

Accordingly to the above considerations, the following research hypotheses are formulated:

H_1: Tourist satisfaction holds a positive influence on tourist loyalty

H_2: "General destination satisfaction", "mean satisfaction level in terms of destination attributes" and "the extent to which expectations were met" are adequate measures of *tourist satisfaction*

H_3: "Revisiting intention" and "willingness to recommend" are adequate measures of *destination loyalty intention*

H_4: Destination loyalty intention is different according to socio-demographic characteristics of tourists

H_5: Destination loyalty intention is different according to travel motivations

4 METHODOLOGY

The questionnaire

The data for this study were collected from 486 personal interviews based on a structured questionnaire carried out from March to July 2004. The questionnaire, comprising five sections, was designed to analyse tourist motivations and perceptions towards *Arade*. Section 1 enquired about the basic background data on the tourist's vacation at this destination, that is, lodging municipality (Portimão, Lagoa, Monchique or Silves), type of lodging (hotel, apartment, private home, other), length of the stay, main push motivation to travel to *Arade* (leisure/recreation/holidays, visiting friends, business, health) and main form of transportation used in the region (rental car, private car, public transports, other).

Sections 2 and 3 involved thirty attributes of the destination that were assessed in terms of importance (section 2) and satisfaction (section 3). The assessed attributes, which represent the attributes of the destination (pull factors) included: beaches, spas, hospitality, authenticity, accessibilities, historical centres, traffic, forms of transportation, sports facilities, landscape, monuments, urban planning, restaurants, traditional architecture, animation, lodging, shopping areas, cultural events, tourist information, food, leisure areas, public safety, gardens/green spaces, pedestrian areas, competence and kindness, parking, water supply system, waste recovery system, cleanliness and traffic signs. These attributes were selected because they are the most quoted in the tourism literature (Uysal, Mclellan and Syrakaya, 1996; Iso-Ahola and Mannel, 1987; Fodness, 1994; Mohsin and Ryan, 2003; Shoemaker, 1989; Cossens, 1989). In both cases, the attributes were assessed with a five-point Likert type scale. This scale ranged from "totally irrelevant" (1) to "extremely important" (5) in terms of importance and from "very unsatisfied" (1) to "very satisfied" (5) in terms of satisfaction.

Section 4 looked to measure the overall tourism experience in *Arade* by asking respondents about the overall satisfaction with the journey, intention to revisit and recommendation intention, and whether the expectations about the journey were met or not. Finally, section 5 draws on questions about socio-demographic characteristics: gender, age, marital status, occupation, educational qualification and nationality.

Sample procedures and participants

The target population of this study involves Portuguese and foreigner tourists visiting *Arade* and stating in one of the four municipalities of this tourist region. From this population, a sample was selected using a quota sampling method with interviews performed by trained interviewers, instructed to select respondents as randomly as possible (not based on personal preferences), at different locations and at different times. This sampling method was applied because it is not possible to obtain a list of all tourists visiting *Arade* during this period, which would enable the use of a stratified sampling method (the random version of the quota sampling method). The number of tourists to be included in each quote was defined proportionally to the type of tourist in the target population (Portuguese and foreigner) and its distribution according to the four municipalities. A minimum of 30 interviews in the smallest quote (Portuguese tourists lodged in Monchique) was anticipated in order to perform statistical tests, if necessary. The sample dimension for the remaining quotes was determined proportionally giving rise to a total of 486 interviews.

Since non-random sampling does not ensure a representative sample, the main socio-demographic features of the target population of tourists (INE-National Institute of Statistics, 2004) were compared with the analogous features of the sample. Three socio-demographic characteristics of the target population were available for this comparison: gender, age and educational qualifications. This analysis shows that the sample is not significantly different from the target population in terms of gender because in both cases the majority of tourists were female (around 51% of the population; around 54% of the sample). In terms of age and educational qualifications, older tourists with lower qualifications were expected. In fact, the proportion of tourists older than 65 in the target population was 16.5% although this percentage represents only 3.2% in the sample. Similarly, 19.4% of target tourists have a degree whereas in the sample this percentage was much higher (50.6%). Note that the sample represents a target population for both Portuguese nationals and foreign tourists according to the municipality where they were lodged. Around 30% of respondents were Portuguese tourists, around 59% were lodged in Portimão, 29% in Lagoa, 6% in Silves and 6% in Monchique. Table 1 shows the main socio-demographic characteristics of respondents and also some features of the visit. Most tourists were female, possessed college or high school qualifications, belonged to the 25-44 age interval, were foreign (mainly English), and married. In the majority of cases, tourists were lodged in Portimão, in a hotel, motivated mainly by reasons related to leisure/recreation and holidays and travelled by rental car during their stay.

"Runs tests" were carried out in order to assess whether the observations for each variable could be considered as having a random pattern. For all variables in the table, this hypothesis was not rejected (runs tests: $p > 0.05$). This observation is required in order to form statistical inferences, though absent in sub-represented groups, namely, older tourists with lower education qualifications.

Table 1: Demographic characteristics of the sample and journey features

Characteristic	Distribution of Answers
Tourist's gender	Female: 53.6 %; male: 46.4%
Tourist's age	15 – 24: 19.1%; 25 – 44: 50.0%; 45 – 64: 27.7% ; older than 65: 3.2%
Tourist's educational qualification	Elementary: 6.2%; Secondary: 44.2%; College or higher: 50.6%
Tourist's nationality	Portuguese tourists: 28%; Foreign tourists: 72% (45% English)
Tourist's marital status	Married: 62.4%; single: 32.2%; divorced: 4.5%; widowed: 0.8%
Tourist's occupation	Managerial and professional occupations: 20.6%; associate professional and technical: 18.3%; students; 17%; sales and customer services or administration and secretarial: 14%; skilled trades: 13.3%; other: 16.8%
Lodging municipality	Portimão: 59%; Lagoa: 29%; Monchique: 6%; Silves: 6%
Type of lodging	Hotel: 48.3%; apart hotel: 9.6%; private house: 18%; other: 24.1%
Length of the stay	Mean = 12 days; standard deviation = 6 days
Main travel motivation to *Arade*	Leisure/recreation/holidays: quoted by 91.6% of respondents; visiting friends: quoted by 10.9% of respondents; business: quoted by 3.7% of respondents; health: quoted by 3.9% of respondents
Main form of transportation used in the journey	Rental car: 39.8%; private car: 29.3%; public transports: 26.8%; other: 4.1%

Latent constructs and observed variables

Table 2 shows the latent constructs, observed variables and questionnaire items used to measure each observed variable of the proposed model and the corresponding scales.

