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How is Customer Commitment Related to the Complexity of a Service?

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Abstract

Purpose - The aim of this article is to explain how customer commitment, measured as affective, continuance, and normative commitment, relates to the complexity of a service.

Design/methodology/approach - Data were collected from a questionnaire distributed to practicing dentists in Sweden, which capitulated a sample of 128 respondents. Nine hypotheses were tested in T-tests, Pearson's correlation test and regression analyses.

Findings – Results show that customer commitment is significant related to the complexity of a service. Affective commitment is found to be strongest in a complex service while continuance commitment is stronger in a simple service.

Research limitations/implications – The research show how customer commitment differs between a complex and a simple service which can be used by managers and marketers when they design marketing activities. The results can also be used as a basis for market segmentation according to commitment dimensions.

Originality/value – The value of this research resides in the findings that there is support for that the complexity of the service is affecting the degree and dimension of commitment. To the author's knowledge little research has focused on the complexity of a service and its effects on customer commitment.

Keywords Commitment, services marketing

Paper type Research paper

Introduction

A shift from a goods-dominant view to a service-dominant view where relationships, processes and intangibility are central has evolved in the marketing literature (Vargo and Lusch, 2004; Jensen Schau, Muniz and Arnould, 2009). The nature of services, with buyer-seller interactions as a substantial part of the service process makes the relationship between the buyer and seller an important part of marketing, even more so than in traditional manufacturing firms (Jones, Fox, Taylor and Fabrigar, 2010). This is especially true in a business to business context where a long-lasting relationship is central for the firms to achieve important outcomes (Caceres and Paparoidamis, 2007). A significant part of relationship marketing is commitment which has been widely studied since Morgan and Hunt's development of their commitment-trust theory in 1994 (Jones *et al.*, 2010) which is

considered to be the foundation of relationship marketing (Veloutsou, Saren and Tzokas, 2002). The authors claim that commitment is central to relationship marketing which is supported by several studies. Researchers agree that mutual commitment among partners in a business relationship is significant in creating benefits for firms (Morgan and Hunt, 1994; Wetzels, de Ruyter and van Birgelen, 1998). The three-component model of commitment (Allen and Meyer, 1991) is widely used as the basis for understanding and analyzing commitment. It contains three dimensions of commitment; affective (desire-based), continuance (cost-based) and normative (obligation-based) (Bansal, Irving and Taylor, 2004). Affective commitment is about emotions and personal attachment; the individual or organization commits to an organization because of emotional and personal reasons. Continuance commitment means that the commitment is based on the costs that may occur by leaving the relationship. Normative commitment means that the commitment is based on moral beliefs and obligations (Allen and Meyer, 1990). Each of these dimensions contributes to an individual or organization's willingness to commit to an organization. If the commitment is based on affective grounds the individual/organization commits because they want to. If the reasons to commit are on a continuance ground, the individual/organization commits because they have to. Those individuals/organizations with a normative commitment commits because they feel they ought to (Rego, Leite, Carvalho, Freire and Vieira, 2004).

Services can be classified in numerous ways. The amount of personal encounters with the service provider is one way to classify services (Silvestro, Fitzgerald, Johnston and Voss, 1992). Grönroos (2007) distinguishes between high-touch and high-tech services where high-touch services involve interactions between people and high-tech services are predominantly based on automated systems. This classification of services has been proposed by Kotler (1988) as well, he distinguishes between people-based and equipment-based services (Godlevskaja, van Iwaarden and van der Wiele, 2011). A high-touch service is dependent on people who are actively taking part in the service process whereas high-tech services are technology based, for example internet shopping. In the present study a complex service is defined as a high-touch service and a simple service is defined as a high-tech service. One can argue for that using the internet to purchase a service or using an ATM machine is simpler than services that require personal interactions and participation by the customer as well as the seller.

