

## Customer Engagement into Value Creation: Determining Factors and Relations with Loyalty

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*The topicality of customer engagement into value creation as a marketing research object has especially grown in the context of current value co-creation studies. The current exploration shows that most works on the topic of customer engagement into value creation have been performed in the case of services. Their analysis reveals that up till now no complex research has been done that would analyse reasons for engagement into value creation of customers of services and all possible intermediate variables of relations between customer engagement into value creation and loyalty. The aim of this article is to substantiate the integrated approach towards customer engagement into value creation identifying its determining factors and relations with loyalty in the case of health care services. The compiled theoretical framework reflects the integrated approach towards service customer engagement into value creation and encompasses two groups of relations between the research constructs. The results of the empirical research show that patients' engagement into value creation is strongly influenced by communication of a clinic's doctors, and the other three factors have an average influence. It has been revealed that the influence of patients' engagement into value creation on attitude loyalty is stronger not in the case of direct impact of patients' engagement into value creation on loyalty but through intermediate variables. This is based on the research results, which confirm the influence of patients' engagement into value creation on their satisfaction, trust, and relationship strength of a clinic's doctors. All the mentioned variables influence patients' attitude loyalty, and the strongest influence is identified in the case of trust. The influence of patient's engagement into value creation on behaviour loyalty has not been identified.*

**Keywords:** *Customer Engagement, Value Creation, Co-Creation, Customer Loyalty, Health Care Services.*

### Introduction

Customer engagement into value creation is useful for companies not only because it helps to better understand and satisfy customer needs, but also promotes bigger customer loyalty (Selden & MacMillan, 2006). (Malaviya & Spargo, 2002) have determined that when engaging in value creation customers are characterised with a higher level of satisfaction and trust in the company, they feel connected to it, and, according to Uncles, Dowling and Hammond (2003), this leads to a bigger loyalty to the company. These research results of (Malaviya & Spargo, 2002) have encouraged further analysis of relations between customer engagement into value creation and loyalty. (Auh *et al.*, 2007; Rajah, 2008; Grisseman & Stokburger-Sauer, 2012) have performed significant research in this area.

(Auh *et al.*, 2007), when researching the relation between customer engagement into value creation and customer loyalty, distinguished factors that motivate customers to engage in the value creation process in the case of financial services (company communication, customer competence, emotional commitment, correctness of communication processes) and determined that all of them stimulated customer engagement into value creation, which increased customer loyalty to the company.

(Rajah *et al.*, 2008), complementing the study of (Auh *et al.*, 2007), revealed that there were also other relations between customer engagement into value creation and loyalty: customers, who participated in the general value creation process, first of all, must feel satisfaction and trust in the company, and relations between the company and customers must be strong. Only in such a case they may become customers, who are loyal to the company.

The newest research of (Grisseman & Stokburger-Sauer, 2012) analyses relations between customer engagement into value creation and loyalty in the context of service provision. This work is unique in the sense that the authors researched customer satisfaction with the engagement into value creation as the moderator of relations of the level of customer engagement into value creation and customer satisfaction, loyalty and expenses.

Results of the performed research enable to state that some authors, like (Auh *et al.*, 2007), when analysing relations between customer engagement into value creation and loyalty in the case of provision of services, gave more attention to the analysis of antecedents of customer engagement into value creation, while other authors (Rajah *et al.*, 2008; Grisseman & Stokburger-Sauer, 2012) were more interested in the variables of relations of intermediate

customer engagement into value creation and loyalty. Based on the existing analysis of the relations between customer engagement into value creation and loyalty, it is possible to state the necessity of an integrated approach. An integrated approach, based on identification of factors determining customer engagement into value creation and intermediate variables of relations between customer engagement into value creation and loyalty in the context of service provision, is treated as a relevant and timely research topic about customer engagement into value creation. Considering this, the *scientific problem* analysed in the article is *defined by the following questions: which factors determine customer engagement into value creation in the context of service provision, which intermediate variables are expressed between customer engagement into value creation and loyalty, what relations exist between the analysed constructs?*

Theoretical and empirical substantiation of the relations structure that reveals the integrated approach, argues the novelty of the research presented in the article. This parameter is even more strengthened by the chosen context of the empirical research – the case of the provision of health care services. Results of the research performed until now represent the sector of financial or tourism services. Therefore, substantiation of the integrated approach towards customer engagement into value creation with the example of the provision of health care services would expand the limits of the research performed in the analysed area, and their results would reveal new possibilities for practical application. Suitability of the chosen context is also confirmed by the fact that health care services, according to Raipa and Petukiene, 2009; Bitner *et al.*, 1997), are characterized by a high degree of customer participation in service provision, which enables the general value creation process (Claycomb *et al.*, 2001).

*The aim of the article* is to substantiate the integrated approach towards customer engagement into value creation, identifying its determining factors and relations with loyalty in the case of health care services.

**Research method:** systemic and comparative analysis of scientific literature was applied when developing the theoretical analysis; empirical research was executed conducting a quantitative research method – a questionnaire survey; correlation and regression were performed in the empirical research.

