

## **The antecedents of Word-of-Mouth behaviour: The service quality perspective**

### **Abstract**

**Purpose** – The aim of the study is to undertake an empirical study to investigate the nature and magnitude of the determinants of the word-of-mouth behaviour from the point of view of service performance and post purchase perceptions.

**Design/methodology/approach** – A quantitative study was undertaken. A theoretical model linking service quality issues and word-of-mouth behaviour was developed and tested using structural equation model modelling of 280 surveyed participants at various day spa locations.

**Findings** – All major fit indices from structural equation modelling method show satisfactory results for both the measurement models and the structural model. The results confirm significant relationships amongst the constructs in the model. While the quality of the product, customer service and facility atmosphere lead to customer satisfaction, it is facility atmosphere and customer satisfaction that drive Word-of-mouth behaviour.

**Research limitations/implications** –The results of this study provide insight to aid owners and marketing professionals in the service industry in fully understanding that the enhancement of the delivery of high quality service, an accommodating environment and instilling feelings of satisfaction with their customers will more likely lead to positive word-of-mouth (WOM) referrals. The most obvious limitation is that the survey was conducted in one country only at this stage, pending more applications.

**Originality/value** – The major value of this study is the establishment of the role of service quality in word-of-mouth behaviour. This research provides empirical results of the impacts of service performance and post purchase perceptions on word-of-mouth behaviour.

**Article Type:**

Research paper

**Keyword(s):**

Word-of-mouth (WOM), Services Marketing, Customer Service, Customer Satisfaction, Consumer Behaviour

**Introduction**

There have been studies that have shown WOM is often a strong indicator of influencing consumer judgement of the services provided by an organisation. This is so as service quality has become an increasingly indispensable aspect for service providers in managing a successful business operation in today's competitive service market (Blose, Tankersley & Flynn 2005 and Schneider, Holcombe & White 1997).

According to Chiarelli (2006, p.42), 'word-of-mouth is now the number one most-trusted source of product information on a global scale, with advertising a distant second. Seventy percent of consumers across the globe trust friends, family, or other people first when searching for information or ideas on products to buy. In the USA eighty percent of consumers cite word-of-mouth as the most trustworthy source'. The Nielsen Company (2009) found similar results in countries such as Vietnam (81%), Italy (80%), China and France (both 77 %) and Finland (50%).

WOM can be defined as the process in which clients tell others, external to the transaction, of their (dis)pleasure with a product or service provider (Swanson & Kelly 2001). Further, the delivery of service performance results are exhibited by consumers demanding more from their relationships as well as a degree of rationalism, which are perceived to exist between those relationships (Bove & Johnson 2001 and Ward & Smith 1998) with service providers as seen through WOM behaviour (Zeithaml 2000; Rust, Zahorik & Keningham 1995; Rust & Zahorik 1993; Nelson, Rust, Zahorik, Rose,

Batalden & Siemanski 1992 and Koska 1990). WOM is thereby a powerful mechanism as a form of promotion that is generally accepted in the transmittal of information communicated to others (Dye 2000 and Buttle 1998). WOM communication will then play a specifically essential role for service providers, as intangibility makes the pre-purchase assessment of services unfeasible (Zeithaml, Parasuraman & Berry 1985; Zeithaml, 1981 and Berry 1980).

WOM can perform a predominantly meaningful function for those service providers who have significant credibility and visibility within a community, such as services rendered by those professional or financial organizations (Sweeney, Soutar, & Mazzarol 2008), in particular those services provided by the day spa industry as indicated in this study. This is more so the case where people, who partake in intimate, relaxing and therapeutic experiences in a day spa setting, initiate communication processes in which they will share parts of their private experiences with various social partners (Dobele, Lindgreen, Beverland, Vanhamme & van Wijk 2007). While the importance of WOM cannot be emphasised enough, research gaps remain in the issues that affect WOM behaviour from the service quality perspective.