Researches on commitment in the service sector have mostly focused on the relationship between commitment and service quality (Wetzels *et al.*, 1998; Sharma and Patterson, 1999),

commitment and trust (Gounaris, 2003; Kingshott and Pecotich, 2007), its effect on profitability (Stanko, Bonner and Calantone, 2006), and how commitment can be developed (Mukherjee and Nath, 2007). Thus, there has not been much emphasis on which dimension and what grade of commitment customers have towards different types of services. Bansal *et al.* (2004) found support for differentiate between the commitment dimensions and their respective impact on the variables of interest. The purpose of the present study is to assess which dimension of commitment and the degree of respective commitment dimension firms have with its suppliers of services depending on the complexity of the service. The aim is to assess if there are any differences in customer commitment between a complex and a simple service. The results can be used as a basis for a framework for segmenting the market based on the dimension and degree of commitment between the customer and respective service provider. There is support in the literature for that the degree of relationship marketing activities should differ depending on the type of service (Ward and Dagger, 2007). The study contributes by evolving which dimension of commitment is highest (and lowest) in the relationship between the customer and the provider of a complex service, and between the customer and the provider of a simple service. With this knowledge service providers can better customize and direct its marketing efforts towards its different customers.

A description of the background to the study including a review of commitment provides the basis for several hypotheses. This is followed by an empirical study where the hypotheses are tested and examined. The paper continues with a discussion and practical implications for managers followed by limitations of the study and suggestions on future research.

Background

Several definitions of commitment can be found in the fields of marketing, psychology and organizational behavior (Jones *et al.*, 2010). In the organizational behavior field Meyer and Allen (1991) argue that commitment is a psychological state composed of different dimensions. This has been translated to the marketing field by Bansal *et al.* (2004) among others. Bansal *et al.* (p. 236) conceptualize commitment as “a force that binds an individual to continue to purchase services”. Bansal *et al.* found support for Meyer and Allen’s three-component model in the marketing context; that is, the three dimensions of commitment are related to customers’ willingness to stay with a service provider.

Commitment is described by Morgan and Hunt (1994, p. 23) as “an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum

efforts at maintaining it". This definition corresponds to that of Moorman, Zaltman and Deshpande (1992, p.316), they give the following definition: "Commitment to the relationship is defined as an enduring desire to maintain the relationship". Hence, commitment can be seen as a desire for both parties in a relationship to continue the relationship.

In the organizational behavior field, employees' commitment to their organization has been found to be influenced by job level/rank (Brooks, 2002). Since the present study aims at examining commitment in an inter-organizational context the findings from the organizational behavior field has to be translated to the inter-organizational field. Therefore, one can argue for that job level in an intra-organizational context is synonymous to complexity of the service in an inter-organizational context. A person at a higher level in an organization can be assumed to have more complex tasks than a person at a lower level. Based on studies in the organizational behavior field as well as the above reasoning, this study makes the assumption that customer commitment is positively related to the complexity of the service.

H^1 : Commitment is positively related to the complexity of the service.

Relationship length and commitment

The length of the relationship between the buyer and supplier may also have an impact on how high the degree of commitment is. Stanko *et al.* (2006) hypothesized that there is a relationship between relationship length and commitment; their results did not support the hypothesis. However, other studies have found some support for that there is a relationship (Stanko *et al.*, 2006). One can argue for that there might be a relationship between affective commitment and the length of the relationship since individuals tend to develop emotions over time which might affect the commitment. Over time, partners learn about each other and develop expectations (Dwyer *et al.*, 1987) and confidence in the relationship (Anderson and Weitz, 1989). This in turn can increase the commitment in the relationship (Stanko *et al.* 2006). Therefore, one can say that relationship length may have a positive relationship with affective commitment.

Relationship length may also relate to continuance commitment, especially in a complex situation since there may be substantial switching costs when terminating a long-term relationship. This is supported by Weiss and Anderson (1992) who state that perceived switching costs increases over time (Stanko *et al.*, 2006). Over time partners in a relationship develop routines to coordinate activities (Stanko *et al.*, 2006) and this may create switching

costs. One might claim that due to the switching costs that might occur when terminating a long-term relationship continuance commitment is higher the longer the relationship has developed.