Table 2: Latent construct, observed variables, questions and scales

Latent Constructs	Observed Variables	Questions	Scale
Tourist satisfaction	General satisfaction	What is your overall satisfaction level as a tourist experiencing *Arade*?	1 – very unsatisfied 2 – unsatisfied 3 – not satisfied nor unsatisfied 4 – satisfied 5 – very satisfied
	Attribute satisfaction	In terms of satisfaction, how would you rate the following *Arade attributes*? **(*)**	1 – very unsatisfied 2 – unsatisfied 3 – not satisfied nor unsatisfied 4 – satisfied 5 – very satisfied
	Met expectations	Were your expectations met?	1 – no 2 – yes
Destination loyalty	Intentions in revisiting	Do you intend to revisit *Arade* in the future?	1 – no 2 – maybe; 3 – yes
	Willingness to recommend	Would you recommend *ARADE* to your friends and family?	1 – no 2 – maybe; 3 – yes

(*) Mean of satisfaction level with the thirty attributes.

Statistical data analysis procedures

This study applies three methods of multivariate statistical analysis: structural equation modelling (SEM), categorical principal components analysis (CATPCA) and cluster analysis. The research hypotheses *H1* to *H3* are tested according to the SEM procedure. By describing the tourist segments produced by the cluster analysis, *H4* e *H5* are assessed.

Firstly, the proposed hypothetical model is estimated by using a SEM procedure via the *Analysis of Moment Structures* software (AMOS 5) (Arbuckle and Wothke, 1999). This software package is used because it works inside the software SPSS 14, which was available to the research team and used to treat the data. AMOS has a simple interface, and only requires the path diagram to specify the model, generating indexes and tests that are necessary to assess the estimated model.

Questionnaire items described in Table 2 represent observed variables for *tourist satisfaction* and *destination loyalty intention*. To correct for non-normality of the observed variables, the Weighted Least Squares (WLS) method of estimation (Schumacker and Lomax, 1996) is adopted. The model fit analysis follows similarly to Hair et al's approach (1995). According to this study, the measurement model and the structural model should be evaluated separately, after examining the overall model fit. Three types of *overall model fit* measures are examined: absolute fit, incremental fit and parsimonious fit. The Chi-square goodness-of-fit test is the best known index of absolute fit and used as a general indicator of how well the proposed model complies with the available data. Chi-square values should be low and not statistically significant for the purpose of goodness of fit. In addition to the Chi-square test, other measures of overall model fit are also used. Excluding the cases of the root mean square residual (RMSR) (Steiger, 1990) and the root mean square residual of approximation (RMSEA) (Steiger, 1990), in which lower values are considered desirable (zero suggesting a perfect fit), the remaining measures range from 0 (no fit) to 1 (perfect fit) and the normed Chi-square measure (Joreskog, 1969) range from 1 to 5, ideally.

The measurement model specifies the relationship between the latent constructs and the corresponding observed variables. The *measurement model fit* assesses the reliability and validity of the latent variables (Hair et al., 1995; García and Martinez, 2000). *Reliability* analysis refers to whether the observed variables, chosen to indicate the construct, are really measuring the same (unobserved) concept. In this study, we determine two measures of reliability for each construct: the construct composite reliability and the variance extracted from each construct. Scharma (1996) considers 0.7 as the adequate minimum acceptance level for the composite reliability and 0.5 for the variance extracted. On the other hand, *validity* focuses on whether one observed variable truly measures the construct intended by the researcher. The validity of the observed variables holds true if these are significant, or at least moderately significant, on hypothesised latent variables (Bollen, 1989).

The structural model specifies the relationships between the latent constructs. In analysing the *structural model fit*, we test the standardised parameter estimate that links the two latent constructs in terms of its sign and statistical significance. In addition, the squared multiple correlation coefficient for the structural equation associated to the latent variables is examined. This coefficient is similar to the coefficient of determination used in multiple regression analysis and shows how well the data supports the proposed relationship.

Next, using CATPCA, we explore the relationship between each observed variable measuring the latent constructs *tourist satisfaction* and *destination loyalty intention*. The use of this technique complements information taken from the structural equation model. As reported in Table 2, all observed variables are qualitative (categorical) and CATPCA is a multivariate technique developed to analyse categorical variables (Meulman and Heiser, 2004). This method is basically an exploratory technique that uncovers the associations among the categories of qualitative variables in large contingency tables. CATPCA uses a mathematical algorithm that provides an optimal quantification to each category of the qualitative variables that allows for their graphical representation. As the name of the method suggests, CATPCA performs a principal components analysis (PCA) for categorical variables. Through this method, each category of the qualitative variables have an optimal quantification in each dimension (or component) produced by this special type of PCA. For each category, the optimal quantifications in the retained dimensions are the coordinates that allow the representation of the category in the geometrical display. These geometrical displays make data interpretation easier since they reveal similar variables or categories. Specifically, categories that are related are represented as points close together on the graph. Unrelated categories appear distant on the graph.

As the classic PCA, CATPCA produces dimensions which are quantitative variables that capture the information (variability) contained in the initial observed variables. Standard outputs of both methods include the eigenvalue associated to each retained dimension and the total amount of explained variance. Each eigenvalue is perceived as a measure of the importance of the corresponding dimension in capturing the information provided by the original observed variables. In turn, the total amount of explained variance informs how well the set of retained dimensions captures, as a whole, the initial set of qualitative variables. In this study we follow the Kaiser (1960) criterion that suggests that only dimensions with eigenvalues higher than 1 should be retained.