### **Literature Review on WOM Behaviour**

Consumers may prefer personal information sources when they are going to buy from or use a service provider due to the confidence they have in those sources (Murray 1991). Many consumers may be influenced more by WOM communications than they are, for example, by printed formats (Herr, Kardes & Kim 1991). Research, however in the WOM context has been generally regarded as opinion leadership research, or the process that an ‘opinion leader’ informally influences the actions or attitudes of others (Dobele 2006 and Schiffman, Bednall, Watson, & Kanuk 1997, p. 472). Opinion leaders could spread information concerning a service provider and their products quickly over a populous starting within their own circles. Information may then continue to spread to other circles and so on, as effective opinion leaders can easily create instant positive WOM for an organisation in this way (Walker 1995).

As WOM marketing by researcher's increases, the resulting effect has been the attention service providers have been placing on its validity within the community and their decreasing reliability in more traditional marketing techniques (Laemer 2004; Gladwell 2000; Silverman 2001a, 2001b; Hendricks 1998; Silverman 1997; Rust, Zahorik & Keiningham 1995; Wilson, A. 1994 and Wilson, J.R. 1994). Word-of-mouth marketing may therefore affect the implementation of new product categories because of consumer beliefs and preferences and the choice of products, which may decide the success or failure of those service providers' products (East, Hammond & Lomax 2008). A study by Dobeles, Lindgreen, Beverland, Vanhamme & van Wijk, 2007, on viral messaging, even suggested organisations that use viral marketing messages may tap into consumer's emotions thereby linking the service provider and or its products to their recipient base as a way of spreading their viral message.

The impact of WOM on consumers has been of significant interest to researchers as it relates to consumers' actions, preferences and choices (Katz & Lazarsfeld 1955). Studies have found that WOM communication has often exerted strong influence on consumer behavioural judgements on an organisation (Herr, Kardes & Kim 1991). Researchers have identified that the quality of the experience, staff friendliness, expertise and source credibility (Dobeles & Lindgreen, 2010) have also played a significant role with others reporting that the frequency of social sharing is regarded as a positive function (Derbaix & Vanhamme, 2003). Therefore service providers are placing more and more importance on WOM strategies.

Table 1 provides a sample of those researchers who have focused on the effects of WOM communication representations.

**Table 1: Research on WOM communication**

Researcher(s)	Research Focus
Dobeles & Lingreen (2010)	Study conducted to understand consumer value in health care, focusing on one context – word-of-mouth referrals by new mothers.
De Bruyn & Lilien (2008)	Developed a model to study the influence of unsolicited electronic referrals with-in a multi-stage decision making framework.
Dobeles (2006)	Studied what are the different types of positively referring clients of professional services firms and how do these types relate to the believability of the referral.
Bell & Song (2004); Garber, Goldenberg, Libai, & Muller	Studied the effects of WOM from the geographical evolution of sales data.

(2003); Foster & Rosenzweig (1995)	
Godes & Mayzlin (2004)	Demonstrated a positive relationship between online WOM and its dispersion across communities and ratings for TV shows.
Derbaix & Vanhamme (2003)	Conducted research using the critical incident technique on the emotion of surprise and its influence on word-of-mouth (WOM).
Van den Bulte & Lilien (2003); Van den Bulte & Lilien (2001); Coleman, Katz & Menzel (1966)	WOM played a significant role in the diffusion of tetracycline, and determined that a more-sophisticated decomposition of the physicians' adoption decision did, in fact, yield evidence for the role of interpersonal influence.
Biyalogorsky, Gerstner & Libai (2001)	The authors investigated the optimality of customer referral programs and show that the firm should offer rewards to customers only if they are somewhat demanding but not too demanding.
Mayzlin (2001)	The author demonstrated that the creation of anonymous online WOM may be a profitable strategy even when consumers are aware of the possibility that the firm is creating it.
Feick & Price (1987)	Suggested that there exist 'market mavens' whose influence extends across categories.
Bloch & Richins (1983); Jacoby & Hoyer (1981); King & Summers (1970); Katz & Lazarsfeld (1955)	Studied the important role played by category-level opinion leaders in the diffusion of information.
Engel, Blackwell & Kegerreis (1969); Arndt (1967); Coleman, Katz & Menzel (1966)	WOM as a key driver of service provider sales.