Finally, relationship length is also predicted to relate positively to normative commitment. If the customer's significant others have purchased from the same service provider for a longer period of time it might affect the customer's normative commitment towards a service provider resulting in a higher degree of normative commitment (Allen and Meyer, 1990).

H^2 : Relationship length is positively related to commitment.

Three-component model

In this study affective commitment is defined as the psychological bonds based on emotions that a customer has with its service provider (Jones *et al.*, 2010). Allen and Meyer (1990) describe affective commitment as an emotional state where the individuals identify with the organization and enjoy being committed to the organization. Studies have shown that affective commitment has a positive effect on customers' willingness to stay with a service provider (Gounaris, 2005). Two antecedents of affective commitment in the organizational behavior field are goal difficulty and job challenge (Allen and Meyer, 1990). This can be translated to the inter-organizational relationship between a customer and a service provider; in the present study the complexity of the service is synonymous to goal difficulty and job challenge. In a situation where the service can be considered to be simple one can argue for that customers have a lower degree of affective commitment than in situations where the service is complex. This is because in purchases of complex services the customer may be more involved and engaged than in a purchase of a simple service. The amount of time the customer has to devote to the purchase is assumed to be higher in complex situations; therefore the customer may attach more emotions to the service provider than in a simple situation. These arguments find support in the organizational behavior field where studies have shown a positive relationship between affective commitment and goal difficulty and job challenge (Allen and Meyer, 1990; Simola, 2010).

H^3 : The degree of affective commitment is higher the more complex the service is.

Continuance commitment is defined as a cost-based attachment. It binds the consumer to the service provider because of a constraint-based force (Bansal *et al.*, 2004) and is based on

dependence and switching costs (Fullerton, 2004). Since it might be easier to terminate the relationship with a provider of a simple service than in a complex situation one can argue for that continuance commitment might be lower when purchasing a simple service. One reason for this could be lack of alternatives (Meyer and Allen, 1997) in the case of a complex service. A complex service might involve a higher degree of switching costs and dependence; hence, the continuance commitment might be higher. This is supported by studies in the organizational behavior field which have shown that the investments employees have made are positively correlated with continuance commitment (Allen and Meyer, 1990; Powell and Meyer, 2003).

H^4 : The degree of continuance commitment is higher the more complex the service is.

Normative commitment can be defined as an obligation to stay with the organization (Meyer and Allen, 2002). The individual stay with an organization because he/she ought to and because he/she believes it is the right thing to do (Bansal *et al.*, 2004). There is a lack of studies on normative commitment in the marketing field. However, drawing upon the organizational field one can translate the theories to the marketing field. An individual might have a high degree of normative commitment towards an organization if significant others have stressed the importance of loyalty towards the organization and if they have been long-term committed to an organization. Also, normative commitment can evolve from the organization's practices and expectations on that the individual stays with the organization (Allen and Meyer, 1990). Studies have found a positive correlation between affective commitment and normative commitment (Bansal *et al.*, 2004) and since affective commitment is hypothesized to relate positively with the complexity of the service in the present study one might argue for that it is true for normative commitment as well.

H^5 : The degree of normative commitment is higher the more complex the service is.

As hypothesized above, all three components are proposed to correlate positively with the degree of complexity of the service. However, since there is support for the three-component model and support for that there might be differences between the dimensions and its antecedents and outcomes (Bansal *et al.*, 2004; Allen and Meyer, 1990) one might argue for that not all three dimensions are equally correlated with the complexity of the service.