Lastly, the graph produced by CATPCA suggests distinct groups of tourists based on scores obtained from this method. We validate these groups via a cluster analysis through a k-means cluster optimisation method. The use of a cluster analysis in this context is recommended because although CATPCA can identify specific groups present in the data it is unable to specify their common features (Maroco, 2003). The statistical analysis concludes with a description of the main features for each group (segment) of tourists. In this study, CATPCA and cluster analysis were performed with SPSS 14.

5 RESULTS

Structural equation modelling

Figure 3 shows the estimated standardised path coefficients on the model itself. All estimates are statistically significant ($p = 0.000$). The selected overall fit indices are reported in Table 3. As can be observed, the Chi-square statistic is low and non-statistically significant ($p > 0.01$), suggesting that the model is a good description of the data. Auxiliary measures of overall fit also report the desired levels, indicating a good overall model fit: the GFI is high and exceeds the recommended level of 0.9; the RMSR and the RMSEA are close to 0. In addition, the proposed model reports high levels for the remaining measures (close to 1), suggesting an adequate incremental and parsimonious fit.

Figure 3: Standardised estimates of hypothetical model

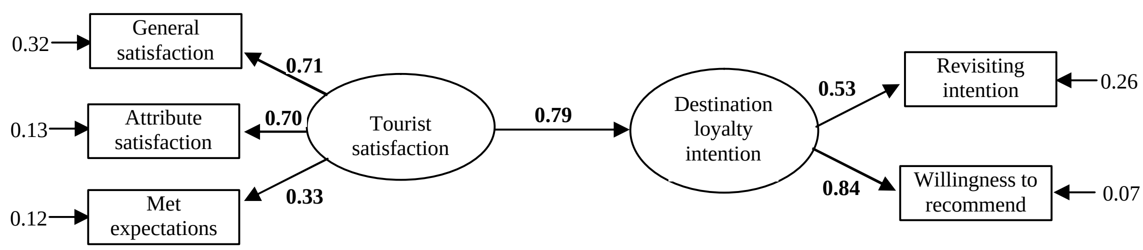


Table 3: Goodness-of-fit indices for the estimated structural model

Absolute fit measures	Incremental fit measures	Parsimonious fit measures
Chi-square = 13.34 (p = 0.015)	AGFI[3] = 0.93	Normed Chi-square[8] = 3.085
RMSR[1] = 0.02	NFI[4] = 0.879	
RMSEA[2] = 0.067	TLI[5] = 0.774	
	IFI[6] = 0.915	
	CFI[7] = 0.909	

[1]RMSR: root mean square residual (Steiger, 1990); [2]RMSEA: root mean square residual of approximation (Steiger, 1990); [3]AGFI: adjusted goodness of fit index (Joreskog and Sorbom 1986); [4]NFI: normed fit index (Bentler and Bonnet, 1980); [5]TLI: Tucker and Lewis index (Tucker and Lewis, 1973); [6]IFI: incremental fit index (IFI) (Bollen, 1988); [7]CFI: comparative fit index (Bentler, 1990); [8]Normed Chi-square measure (Joreskog, 1969).

Table 4 shows the results of the measurement model in terms of the constructs' reliability and variance extracted. These measures exceeded the recommended levels of 0.7 and 0.5, respectively, for both *tourist satisfaction* and *destination loyalty intention*. This means that the latent constructs are reliable, that is, the observed variables selected to indicate each construct measure the same (unobserved) concept (Scharma, 1996). As seen in Figure 3, significant standardised loadings of each observed variable on the corresponding constructs (p = 0.000) were reported, thus validating the proposed constructs. As explained in the methods section, validity refers to whether the observed variables truly measure the latent construct intended by the researcher (Bollen, 1989). In short, hypotheses *H2* and *H3* should not be rejected.

Table 4: Results of the measurement model

Latent constructs	Construct reliability	Variance extracted
Tourist satisfaction	0.84	0.66
Destination loyalty	0.81	0.75

After assessing the measurement model, we observed the structural model. As presented in Figure 3, the findings indicate a positive relationship between *tourist satisfaction* and *destination loyalty intention*, as shown by a high and statistically significant loading between the two constructs (0.785; p = 0.000). This implies that satisfaction has a positive influence on the tourist loyalty intention, i.e., *H1* is supported. The squared multiple correlation for the structural equation relating the two constructs is moderately high (0.616), suggesting that 61.6% of the variability of *loyalty destination intention* is explained by the variability of *tourist satisfaction*.

Categorical principal components analysis

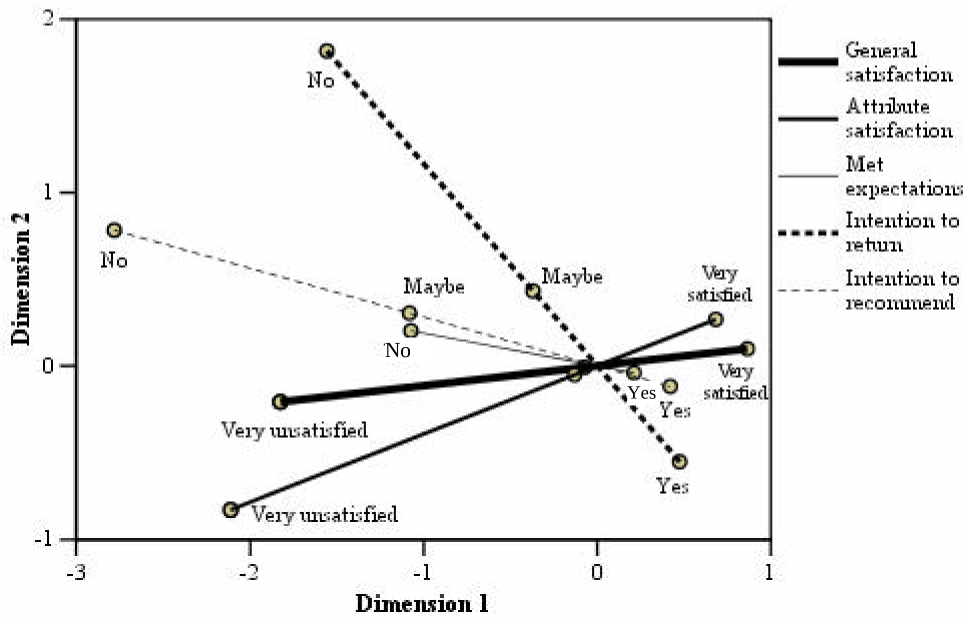
In general terms, CATPCA is traditionally used to reduce the dimensionality of an original set of categorical variables (nominal and ordinal) into a smaller set of quantitative variables (components or dimensions) which account for most of the information (variance) in the original variables. As explained above, once this method has been applied, each category of each qualitative variable will have an optimal quantification in the retained dimensions. These quantifications are coordinates that allow the categories to be represented in a geometrical display, making data interpretation easier.