Through the review of the literature, it is revealed that WOM may have the biggest impact on a firm's sales because of the interpersonal relationships with acquaintances, friends and relatives. While there is argument that WOM is an important form of communication regarding customer service quality, few researchers offer insightful perspective for service providers. Opinion leaders provide information therefore interpersonal relationships with the consumer affects sales therefore marketers and service providers should market to opinion leaders. However, little guidance is offered in terms of how to actually implement this marketing strategy. In addition, there has been little research looking at WOM communication from an organisations perspective (Wangenheim & Bayon 2004). Research, in part, has focused on developing an understanding of the underlying phenomenon itself (Godes & Mayzlin 2004). Research into WOM communication has mainly occurred to establish its frequency, effect, product evaluation and social impact on relationship behavioural patterns (Alvarado 2000). Thus, there is a need to examine the antecedents of WOM to fill the research gap.

The service setting is a complex array of environmental cues which can potentially influence and affect the behavioural processes of the consumer. In the marketing literature there have been a number of theoretical focuses proposed in an attempt to assimilate environmental attributes and consumer responses into the overall framework. The delivery of performance results is exhibited by consumers demanding more from their relationships with service providers as seen through WOM behaviour (Zeithaml 2000; Rust, Zahorik & Keningham 1995; Rust & Zahorik 1993; Nelson, Rust, Zahorik, Rose, Batalden & Siemanski 1992 and Koska 1990). This research examines the relationships between various service aspects and their impacts on WOM.

### **Conceptual Model**

As a means of measuring how the service environment relates to subsequent customer perceptions and behaviours, the conceptual model classifies these constructs into three tiers: service performance, post purchase perceptions and future customer behaviour. It is conceptualised that service performance is classified as performances conducted by the service provider that measures customer service quality; leading to post purchase perceptions, which are the basis for customer's relationship formulation with the service provider. The post purchase perceptions in turn affects future customer behaviour, which is the outcome of how customers behave in a certain way following their engagement with the service provider. Service performance consists of product delivery, customer service, and facility atmosphere; post purchase perceptions comprise customer satisfaction; and future customer behaviour comprises WOM.

WOM is the process in which clients tell others, external to the transaction, of their (dis)pleasure with a product or service provider (Swanson & Kelly 2001). It indicates a customer's future referral intention. WOM is measured by five items.

Product Delivery (PROD) is the delivery of those tangible products in which the product is to be delivered such as: glasses, plates, and the quality and selection of those

products. It directly evaluates the quality of a product delivered by an organisation. In a day spa setting, it is the finished product or outcome dimension such as massages, treatments, towels and bathing areas. Eleven items were used in this study.

Customer service (CSER) is defined as the manner in which the customer receives the service product. That is the manner in which the coffee and other products were provided, which is commonly called 'customer service' (adapted from Grönroos 1990, 1984, 1982). Customer service quality reflects how well the organisation provides for consumers through the buyer-seller interaction. It is measured by ten items.

Facility atmosphere (ATOM) refers to the ambient atmospheric conditions of the physical surroundings of the service setting, in which the delivery of a product takes place. Facility atmosphere includes background characteristics of the environment such as: lights, temperature, and noise (Bitner 1992 and Baker 1987). It relates and measures the overall amenities of a service provider. From a performance perspective, facility atmosphere includes those physical evidences organisations efficiently utilise to represent facets of their product delivery where customers experience the entire physical environment. Five items were used in this study to measure the construct.

Customer Satisfaction (CUSATR)—Customer satisfactions are feelings and judgements of customers towards a product after it has been used or consumed (Jamal & Naser 2003). It relates to the overall satisfaction a consumer has with a service provider. Customer satisfaction was perceived as being evaluative and an emotion based response to a service encounter. Customer satisfaction reflects the degree to which a consumer believes the possession and/or use of a product evoked positive feelings. Six items were used to measure the construct.