Studies have shown how affective and normative commitment is positively associated with coproduction (Gruen, Summers and Acito, 2000) and how continuance commitment is

negatively related to customers' willingness to stay in a relationship as well as to invest in the relationship (Gounaris, 2003). Mattsson (2000) claim that the abilities of the salesperson in the service encounter is crucial in a complex situation (Jayawardhena, Souchon, Farrell and Glanville, 2005) which can be interpreted as personal encounters are influencing the customer's satisfaction with the service provider. Synonymous to satisfaction is happiness and enjoyment which are established measurements of affective commitment (Jones *et al.*, 2010; Gounaris, 2004). If a customer has developed positive emotions like enjoyment towards a service provider it might lead to that other emotions, like obligation (normative commitment), also become stronger. Moreover, social interactions are more important than technology when forming perceptions of quality in a business to business context (Jayawardhena *et al.*, 2005), that is, emotions are more easily formed in a complex situation. One might say that the degree of affective and normative commitment is higher than the degree of continuance commitment in a complex situation due to the established relationship between personal encounters and customers' emotions towards their service provider. Since emotions are found to be connected to personal encounters one can make the assumption that other aspects such as costs are not equally important. Thus, there are differences between the three commitment dimensions in a complex situation. Affective and normative commitment is hypothesized to be higher than continuance commitment.

H^6 : The degree of affective commitment is higher than the degree of continuance commitment in a complex situation.

H^7 : The degree of normative commitment is higher than the degree of continuance commitment in a complex situation.

In a situation where the service is simple continuance commitment might be higher than affective and normative commitment. An automation of services is cost effective (Proenca and Rodrigues, 2011; Siferd, Benton and Ritzman, 1992) and may reduce costs for the customer which can be one of the main reasons for customers to use a simple service. Since studies have found that personal encounters are influencing customers' emotions (Jayawardhena *et al.*, 2005) the lack of personal encounters may reduce the amount of emotions (affective and normative commitment) to the service provider. The lack of emotions influencing the commitment to the service provider makes other aspects such as costs (continuance commitment) more important for the customer and her/his commitment towards

the service provider. The cost reductions combined with a lower degree of emotions attached to the provider of a simple service are aspects that support arguments for that the degree of continuance commitment is higher than affective and normative commitment in a simple situation.

H^8 : The degree of continuance commitment is higher than the degree of affective commitment in a simple situation.

H^9 : The degree of continuance commitment is higher than the degree of normative commitment in a simple situation.

Method

This section includes the methodology and responses from a customer questionnaire. The questionnaire was developed to test the nine hypotheses presented previously. The questionnaire contains questions and statements regarding the three dimensions of commitment, relationship length and number of yearly-employed.

Sample

The sample frame for the study consists of Swedish dentists who are members of Praktikertjänst, Sweden's largest corporate group consisting of private owned dentist practices. The questionnaire was sent out through e-mail to 922 practices. Each participant was asked to answer eighteen statements regarding their commitment to their respective service provider of a complex and a simple service. The questionnaire also includes two questions regarding the length of the relationship with respective service provider and one question regarding the number of yearly-employed. After a reminder was sent out the final sample were 128 responses for a response rate at 13, 9%. It is not possible to identify who the respondents are which makes a failure analysis somewhat vague. However, some of the non-participating practices informed about the reasons for not participating including lack of time as well as reorganization. One might draw the conclusion that the arguments are representative for the whole sample, especially the lack of time argument since the descriptive statistics show that the majority of the respondents are smaller practices indicating that this is the case for the total sample as well and they may not have as much time to answer questionnaires as larger practices with more employees. This argument may also be true when arguing for that the final sample is representative for the total sample.

To identify the supplier of a complex and a simple service the respondents were instructed to themselves identify an appropriate supplier based on examples of a complex as well as a simple service provided in the questionnaire.

Descriptive statistics of the sample is presented in table 1 and 2. In table 1 descriptive statistics for commitment is presented, including mean and std. for each statement. In table 2 descriptive statistics, including mean and std., on relationship length and number of yearly-employed is presented. The number of yearly-employed is predominantly between 1 and 5; the sample consists mostly of smaller practices making further testing unnecessary since the sample does not provide any meaningful differences.