In having estimated the structural model, CATPCA was performed to explore the joint relationships among the five observed variables of the model: *general satisfaction*, *attribute satisfaction*, *met expectations*, *revisiting intention* and *willingness to recommend*. Based on the observation of the eigenvalues in a higher number of dimensions, we retained only the first two dimensions (those with eigenvalues higher than 1) which account for 62.1% of the total variance of the original data.

Figure 4 is the geometrical display that allows a visual interpretation of the how the categories of the observed variables are related. The horizontal axis represents dimension 1 and the vertical axis shows dimension 2. In the graph, the variables measuring *tourist satisfaction* are indicated by solid lines and the variables measuring *destination loyalty intention* are captured by the dashed lines. In each line, the displayed points represent the categories of variables. As can be observed, the graph shows that the categories indicating higher level of satisfaction (*general satisfaction*: 5 – very satisfied; *attribute satisfaction*: 5 – very satisfied; *met expectations*: 2 – yes) and higher level of loyalty intention (*revisiting intention*: 3 – yes; *willingness to recommend*: 3 – yes) are represented close to eachother (on the right-hand side of the graph). These results show that tourists generally satisfied with their experience in terms of specific attributes of the location and whose expectations were met are more likely to return to *Arade* and recommend it to family and friends.

Another aspect that the graph clarifies is that the direction of the line representing *willingness to recommend* is not very different than the directions of the lines representing level of satisfaction. When comparing these lines, however, the line indicating *revisiting intention* has a somewhat different direction. Since in the graphs produced by CATPCA, similar points/lines suggest related categories/variables, this study reveals that higher levels of satisfaction are more related to willingness to recommend than intention to return.

Figure 4: Joint plot of category points for tourist satisfaction and destination loyalty intention



Cluster analysis

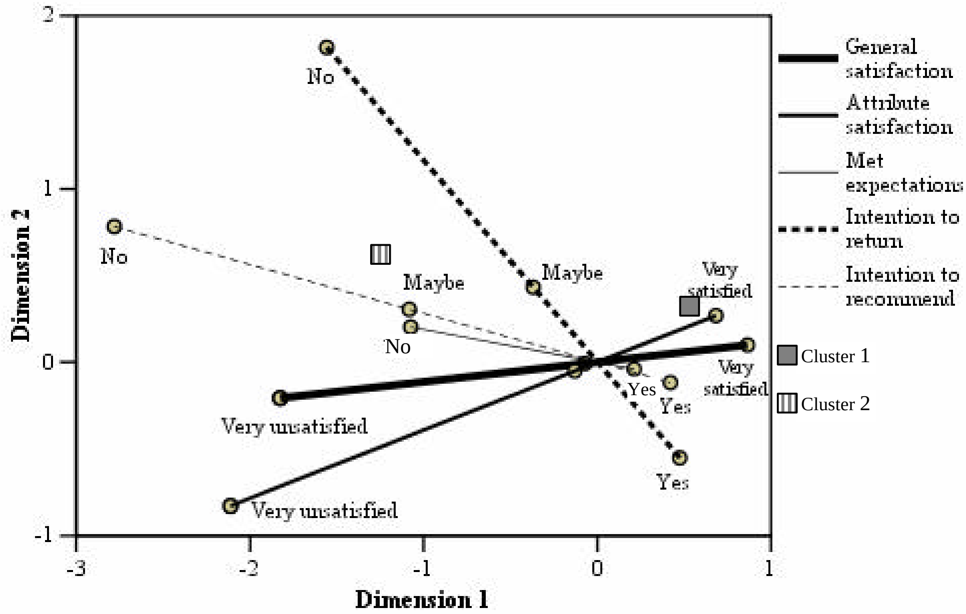
The graph produced by CATPCA suggests that two groups of tourists can be determined as a result of the relations between the categories of variables measuring *tourist satisfaction* and variables measuring *destination loyalty intention*. As indicated by the map, these groups display the following characteristics: on the right-hand side of the graph, we can observe more satisfied tourists willing to return and recommend *Arade*; the left-hand side shows tourists who are less satisfied and uncertain about revisiting or recommending *Arade* as a holiday destination.

In order to validate these groups, a cluster analysis was performed. Final cluster centres are presented in Table 5. Figure 5 displays these centres (also referred to as centroids) on the graph produced by CATPCA (dark square and lined square). These centroids are clearly at the centre of the groups suggested by CATPCA, establishing the presence of these groups. The centroid of Custer 1 appears on the right-hand side of the graph and the centroid of Custer 2 is represented on the left-hand side. Thus, the clusters can be referred to as “more satisfied and more loyal tourists” (cluster 1) and “less satisfied and less loyal tourists” (cluster 2). Note that 349 (72%) tourists were included in cluster 1 and 137 (28%) in cluster 2.

Table 5: Final cluster centres and number of tourists in each cluster

Dimensions from CATPCA	Cluster 1	Cluster 2
Dimension 1	0.50	-1.27
Dimension 2	-0.15	0.37

Figure 5: Joint plot of category points and clusters centres



An advantage of running a cluster analysis after CATPCA is that it allows us to create a new variable that identifies which tourist belongs to which cluster. In particular, the tourists included in cluster 1 were identified with code 1 and code 2 was used to identify tourists belonging to cluster 2. This new variable (named as *cluster membership*) can then be related with other variables measured in the questionnaire in order to provide a detailed description of the groups.