## **Hypotheses Development**

### **Effect of customer perceptions of the quality of the product on customer satisfaction.**

Customers' positive perceptions can positively affect customer satisfaction. Customers often change suppliers due to the perceived indifference of employees (Keiser 1988) as well as being influenced by the outcome of the finished product to satisfy and meet their

required needs (Schiffman, Bednall, Watson & Kanuk, 1997). In today's marketplace, more businesses are increasing profits by actually saving customers' time by satisfying their wants and needs. Firms do this by training a new breed of customer-service representatives, people with the skills to get to the root cause of consumer problems and who are closely linked to the provider of the product to arrange to get the problem fixed (Womack 2006) thereby increasing customer satisfaction levels towards that service provider. Fujitsu Services of Europe, a relative newcomer to the help-desk industry, started by asking what the consumer really wants, as a means of increasing customer satisfaction, by creating a positive experience for customers (Womack 2006). Thus,

*H1: customer perceptions of the quality of the service are positively related to customer satisfaction.*

### **Effect of customer perceptions of the customer service on customer satisfaction.**

Empirical results show that customer service can affect the perceptions of that service provider's quality (for example, Dann & Dann 2004; Schiffman, Bednall, Watson, & Kanuk, 1997; Grönroos 1990; Shavitt 1989; Lehtinen & Storbacka 1986; Parasuraman, Zeithaml & Berry 1985 and Grönroos 1984), which directly effects the level of satisfaction customers have towards that provider. The influence service providers can have on satisfying their customers by how they receive and experience the services or products delivered is thereby regarded as the functional service quality of an organisation (Grönroos 1990).

Customers will assess what it is they need to obtain from an organisation, such as customer service, in choosing the product they desire or assortment options and look for social interaction from staff resulting in their needs being satisfied through this functional process (Noble, Griffith & Adjei 2006). Consumers who patronise a service provider, at times making a purchase, are actually forging a satisfied relationship with that organisation (Thompson & Arsel 2004 and McCracken 1986). It shows the importance of the service staff in service encounter. Service providers can further enhance and improve relationships by hiring staff that have previous skills and training in customer service (Ng, David & Dagger 2011). Staff performing their duties professionally can expect to enhance the customer satisfaction. Thus,



*H2: customer perceptions of the customer service are positively related to customer satisfaction.*

### **Effect of customer perceptions of the atmosphere on customer satisfaction.**

Physical settings are considered 'physical evidences' that service providers can effectively use to portray the specific elements of their product delivery that they are conveying to the consumer, and consequently satisfying those consumers experiences as they relate to the physical setting in its entirety (Berry & Parasuraman, 1991). Kotler (1973) suggests the importance of atmospherics and the influencing effect it has on consumer behaviour. The term atmospherics can influence consumer behaviour, will thereby evoke a satisfying effect on those consumers. The physical surroundings are significantly important in service settings because customers are affected by their surroundings (Bitner 1992) resulting in a satisfied or dis-satisfied experience. Atmospherics show that it is not only the people dimension that can impact the customer satisfaction level, but also the physical environment than can be controlled by the marketers. With proper management of the atmospherics such as the decor and smell, customer satisfaction level can be enhanced. Thus,

*H3: customer perceptions of the atmosphere are positively related to customer satisfaction.*

### **Effect of customer perceptions of the customer satisfaction on word-of-mouth.**

Overall customer satisfaction has an influencing effect on future customer behaviour through WOM communication and the retention of those consumers (Nguyen & LeBlanc 1998). Customer satisfaction reflects the degree to which a consumer believes the possession and/or use of a service evokes positive feelings and a willingness to communicate those feelings to others (Anderson & Fornell 1994; Bitner & Hubbert, 1994; Bolton & Drew 1994; Rust & Oliver 1994; Anderson & Sullivan 1993; Cronin & Taylor 1992; Fornell 1992; Oliver & Swan 1989; Oliver 1981, 1980, 1977 and Olson & Dover 1979). Perceived service quality, as cognitive judgement behaviour, allows the consumer to gain knowledge regarding an organisation through other means such as WOM communication, in addition to the usual experienced interaction a customer

would have with that organisation (Liljander & Strandvik 1994). Consumers are apt to react and behave in a certain way such as referring a service provider to their friends based upon the positive service setting created by providers. Thus,