Measures

The questionnaire contains multiple items adapted from Jones *et al.* (2010), originally developed by Allen and Meyer (1997), and from Gounaris (2005), originally developed by Kumar *et al.* (1994) and Greyskens and Steenkamp (1994). Three items were adopted for affective, continuance and normative commitment respectively. All scale items were measured on seven-point Likert scales (1= strongly disagree, 7= strongly agree). All items have been shown to be generalizable to a marketing context (Gruen *et al.*, 2000; Jones *et al.*, 2010), thus they can be meaningfully used in the present study. To assure reliability Cronbach's alpha-test was performed on all items. The value was just under 0.7 which is acceptable albeit on the lower cut-off edge. To measure relationship length the respondents were asked to specify the length in years. To analyze and test the hypotheses the means were calculated (see table 1) and paired-sample T-tests, Pearson's correlation test and linear regression analyses were performed.

Table 1. Descriptive Statistics- Commitment

	N	Minimum	Maximum	Mean	Std. Deviation
ACC1	128	2	7	6.01	1.21
ACS1	127	1	7	4.18	1.74
ACC2	126	1	7	5.56	1.76
ACS2	125	1	7	2.74	1.81
ACC3	126	2	7	6.32	1.06
ACS3	127	1	7	5.36	1.56
CCC1	124	1	7	1.84	1.33
CCS1	125	1	7	2.30	1.81
CCC2	127	1	7	4.39	2.09
CCS2	126	1	7	3.58	2.09
CCC3	128	1	7	2.45	1.88
CCS3	128	1	7	3.29	2.28
NCC1	128	1	7	3.32	1.97
NCS1	128	1	7	1.41	.94
NCC2	128	1	6	1.77	1.30
NCS2	128	1	7	1.33	.85
NCC3	128	1	7	2.48	1.72
NCS3	126	1	7	1.45	.99
Valid N (listwise)	115				

Notes: ACC= Affective commitment complex service, ACS= Affective commitment simple service, CCC= Continuance commitment complex service, CCS= Continuance commitment simple service, NCC= Normative commitment complex service, NCS= Normative commitment simple service

Table 2. Descriptive Statistics-Relationship length, yearly-employed

	N	Minimum	Maximum	Mean	Std. Deviation
Yearly-employed	126	0	25	3.87	3.03
Relationship length (complex)	126	1	55	15.32	9.86
Relationship length (simple)	122	1	55	16.37	10.51
Valid N (listwise)	121				

Results

To examine the relationship between the three dimensions of commitment and the complexity of the service, and to test the hypotheses the means for all items were compared in paired sample T-tests. The paired sample T-test was appropriate since all respondents were asked to answer all statements two times, one answer for a complex situation and one answer for a simple situation for the purpose of comparing the answers and find differences between a

complex and a simple service. The T-test was performed on each pair of answers (each statement) as well as on commitment as a one-dimensional construct. The results can be seen in table 3 and 4.

Table 3. Paired sample T-test- Statements

	Paired Differences						t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
				Lower	Upper				
AC									
Pair 1	1.82	1.93	.17	1.48	2.16	10.63	126	.000	
Pair 2	2.85	2.44	.22	2.41	3.28	12.92	122	.000	
Pair 3	.96	1.64	.15	.67	1.25	6.55	124	.000	
CC									
Pair 4	-.46	1.41	.13	-.73	-.22	-3.73	121	.000	
Pair 5	.82	1.98	.18	.47	1.17	4.61	124	.000	
Pair 6	-.84	2.11	.19	-1.21	-.48	-4.53	127	.000	
NC									
Pair 7	1.91	2.03	.18	1.55	2.26	10.65	127	.000	
Pair 8	.45	1.45	.13	.19	.70	3.48	127	.001	
Pair 9	1.02	1.67	.15	.72	1.31	6.82	125	.000	

Notes: AC= Affective commitment, CC = Continuance commitment, NC = Normative commitment

The most notable with the results is that all of the tests show significant differences at a 0.01 and 0.0 level (see appendix 1 for more detailed information) which imply that there are significant differences in commitment between a complex and a simple service. In seven out of nine statements the test showed a positive relationship between commitment and the complexity of the service, for two of the statements on continuance commitment the test showed the opposite results, a negative relationship between continuance commitment and the complexity of the service.