Table 6 shows the distribution of tourists for each group across the categories of variables used in the CATPCA. As expected, there is a significant dependence relationship reported between each of these variables and *cluster membership* (chi-square independence tests: $p > 0.000$). The values in bold allow us to identify the tourist profile in each cluster according to these variables. As expected, the first cluster includes the most satisfied (70.3%) and very satisfied tourists (98.6%), whose travel expectations were met (79.6%) and whose intentions to recommend and return to *Arade* were stated (93.6% and 92.3%). The second cluster displays opposing characteristics in terms of these variables.

Table 6: Frequency distribution of variables used in the CATPCA in the two clusters solution

Variables used in the CATPCA	Cluster 1	Cluster 2	Total
Overall satisfaction with holiday experience			
1 – very unsatisfied	25.0%	**75.0%**	100.0%
2 – unsatisfied	8.3%	**91.7%**	100.0%
3 – not satisfied nor unsatisfied	8.6%	**91.4%**	100.0%
4 – satisfied	**70.3%**	29.7%	100.0%
5 – very satisfied	**98.6%**	1.4%	100.0%
Mean satisfaction with the attributes of the destination			
1 – unsatisfied	0.0%	**100.0%**	100.0%
2 – not satisfied nor unsatisfied	6.5%	**93.5%**	100.0%
3 – satisfied	**69.3%**	30.7%	100.0%
4 – very satisfied	**90.7%**	9.3%	100.0%
Were your expectations met?			
1 – no	31.6%	**68.4%**	100.0%
2 – yes	**79.6%**	20.4%	100.0%
Do you intend to revisit *Arade* in the future?			
1 – yes	**93.6%**	6.4%	100.0%
2 – maybe	54.5%	45.5%	100.0%
3 – no	3.8%	**96.2%**	100.0%
Would you recommend *Arade* to friends and family?			
1 – yes	**92.3%**	7.7%	100.0%
2 – maybe	10.4%	**89.6%**	100.0%
3 – no	0.0%	**100.0%**	100.0%

Clusters were also described in terms of socio-demographic characteristics. In this analysis, no significant dependence relationships are identified between cluster membership and the variables: “gender”, “occupation”, “marital status” and “type of lodging” (chi-square independence tests: $p > 0.1$). This means that tourists in each cluster have approximately the same demographic profile reported in table 1 according to these variables. Besides these variables, the groups do not report significant differences in terms of “age” (independent samples t-test: $p = 0.268$), despite the average age being higher in cluster 1 (37.19 years; standard deviation = 13.2 years) than in cluster 2 (35.72 years; standard deviation = 13.68 years).

Table 7 clarifies the variables in which the clusters report significant differences. For a 10% significance level, tourists in both clusters are statistically different in terms of “educational qualification level” (chi-square independence test: $p = 0.058$). As can be observed in the Table, 58.1% of tourists belonging to cluster 2 hold a degree. This percentage decreases to 46.2% with tourists included in cluster 1. “Nationality” is an important variable that differentiates the groups (chi-square independence test: $p = 0.000$): cluster 1 includes 77% of foreigner tourists whereas this proportion is 59.6% in cluster 2. That is, the weight of Portuguese tourists is higher in cluster 2 (40.4%) than in cluster 1 (23%). The analysis shows that *H4* is only partially demonstrated. Another variable that distinguishes clusters is the “length of the stay”. Tourists in cluster 1 stay, on average, 12.56 days in *Arade*, whereas tourists in cluster 2 remain, on average, 10.56 days (independent samples t-test: $p = 0.001$). In both cases, the “length of the stay” has a standard deviation of around 6 days. Finally, the clusters also differ in terms of the main form of transportation mainly used during stay (chi-square independence test: $p = 0.072$). Around 40% of tourists in cluster 2 use a private car, whereas most tourists in cluster 1 rent a car (43.8%) or use public transports (26.8%).

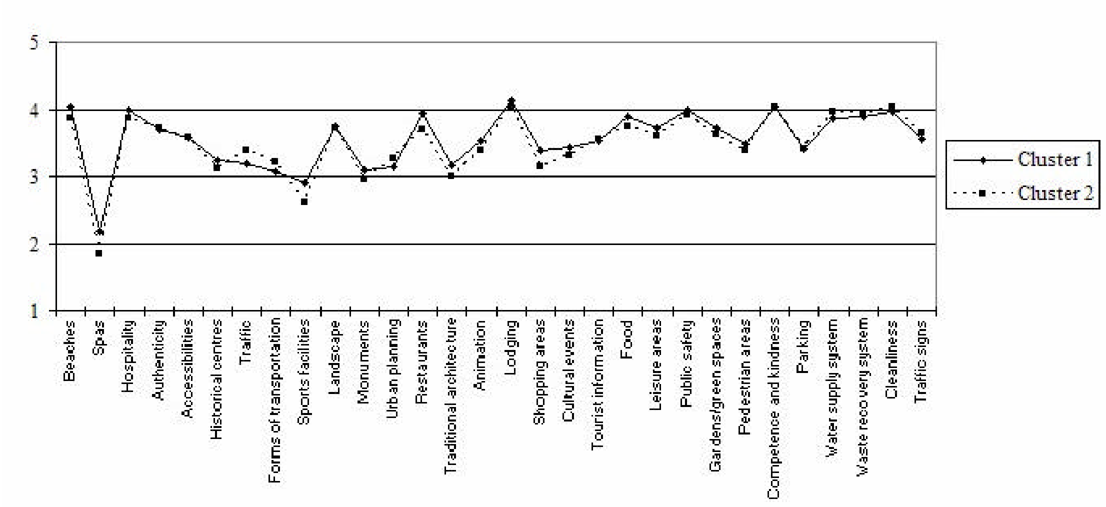
Table 7: Frequency distribution of selected variables in the two clusters solution

Selected variables	*Cluster 1*	*Cluster 2*
Educational qualification level		
Elementary	6.9%	4.4%
Secondary	46.8%	37.5%
College or higher	46.2%	58.1%
Total	100%	100%
Nationality		
Portuguese	77%	59.6%
Foreigner	23%	40.4%
Total	100%	100%
Length of the journey (mean and standard deviation)	12.56 (6)	10.56 (6)
Main mean of transportation used in the journey		
Rental car	43.8%	30.1%
Private car	25.6%	39.0%
Public transports	26.8%	19.8%
Other	3.8%	11.1%
Total	100%	100%

Another finding that deserves attention is the fact that the push motivations behind travelling to *Arade* do not differentiate the groups (chi-square independence tests: $p > 0.1$). In both clusters, only 10.9% of tourists indicate "visiting friends" as the main motivation for visiting this destination. The same occurs with respect to the remaining motivations: only around 4% of tourists in the two clusters indicate reasons relating to "business" or "health". For both groups, "leisure/recreation and holidays" is the main motivation for travelling to this destination (reason indicated by 92% of tourists in cluster 1 and by 90.5% of tourists in cluster 2).