*H4: customer perceptions of the customer satisfaction are positively related to word-of-mouth behaviour.*

#### **Effect of customer perceptions of the atmosphere on word-of-mouth behaviour.**

The ability of the physical environment of a service setting to influence behaviour (Wall & Berry 2007) and to create an image has been particularly apparent for service providers in attracting new customers through WOM referrals such as hotels, restaurants, professional offices, banks and retail stores. The environment of a retail store, for example, can serve as an important differential or competitive advantage in attracting particular segments of shoppers through future behavioural response producing stimulus (Turley & Chebat 2002). The physical environment can offer alternative cues, which consumers may share in a social setting to recommend a service provider and to further evaluate the quality of service provided (Bitner 1992, 1990 and Berry 1983). The physical environment can provide a basis for customers to express their approval or disapproval. Thus,

*H5: customer perceptions of the atmosphere is positively related to word-of-mouth behaviour.*

#### **Research Methodology**

With an aim to increasing the sample size and the representativeness, the day spa industry association was contacted to help facilitate the study. Three spas agreed to participate in the study. Surveys were conducted in the three spas in a period of one and a half months. A total of 318 usable questionnaires were received. After deleting the outliers, there were 280 cases usable for further analysis.

Table 1 presents the results of the Bartlett's test of sphericity and KMO measure of sampling adequacy. All constructs achieved a significant p-value, less than 0.001 for

Bartlett's test of sphericity and more than 0.65 values for the KMO measure of sampling adequacy, satisfying De Vaus' (2001) proposed cutoff. The results of the tests suggest that the items are suitable for factor analysis.

**Table 2: Test of Sphericity and Measure of Sampling Adequacy**

<b>Constructs</b>	<b>KMO Measure of Sampling Adequacy</b>	<b>Bartlett's Test of Sphericity</b>
Quality Delivery (PROD)	0.80	Chi-Square = 1642.0 df = 55, sig. < 0.001
Customer Services (CSER)	0.92	Chi-Square = 2524.1 df = 45, sig. < 0.001
Facilities Atmosphere (ATOM)	0.71	Chi-Square = 454.2 df = 10, sig. < 0.001
Customer Satisfaction (CUSAT)	0.85	Chi-Square = 982.1 df = 15, sig. < 0.001
Word of Mouth (WOM)	0.67	Chi-Square = 972.0 df = 10, sig. < 0.001

Reliability of the items was tested by Cronbach Alpha test. Items with low item-total correction were taken out of the analysis. All Alphas are above 0.7 which indicates satisfactory internal consistency reliability (Francis, 2001; Robinson, Shaver, & Wrightsman, 1991). Table 2 shows the reliability results of all the constructs.

**Table 3: Results of a Cronbach's Alpha's reliability test**

<b>Dimension</b>	<b>Initial #</b>	<b>Initial</b>	<b>Items</b>	<b>Revised</b>	<b>Revised</b>
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	of items	Alpha	Deleted	# of Items	Alpha
Quality Delivery (PROD)	11	0.72	8 (after reliability and CFA)	3	0.84
Customer Services (CSER)	10	0.93	5 (after CFA)	5	0.92
Facility Atmosphere (ATOM)	5	0.78	2 (after CFA)	3	0.71
Customer Satisfaction (CUSAT)	6	0.88	3 (after CFA)	3	0.83
Word of Mouth (WOM)	5	0.83	3 (after CFA)	2	0.94

Refer to Appendix A for all the items

#### Convergent validity

Convergent validity was tested using the criterion that the loadings of all items hypothesised to measure a latent variable must be statistically significant (Anderson & Gerbing, 1988; Dunn, Seaker, & Waller, 1994; Hair, Anderson, Tatham, & Black, 1998). The critical ratios (c.r.) of all the items were found significant at the 0.05 level ( $c.r. > 1.96 = p < 0.05$ ), showing strong convergent validity of the measurement model.