To test hypothesis 1, commitment is positively related to the complexity of the service, the three commitment dimensions were computed into a one-dimensional variable for a complex service and a one-dimensional variable for a simple service and tested in a paired sample T-test. The results are displayed in table 4. As can be seen in table 4 this test also shows a significant difference at a 0.01 level supporting that there is a difference in commitment

between a complex and a simple service. The difference is positive which supports the hypothesis that commitment is positively related to the complexity of the service.

Table 4. Paired sample T-test- one-dimensional commitment construct

	Paired Differences							
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1	.96	.92	.09	.79	1.13	11.26	114	.000

To test hypothesis 2, relationship length is positively related to commitment, Pearson's correlation test and linear regression analysis was used. Regression analysis was used on one of the item that showed a positive correlation in Pearson's correlation test and the aim was to find if the length of the relationship (independent variable) is affecting the degree of commitment (dependent variable). The test did not support any relationship between relationship length and commitment (see appendix 2) leading to a rejection of hypothesis 2. Furthermore, hypothesis 3, the degree of affective commitment is higher the more complex the service is, hypothesis 4, the degree of continuance commitment is higher the more complex the service is, and hypothesis 5, the degree of normative commitment is higher the more complex the service is, were all tested in paired sample T-test as mentioned in the previous section. Hypothesis 3 and 4 are accepted since the tests supports on a 0.01 and a 0.0 significance level that there is a positive relationship between affective and normative commitment and the complexity of the service (see table 3). Continuance commitment showed a negative correlation with the complexity of the service in two of the three statements. Therefore, hypothesis 5 is rejected (see table 3).

To test hypothesis 6, the degree of affective commitment is higher than the degree of continuance commitment in a complex situation, hypothesis 7, the degree of normative commitment is higher than the degree of continuance commitment in a complex situation, hypothesis 8, the degree of continuance commitment is higher than the degree of affective commitment in a simple situation, and hypothesis 9, the degree of continuance commitment is higher than the degree of normative commitment in a simple situation, the weighted average for each commitment dimension was calculated and compared. The results are shown in table 5 and table 6. Hypotheses 6 and 9 are accepted while hypotheses 7 and 8 are rejected.

Table 6. Weighted average- commitment (complex service)

	N	Minimum	Maximum	Mean	Std. Deviation
Affective-complex	124	1.67	7.00	5.96	1.12
Continuance-complex	123	1.00	7.00	2.92	1.23
Normative-complex	128	1.00	6.67	2.53	1.41
Valid N (listwise)	120				

Table 7. Weighted average- commitment (simple service)

	N	Minimum	Maximum	Mean	Std. Deviation
Continuance-simple	124	1.00	6.33	3.06	1.41
Affective-simple	124	1.33	7.00	4.08	1.34
Normative-simple	126	1.00	4.00	1.40	.64
Valid N (listwise)	121				

Overall, the results show the following:

- There are significant differences between the degree of commitment in a complex situation and in a simple situation,
- The degree of affective and normative commitment is higher in a complex situation than in a simple situation; and
- The degree of continuance commitment is higher in a simple situation than in a complex situation.

Next, the implications of these results are discussed.

Discussion and practical implications

The purpose of this study was to examine if there are any differences in commitment between a complex and a simple service and to provide a basis for a framework for segmenting the market based on the results. It was hypothesized that there are differences in commitment between a complex and a simple service and that all three commitment dimensions are positively related to the complexity of the service. Relationship length was also hypothesized to have an impact on commitment.

The results in the present study show that there are significant differences between a simple and a complex service regarding the degree of commitment. In hypothesis 1 it was predicted

that commitment as a one-dimensional construct is positively related to the complexity of the service. The results of the paired samples T-test show that there are significant differences and that the complexity of the service has an impact on the degree of commitment which supports the hypothesis. The result implies that customers develop a stronger commitment towards their supplier of a complex service than towards their supplier of a simple service.