Figure 6 shows the thirty attributes of *Arade* that were graded by the respondents in terms of importance, i.e., the pull motives for visiting this destination. This analysis was done by each cluster. Regarding importance, a first finding reveals that tourists in both clusters do not report significant differences for any of the attributes (independent samples t-tests: $p > 0.15$). In other words, pull motivations do not distinguish the clusters. Figure 6 also clarifies the attributes that tourists in both clusters consider more important (beaches, hospitality, landscape, restaurants, lodging, food, public safety, competence and kindness, water supply system, waste recovery system and cleanliness) and those that are less valued (spas, sports facilities and monuments). Because motivations (whether pull or push) do not differentiate the clusters, *H5* is not supported.

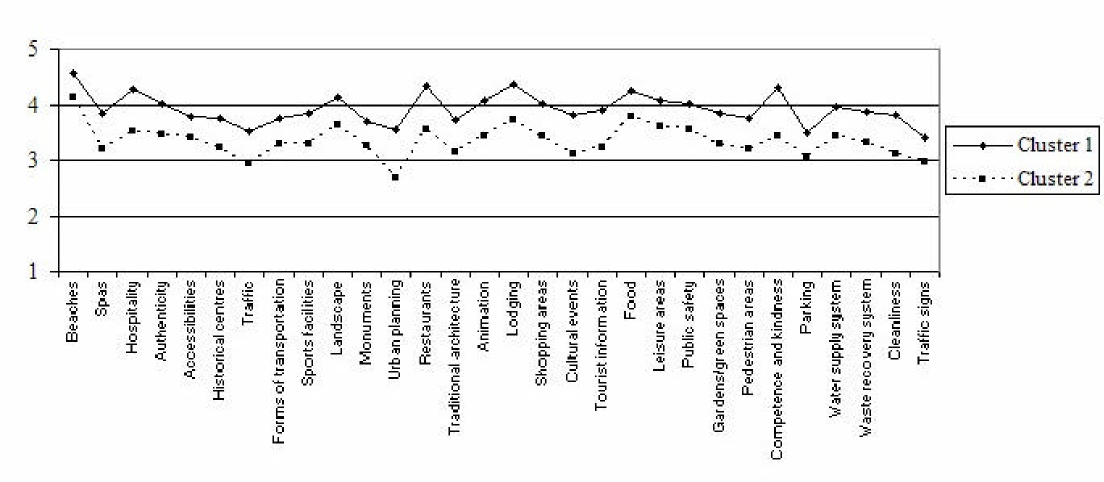
Figure 6: Mean importance of the attributes (by cluster)



Legend: 1 – totally irrelevant; 2 – little important; 3 – indifferent; 4 – important; 5 – extremely important

Figure 7 provides a similar analysis as figure 6 but includes the satisfaction with the attributes. The first aspect that should be noted is that tourists in cluster 1 report a higher level of satisfaction in all attributes than tourists in cluster 2. All differences between groups are statistically significant (independent samples t-tests: p = 0.000). The figure also clarifies the attributes in which the differences between groups are higher (such as, hospitality, urban planning, competence and kindness and cleanliness) and those that are perceived more similarly (beaches, food and monuments). For both clusters, the attributes more positively perceived are beaches, hospitality, landscape, restaurants, food, lodging and the competence and kindness of the locals. The attributes more negatively assessed are traffic, urban planning, parking zones and traffic signs. Attributes such as spas, traditional architecture, cultural events, waste recovery system and cleanliness also report low levels of satisfaction, especially among tourists in cluster 2.

Figure 7: Mean satisfaction according to the attributes (by cluster)



Legend: 1 – very unsatisfied, 2 – unsatisfied, 3 – not satisfied nor unsatisfied, 4 – satisfied, 5 – very satisfied

6 DISCUSSION AND CONCLUSIONS

As living standards increase around the world, more people find themselves able to travel to different destinations. This study establishes the direct causal relationship between *tourist satisfaction* and *destination loyalty intention* by exploring the case of tourists visiting *Arade*, a Portuguese tourism destination.

The results of this study validate the research hypothesis that tourist satisfaction is one contributing factor to destination loyalty intention. This conclusion is mainly based on the findings of the estimated structural equation model. Through CATPCA and cluster analyses, results were fully explored establishing that two clusters of tourists could be identified and then described. Cluster 1 includes the most satisfied tourists who are more determined in revisiting and suggesting the destination; cluster 2 embraces those with worst perceptions of the destination and with weak intentions of returning and recommending. Moreover, observation of the graph produced by CATPCA allows us to conclude that a higher level of satisfaction is more associated to willingness to recommend than to intention to return. This information could not be provided by the SEM procedure. In fact, the estimated model only indicates that tourist satisfaction and loyalty intentions are adequately measured (which is informed by the measurement model results) and are related (which is informed by the structural model results) but do to put forward how the observed variables are jointly correlated. Thus, the sequential data analysis procedures used in this study enables an indepth look at the relationship between satisfaction and loyalty in the tourism framework.