#### Discriminant Analysis

Discriminant validity was tested by two methods. The first method was to measure the average variance extracted (AVE) in confirmatory factor analysis. If the average variance extracted (AVE) is greater than the squared correlation between pairs of factors, discriminant validity exists (Fornell & Larcker, 1981). Results of the tests were found satisfactory. All AVEs showed higher values than the squared correlations. The

upper diagonal of Table 3 shows the results of the squared correlation among the constructs. The results suggested that discriminant validity was supported.

**Table 4: Discriminant Valid Test Using AVE and Correlation Methods**

Constructs	AVE	PROD	CSER	ATOM	CUSAT	WOM
<b>PROD</b>	.64	---	.17	.12	.44	.09
<b>CSER</b>	.70		---	.16	.44	.24
<b>ATOM</b>	.50			---	.41	.32
<b>CUSAT</b>	.61				---	.41
<b>WOM</b>	.84					---

The second method used to test discriminant validity is the examination of all constructs in pair in exploratory factor analysis (EFA). Discriminant validity exists if there are only two components extracted from each analysis (Anderson & Gerbing, 1988). EFA using principal components with varimax rotation was conducted. For all of the ten *pairs* of constructs in this study, there were always two components extracted for each pair of concepts. Thus, the results indicate discriminant validity.

#### Measurement and Structural Model Analysis

This study adopted a two-step approach in analyzing the theoretical model as suggested by Anderson and Gerbing (1988). That is a measurement model analysis was conducted before a full structural model. Hair et al. (1998) propose a guideline for establishing acceptable fit using five typical fit indices to evaluate the theoretical model; namely  $\chi^2$ , AGFI, CFI, RMSEA, and SRMR. In consideration of the limitation of the  $\chi^2$  value with big sample size, normed  $\chi^2$  with a cutoff less than three instead of  $\chi^2$  should be used (Carmines & McIver, 1981; Kline, 1998). All five absolute and incremental fit indices measures performed very well for the measurement models:  $\chi^2 / DF = 1.54$ ,

AGFI = .92, CFI = .98, RMSEA = .04, and SRMR = .04. Thus, the items were found to measure their proposed latent constructs.

#### Evaluation of the Full Structure Model

Based on the protocol suggested by Cheng (2001) and Anderson and Gerbing (1988), evaluation of the full model starts with assessment of the model fit. The full conceptual model was analysed by structural equation modeling method based on the indices of AGFI, RMSEA, CFI, Normed chi-square and SRMR. The results of all these indices are satisfactory, indicating an acceptance of the full model.

The results of all the fit indices for the structural model are also satisfactory:  $\chi^2 / DF = 1.60$ , AGFI = .91, CFI = .98, RMSEA = .05, and SRMR = .04. The fit indices suggest an acceptance of the full model. Table 4 below summarises the values for all fit indices.

**Table 5: Fit Measures for the Full Structural Model**

Fit indices	Statistics	Benchmark	Acceptable or not
<i>Absolute fit measures</i>			
Chi-square	153.15 (96 df, p<0.01)	p>0.05	N/A
AGFI	0.91	>0.90	Yes
RMSEA	0.05	<0.08	Yes
<i>Incremental fit measures</i>			
CFI	0.98	>0.90	Yes
<i>Measures taking into consideration of big sample size</i>			
Normed chi-square	1.60	<3	Yes
Standardised root mean square residual (SRMR)	0.06	<0.08	Yes

Note: All five paths in the model achieved significant results statistically; all with p-values associated with the parameter coefficients less than 0.05

A graphical illustration of the fitted word-of-mouth model with correlations, the standardised regression coefficients, and the R-squared values is illustrated in Figure 1.