Since the purpose was to find if there are any significant differences between the three commitment dimensions, tests were performed on all of them separately. All of them were hypothesized to correlate positively with the complexity of the service. The results show a significant difference between a complex and a simple service for all commitment dimensions, affective and normative commitment showed a positive correlation with complexity while continuance commitment showed a negative correlation. Since both affective and normative commitment were hypothesized to correlate positively with the complexity of the service the hypotheses were accepted. This means that the more complex the service is the higher the degree of affective and normative commitment is. This result can be of great value for managers and marketers when deciding on what marketing efforts to use for which segments. When the service can be considered to be complex the present study show that it might be of value to concentrate the efforts on creating affective and normative commitment; that is, to concentrate on emotions rather than on the monetary implications of purchasing the service. Continuance commitment was also hypothesized to correlate positively with the complexity of the service. However, the results did not show support for this. Two out of three statements were found to correlate negatively with the complexity of the service indicating that continuance commitment is stronger when the service is simple. One reason for the result can be that in a simple situation where a large part of the service process is automated, costs become the most crucial reason for committing to a specific supplier while in a complex situation that involves more personal encounters with the service provider other aspects become more important, such as personal feelings towards the company or salesperson. When the service is simple the marketing efforts should be focused on the monetary aspects of purchasing the service, such as the costs that can be saved by staying committed to the company.

It was also hypothesized that there are differences in degree between affective, continuance and normative commitment in a complex situation as well as in a simple situation. The results show that affective commitment is higher than both continuance and normative commitment in a complex situation which is consistent with hypotheses 6 and 7. This was also the case in a

simple situation even though the present study hypothesized that continuance commitment is higher than both affective and normative commitment (hypotheses 8 and 9). The result strongly shows that affective commitment is dominant in both a complex service and a simple service even though the mean is higher in a complex service, 5.96 in a complex service and 4.02 in a simple service. The results imply that focus for marketing efforts should be on the customers' emotions and feelings, especially when offering a complex service. Investments in excellent and service-minded salespersons could be more profitable when offering a complex service as well as advertisement that create favorable emotions towards the company and its services. These efforts may create loyal and committed customers and should be maintained throughout the relationship. When the service is simple the results show that it could be beneficial for the company to focus more on the monetary aspects, for example by providing discounts to loyal customers; however, not exclusively. Normative commitment showed the lowest mean of the three commitment dimensions for both a complex and a simple service. This indicates that customers do not commit because they feel they ought to. However, normative commitment is higher in a complex situation which is consistent with hypothesis 5. The reason could be that normative commitment show a positive correlation with affective commitment and since affective commitment is higher in a complex service, so is normative commitment. Even though the relationship between affective and normative commitment was not hypothesized the results may have implications for managers and marketers. The results support that affective commitment has the strongest correlation with the complexity of the service. By focusing on the customers' emotions affective commitment might be developed, which may lead to that the customers also feel a stronger normative commitment.

Relationship length was hypothesized to correlate positively with commitment and tested in Pearson's correlation test. One item measuring affective commitment showed a significant correlation with relationship length, none of the other items were found to correlate on a significant level. Regression analysis was performed on the item that showed a significant correlation with relationship length and the result showed a low value on R square indicating that the impact of relationship length on affective commitment is on a modest level. Since eight out of nine items did not correlate the conclusion that can be drawn is that relationship length is not affecting commitment and therefore the hypothesis was rejected. The findings are consistent with the results of Stanko *et al.* (2007).

The most important contribution from the present study is that commitment is shown to be positively related to the complexity of the service. The results provide a basis for developing a

framework for market segmentation which was the overall goal of the present study. It is apparent that managers and marketers should focus on building affective commitment in a complex situation which in turn may have an impact on normative commitment. When the service is simple it seems to be more useful to aim the efforts at the monetary aspects of the market offering but also focus on emotions and feelings to build a strong relationship with the customers.

Limitations and future research

The sample of 128 respondents is somewhat low which of course may have an impact on the results of the study. Also, the sample consists of dentist and the results may not be generalized to other industries. The reason for choosing to use only dentists in the study was to get consistency in the formulation of the statements and the answers, especially when it comes to the definition of a complex and a simple service. Because of the limitations of the sample the results of the study should be used as an indication on that commitment is correlated with the complexity of the service and as a basis for further studies in the field, not as a definite result.