The results of this study have important implications for marketers and managers of *Arade* as a travel destination. In specific, there is a need to improve the perceived quality of the tourist offer, which is the basis of tourist satisfaction (Bigné et al., 2001). Most attributes of the destination services may be controlled and improved by tourism suppliers. The improvement of these services is important and worthwhile because, as this study shows, tourists experiencing higher satisfaction levels reveal favourable intentional behaviour, that is, the willingness to return to *Arade* and to recommend it to others. Moreover, this study also shows that the most satisfied tourists (cluster 1) spend more time, on average, in this destination than the least satisfied tourists with weaker intentions of returning or recommending the region (cluster 2). This is an important finding because a longer stay brings potentially added economic advantages to the region.

Figure 7, and in particular the line representing tourists in cluster 2 (the least satisfied), provides useful indications in improving *Arade*'s competitiveness. The weaknesses of the destination can be summarised, in decreasing order of importance, into four areas: (1) urban planning problems (indicated by the attribute 'urban planning'); (2) traffic problems (indicated by the attributes 'traffic', 'parking' and 'traffic signs'); (3) cleanliness problems (indicated by the attributes 'cleanliness' and 'waste recovery system'); and (4) cultural initiative problems (indicated by the attributes 'traditional architecture' and 'cultural events'). The most critical attributes can be considered those related to traffic and cleanliness because these are important pull motivations that go beyond destination choice (Figure 6). The *Destination Management Organization* (DMO) of *Arade* should consider a priority trying to establish solutions for these problems. Some of these weaknesses can be resolved in the short term through the involvement of the municipalities. The lack of traffic signs, inadequate waste recovery system, the need for old building renovation and the development of the absence of cultural initiatives are good examples. The provision of more and ideally located parking spaces also deserves urgent attention. Finally, it is of strategic importance to review and improve the region's urban planning in order to enhance the overall attractiveness of this tourism region.

Taking into account the country's natural conditions, Portugal, and in particular *Arade*, has all the requirements necessary to be at the forefront in tourism of the future. Figure 7 also clearly shows is that tourists in cluster 1 provide a very good evaluation of the natural conditions of the destination ('beaches', 'landscape'), as well as of the social environment ('hospitality', 'authenticity', 'public safety' and 'competence and kindness'). Facilities more related to tourism activity are also greatly appreciated ('restaurants', 'lodging', 'shopping zones', 'food', 'leisure spaces'). These are also the most positively assessed attributes by tourists in cluster 2, even lower levels of average satisfaction are observed. It is fundamental that marketers of this destination take advantage of this information in order to project the region's image, either nationally or internationally. In general, the perceptions about this destination (Figure 7) surpass expectations (Figure 6), a characteristic that may be further explored in future marketing communication plans.

By evaluating each attribute individually Figure 7 exhibited statistically significant differences between the two clusters for all attributes, more positively graded by tourists belonging to cluster 1. Despite the attributes being different in terms of perceptions, tourists in both groups assess them similarly when focus is on importance rather than satisfaction. This means that the groups are not significantly different in terms of the pull motivations behind the destination (Figure 6). In addition, this study shows that tourists in the two clusters present a quite similar profile in what concerns the push motivations behind the *Arade* region. In both cases, the main and almost single intrinsic motivation in choosing this destination is associated to the need for a vacation/holiday. *Arade*, therefore, should focus on this global segment – tourists that choose the destination for leisure motives – taking advantage of the unique natural and social conditions of the region, offering recreation and rest and at the same time work out the problems mentioned above that threaten the destination's image.

This study also establishes that no significant socio-demographic differences exist between the two groups of tourists in terms of gender, age, marital status and occupation. By working with a significance level of 10%, we can conclude that clusters differ in terms of qualification level. As mentioned, around 60% of tourists belonging to cluster 2 hold a degree (the least satisfied). This percentage is lower in cluster 1. This result suggests that higher qualification levels may be related to higher demanding levels I terms of services offered by the destination. It is not atypical that tourists with higher qualification levels are potentially more judgmental when assessing places they are visiting since, very likely, they are already aware of alternative holiday destinations and, therefore, more critical in terms of assessment. However, this is a characteristic that clearly deserves further research.

Another relevant finding is that cluster membership and nationality are significantly dependent. In specific, cluster 2 registers an increased proportion of Portuguese tourists than cluster 1. This may be a consequence of the generalised feeling among Portuguese citizens that foreign tourists are better welcomed and treated than Portuguese tourists. This sentiment has some foundation because some cities of Algarve – those most dependent on tourism-related activities – resemble foreign surroundings. There are many English pubs, restaurants displaying English cable television, eateries selling only familiar English food and tourist information only in English. Moreover, most Portuguese come to Algarve at least once a year, and so are very familiar with the region. One consequence of this fact is that national tourists do not perceive the region's strengths as positively as foreign tourists. For example, the English tourist more easily appreciates the warmer climate and high quality beaches in Algarve than the national tourists do. The latter tend to be more intolerant and criticizing.

This characteristic provides empirical evidence of the need for a more careful marketing approach towards national tourists. Centring promotional campaigns on sun and beach is not enough to attract Portuguese tourists. Instead, the DMO should invest in employing more highly qualified staff in the tourism and hospitality industry, and become more involved with those responsible for arising regional problems (those depicted in Figure 7), stimulating and supporting initiatives that induce positive changes in the more critical aspects of the tourism product. Moreover, the DMO should develop specific promotional actions leading to an upgrading of the destination image since this is always an important segment of the market. First, marketing messages can be directed to show that destination problems are being addressed, demonstrating that effort is being made by municipalities to answer to expectations by visitors. Second, it becomes equally important to stimulate greater participation from those involved in the evaluation process on the tourist experience as well as more efficient management of opinions, complaints, and suggestions. Finally, because image change is a slow process, DMO should consider stakeholder involvement in developing publicity campaigns commitment aimed at the mass media at regular interval periods. Aside from major campaigns initiatives, it would be essential to represent the region under the “friendly destination concept” with marketing messages aimed at low season tourism, when the region is less congested and less marked by some of the drawbacks (such as traffic and litter problems).

Furthermore, we can also observe in the CATPCA graph that high satisfaction levels are more related to willingness to recommend than intentions to return. This result is understandable. If a tourist classifies the tourism experience as positive and pleasant it is expected that he/she recommends the destination to friends and relatives. However, revisiting destinations carries some costs, even when a previous visit was highly satisfactory. These costs can be financial, if the tourist feels that the overall travel expenses are too high and, therefore, conditioning him/her to return, or they can be opportunity-related. In fact, the tourism offer is so large that returning to an already familiar place can imply not visiting a different destination, a high opportunity cost.