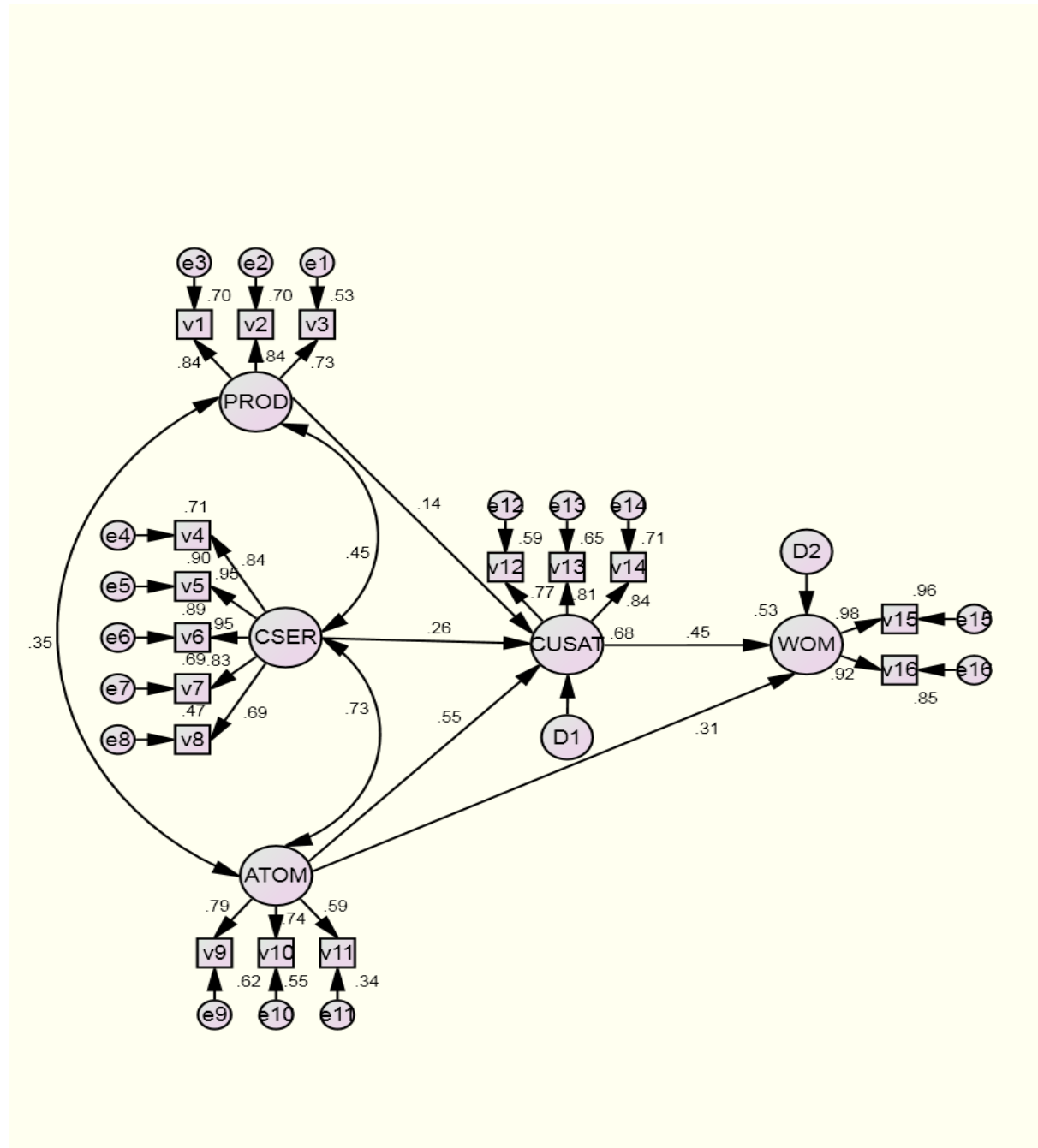


Figure 1: A fitted structural equation model of WOM

All five hypotheses in the structural model achieved statistical significant results; all with p-values less than 0.05. The paths demonstrate positive relationships *between* the

constructs. The standardised coefficients of the five paths range from 0.14 to 0.55. The three most significant paths are H3 (facilities determining customer satisfaction); H4 (customer satisfaction determining word of mouth); and H5 (facility atmosphere determining word of mouth); with standardised coefficients of 0.55, 0.45 and 0.31, respectively. These results firstly indicate the importance of customer satisfaction, which can increase the word of mouth activities by 0.45 standardised points for every standardised point increase in customer satisfaction. Secondly, facility is an important determinant of customer satisfaction such that an increase of one standardised point of facility will lead to 0.55 standardised points of higher customer satisfaction. Finally, facility is a critical influence to word of mouth activities. Every single standardised point of increase in facility can lead to an increase of word of mouth by 0.31 standardised points.