Since the aim of the study was to provide results to be used as a basis for a framework for market segmentation according to different commitment dimensions future research can aim at further develop the framework by using a larger population and/or a cross-industry study. It could also be of interest to focus on only one service type and to make a thorough assessment of commitment in this specific service type. Furthermore, differences in commitment between gender, nationality, age etc. would be another interesting area for further research.

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Appendix 1

1.1 Paired sample T-test

Table 1. Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	S1:enjoy working together (c) - S2: enjoy working together (s)	1.819	1.929	.171	1.480	2.158	10.626	126	.000
Pair 2	S3: personal meaning (c)- S4: personal meaning (s)	2.846	2.443	.220	2.409	3.282	12.918	122	.000
Pair 3	S5: future partner (c) – S6: future partner (s)	.960	1.638	.147	.670	1.250	6.552	124	.000
Pair 4	S7: switching costs (c) – S8: switching costs (s)	-.475	1.410	.128	-.728	-.223	-3.725	121	.000
Pair 5	S11: necessity (c) - S12: necessity (s)	.816	1.981	.177	.465	1.167	4.605	124	.000
Pair 6	S17: no alternatives (c) – S18: no alternatives (s)	-.844	2.105	.186	-1.212	-.476	-4.534	127	.000
Pair 7	S9: guilt (c) – S 10: guilt (s)	1.906	2.025	.179	1.552	2.260	10.649	127	.000
Pair 8	S13: obligation (c) – S14: obligation (s)	.445	1.446	.128	.192	.698	3.484	127	.001
Pair 9	S 15: not right (c) – S:16 not right (s)	1.016	1.673	.149	.721	1.311	6.815	125	.000

Notes: S1-18 (Statement 1-18), (c) = Complex service, (s) = Simple service

Table 2. Paired Samples Test- one-dimensional construct

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	commitment (c) - commitment (s)	.96232	.91670	.08548	.79298	1.13166	11.257	114	.000

Notes: (c) = complex service, (s) simple service

Appendix 2

2.1 Regression analysis - relationship length and commitment (complex service)

Table 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.042 ^a	.002	-.007	.74281

a. Predictors: (Constant), 2. Relationship length- complex

Table 4. ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.111	1	.111	.201	.655 ^a
	Residual	64.005	116	.552		
	Total	64.116	117			

a. Predictors: (Constant), 2. Relationship length-complex

b. Dependent Variable: commitment

Table 5. Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		95.0% Confidence Interval for B		
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	3.789	.126		30.117	.000	3.540	4.038
	2. Relationship length	.003	.007	.042	.448	.655	-.010	.017

a. Dependent Variable: commitment

2.2 Regression analysis - Relationship length and commitment (simple)

Table 6. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.020 ^a	.000	-.008	.79173

a. Predictors: (Constant), 3. Relationship length-simple

Table 7. ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.028	1	.028	.045	.832 ^a
	Residual	70.833	113	.627		
	Total	70.861	114			

a. Predictors: (Constant), 3. Relationship length-simple

b. Dependent Variable: commitment

Table 7. Coefficients^a

Model		Unstandardized		Standardized		95.0% Confidence Interval		
		Coefficients		Coefficients		for B		
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	2.898	.136		21.275	.000	2.628	3.168
	3. Relationship length-simple	-.002	.007	-.020	-.213	.832	-.016	.013

a. Dependent Variable: commitment

Appendix 3

Table 8. Measurement items

Scale	Items
Affective commitment	We collaborate with our service provider because we enjoy working together Our service provider has a great deal of personal meaning to us We would be very happy to spend the rest of our life with our service provider
Continuance commitment	High costs to change service provider No worthwhile alternatives Right now, staying with our service provider is a matter of necessity as much as a desire
Normative commitment	We would not end the collaboration with our service provider right now because we have a sense of obligation towards the service provider Even if it were to our advantage, we do not feel it would be right to leave our service provider right now We would feel guilty if we ended the collaboration with our service provider right now