This study has some limitations whose overcoming provides directions for further research.

As shown in Section 5, the data matched the estimated model. Nevertheless, and because any model is always an approximate description of reality, a different model with other observed variables could produce a similar or even improved global fit. In the proposed model, the latent constructs are measured by observed variables dictated by the previous research. As described, the analysis of the measurement model shows that, in general, they are reliable and valid measures of the corresponding constructs, even though the observed variable *met expectations* had reported a low loading (0.33) on *tourist satisfaction* (although statistically significant), especially when compared to those associated with the satisfaction variables (0.71 and 0.70, respectively). It would certainly be preferable to achieve a higher loading in this variable. However, as explained in Section 3, assessing whether tourist expectations are met or not should be considered in terms of satisfaction with the destination experience. Moreover, removing *met expectations* from the model yields worse results in almost all indices produced by the SEM analysis. Therefore, future research should contemplate *met expectations* on a more detailed scale, rather than the adopted binary approach.

Based on the SEM results, we can conclude that the first three proposed research hypotheses cannot be rejected. Some care, however, should be taken when interpreting the first hypothesis. In effect, this study only shows that tourist satisfaction is one contributing factor to tourism loyalty intentions. In other words, what is being evaluated is “destination loyalty intentions” and not “actual destination loyalty” because the observed variables only consider revisiting and recommending intentions. This aspect of how “destination loyalty intentions” leads to “actual destination loyalty” (measured for instance by a revisiting experience and whether the destination was effectively recommended as a result of a previous visit) is another topic of considerable ground for further investigation.

A final underlying detail of this study is the moderate squared multiple correlation value which was reported in the structural equation model (61.6%). Despite the model’s goodness-of-fit evidenced by all analysed indicators, there is empirical support that destination loyalty intention is explained by additional constructs besides satisfaction. This finding suggests that further work on the predictors of destination loyalty is necessary. By extending the proposed model to include other constructs in the satisfaction-loyalty relationship (such as motivations, perceptions, expectations and destination image), further examination can be made, through the use of combined statistical data analysis procedures, to better understand the tourist behaviour.

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Int. Journal of Business Science and Applied Management, Volume 1, Issue 1, 2006

Book Review:

Organization Theory: Challenges and Perspective

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Book Information

Book Title: Organization Theory: Challenges and Perspective
Author: John McAuley, Joanne Duberley and Phil Johnson
Publisher: Prentice Hall: Financial Times
Edition: 1st edition
Year: 2007
Pages: 473 pages
ISBN-13: 978-0-273-68774-0
Price: £31.34

Keywords: organisation theory, management

BOOK REVIEW

McAuley et al’s book offers an in-depth exploration of long-standing questions related to different approaches in organisation theory. Particularly pertinent for both undergraduate and postgraduate students who study organisational theory or analysis, this work goes a step beyond the traditional managerialist perspectives of organisation theory, to situate different perspectives within scholarly debates on modernism and postmodernism. In this context the book explores approaches to organisation theory from its origins through the most recent debates to examine the breath and complexity of this challenging subject. It shows how different traditions are at times intertwined and at others divided in understanding contemporary organisational dilemmas.

The book begins by outlining the nature of organisation theory in the social sciences. The main objective here is to explore the diversity of perspectives encountered when studying organisation theory. This discussion leads the way to the philosophical disputes and debates that underlie the creation of this diverse range of theories. Here the role of epistemological and ontological assumptions is carefully discussed to provide an insight into different ways of researching, analysing and understanding organisations. This is supported by the use of insightful examples to illustrate the different components of theory, a style which is adopted throughout the book.

The following chapters provide a detailed exploration of the different schools of thought in organisational theory. These include perspectives from modernist, neo modernist and post-modernist thinkers. The relationships between these different approaches are carefully examined to illustrate the ways in which different schools of thought perceive the context of organisational reality. Chapter 2 introduces modernist approaches to organisational theory which suggest the development of systems and bureaucracies as the best way of ordering and organising. In chapter 3 neo modernist accounts are explored which highlight the central role of people in organisations. In so doing the role of the human relations school as a pervasive example of the neo-organisation tradition is explored.

Having paved the way on neo modernist approaches the next chapter neatly introduces new wave theory and outlines its origins in relation to debates about control. It then discusses different theoretical explanations of the apparent spread of cultural management in contemporary organisations. Chapters 5 and 6 outline the concept of postmodernism and contrast two different approaches; the first as a period of time characterised by increased dynamism and diversity in the environment and the second as a philosophy with implications on how organisations are understood. The following two chapters provide an advanced introduction to alternative ways in studying and understanding organisations, including phenomenology, critical theory and psychoanalysis. These perspectives offer a challenging way in understanding organisations and in particular how individuals and groups construct their organisational identities and the relationship between the organisation and society. In chapter 9 a historical account of the origins and evolution of both managers as a significant organisational group and of management as a separate, hierarchical function in organisations is explored. This sets the scene for the emergence of what is termed the managerialist thesis and the implications of the different theoretical interpretations of this organisational development including the diffusion of new managerialism. Finally, the concluding chapter revisits the perspectives discussed in each chapter and applies each briefly, to a case study. It then moves on to discussing contemporary challenges in organisational theory including the debate concerning paradigms and outlines emerging trends and directions for organisational theory.

As a textbook, this book is accessible to a wide range of audiences from a variety of disciplines including Business Studies, Sociology of Organisations and Educational Studies. The book is clear, engaging and highly readable. Each chapter is structured around a series of ‘distinctive features’ including among others case studies, summaries, further reading and questions for discussion. Moreover, the use of practical examples makes it easy for the reader to relate theory to practice. It is hard to identify weaknesses, both in terms of structure and content. Overall, this book more than adequately responds to the aims that it sets out to achieve. It provides a well informed coverage of a range of theories in the field of organisation theory and sociology. A welcome edition to any student bookshelf or university library.