The results of hypothesis testing in terms of the standardised coefficients, critical ratio (C.R.) and significant level (p-value) for the relationships between the three tiers of constructs are summarised in Table 5.

**Table 6: Results of hypotheses testing**

<b>Model Hypotheses</b>		<b>Results</b>
<b>H1:</b> Customer perceptions of the quality of the service are positively related to customer satisfaction	Coefficient	0.14
	C.R.	2.40 (p=0.017)
	Significant?	<b>Significant</b>
<b>H2:</b> Customer perceptions of the customer service are positively related to customer satisfaction	Coefficient	0.26
	C.R.	2.93 (p=0.003)
	Significant?	<b>Significant</b>



<b>H3:</b> Customer perceptions of the atmosphere are positively related to customer satisfaction	Coefficient	0.55
	C.R.	5.21 (p<0.001)
	Significant?	<b>Significant</b>
<b>H4:</b> Customer perceptions of the customer satisfaction are positively related to word-of-mouth behaviour	Coefficient	0.45
	C.R.	4.32 (p<0.001)
	Significant?	<b>Significant</b>
<b>H5:</b> Customer perceptions of the atmosphere are positively related to word-of-mouth behaviour	Coefficient	0.31
	C.R.	2.85 (p=0.004)
	Significant?	<b>Significant</b>

## Conclusion

WOM plays an important role in marketing. The impacts of WOM have been well researched, but the antecedents of WOM have been somewhat overlooked. The current study has developed a theoretical model that places service quality as the pivot of a model of WOM. The theoretical model has been tested using structural equation modelling on a sample of 280 respondents from three spas. The results reveal that the theoretical model has overall validity and that all five key paths in the model are statistically significant. The model thus offers a good explanation of WOM. Of special significance the findings confirm that WOM is affected by customer satisfaction and facility atmosphere. In addition, service performance can drive customer satisfaction. In terms of managerial implications, organisations in the service industry are encouraged to pay extra attention on managing service performance because it can directly and indirectly influence WOM; especially important is the facility atmosphere that can affect customer satisfaction and WOM directly.

This study possesses a couple of limitations. First, the samples are gathered from only three spas in Australia. Second, all three spas are located in the Victoria state. Future research could apply this model to other service industries and countries to test the validity of the model. It would also be useful to compare the model from other theoretical perspectives that could explain the WOM behaviour. Additional research

might also examine the moderation effect of the macro marketing environment such as economic situation.

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## Appendix A: Variables used to assess the five constructs

Service Quality (PROD)
<ol style="list-style-type: none"> <li>1. The quality of massages were excellent (v1)</li> <li>2. The selection of other treatments were excellent (v2)</li> <li>3. The quality of other treatments were excellent (v3)</li> </ol>
Customer Services (CSER)
<ol style="list-style-type: none"> <li>1. I received a welcome when I arrived (v4)</li> <li>2. Staff appeared neat and tidy (v5)</li> <li>3. Staff were polite (v6)</li> <li>4. Staff performed their duties professionally (v7)</li> <li>5. I was served in an acceptable time (v8)</li> </ol>
Facility Atmosphere (ATOM)
<ol style="list-style-type: none"> <li>1. I like the decor (v9)</li> <li>2. The Day Spa has a nice atmosphere (v10)</li> <li>3. The Day Spa had a pleasant smell (v11)</li> </ol>
Customer Satisfaction (CUSAT)
<ol style="list-style-type: none"> <li>1. Services I received were adequate (v12)</li> <li>2. I felt comfortable with the physical surroundings of the facility (v13)</li> <li>3. Overall, I was satisfied with the product(s) and services(s) (v14)</li> </ol>
Word-of-Mouth Behaviour (WOM)
<ol style="list-style-type: none"> <li>1. I WILL REFER THIS Day Spa to other people (v15)</li> <li>2. If asked to recommend a day Spa facility to other people, I would tell them about this Day Spa (v16)</li> </ol>