### **Factors Determining Customer Engagement Into Value Creation and its Relations With Loyalty in the Context of the Provision of Services: a Theoretical Framework**

Considering the scientific problem of the article related with substantiation of the integrated approach towards customer engagement into value creation, first of all, a question is raised, which factors determine behaviour of customer engagement that creates value for the customer as well as for the company. Emphasizing the importance of motivation when engaging customers into value creation, (Rodie & Kleine, 2000; Lengnick-Hall *et al.*, 2000) distinguish customer consciousness, role clarity, abilities, and motivation as the main factors determining customer engagement into value creation. According to (Van Doorn

*et al.*, 2010; Ple *et al.*, 2010; Gambetti & Graffigna, 2010) customer engagement into value creation is determined not only by customer motivation, but also by actions of the company to engage customers. Therefore, authors divide factors determining customer engagement into value creation into two groups: customer factors and company factors. The group of company factors consists of brand characteristics, company reputation, company size, communication, development of customer abilities to be engaged, and motivation of their engagement. (Gambetti & Graffigna, 2010) distinguish a separate group of factors determining customer engagement into value creation, that contains mass media factors that are attributed to company factors in other studies. (Van Doorn *et al.*, 2010) additionally distinguish environment factors, seeking to emphasize their impact on customer engagement. But there is no unanimous opinion of researchers on the impact of other factors on customer engagement into value creation. The research of (Van Doorn *et al.*, 2010; Ple *et al.*, 2010) gives the most attention to the analysis of factors determining customer engagement into value creation. Whereas, when discussing the context of service provision, the factors distinguished in the model of (Auh *et al.*, 2007) are considered to be the best substantiated ones from a theoretical as well as empirical point of view. According to these authors the following factors influence the motivation of service customers to engage into the process of value creation: company communication, customer competence, emotional commitment of customers, correctness of communication processes (consistent, timely, open and fair communication processes). These factors encompass aspects related with the company as well as with customers, and the results of the research performed with the example of financial services confirm meaningfulness of their engagement. Moreover, there are no published research results in the sector of health care sector. For that reason when constructing the theoretical framework of the research presented in the article the factor groups suggested by (Auh *et al.*, 2007) will be used as a basis.

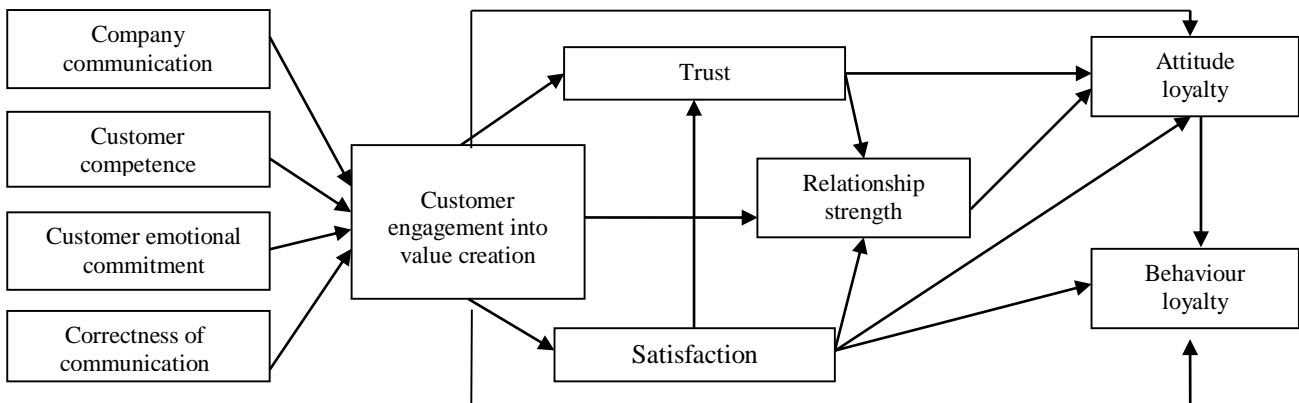
Another constituent that bases the necessity of an integrated approach towards customer engagement into value creation in the context of service provision is intermediate variables of the relation between customer engagement into value creation and loyalty and their interactions. The main results of the research performed in this area are reflected in the models of (Auh *et al.*, 2007; Rajah *et al.*, 2008; Grisseman & Stokburger-Sauer, 2012). It should be noted that when compiling the theoretical framework reflecting the integrated approach, the theoretical provisions summarized in the models of (Auh *et al.*, 2007; Rajah *et al.*, 2008) became its basis. Their choice was determined by the fact that (Auh *et al.*, 2007) distinguished the relations between customer engagement into value creation and attitude loyalty. These authors also confirmed, that although there was no relation between customer engagement into value creation and behaviour loyalty, but attitude loyalty influenced behaviour loyalty. (Rajah *et al.*, 2008) researched the following relations in a sufficiently complex way: the relations between customer engagement into value creation and customer satisfaction and customer trust; the relations of satisfaction and trust with the strength of the relationship; the relation between relationship strength with attitude loyalty, and the relations

of the latter with behaviour loyalty. Seeking for a complete substantiation of the relations between customer engagement into value creation and loyalty for basing the relations identified by (Rajah *et al.*, 2008) and other intermediate variable relations, the results of the research of the analysed constructs performed up to recently are used. Based on them, the following relations were additionally included into the theoretical framework: the relation between customer engagement into value creation and relationship strength, the relation between satisfaction and trust, the relation between satisfaction and attitude loyalty, the relation between trust and attitude loyalty, and the relation between satisfaction and behaviour loyalty. The substantiation of these relations is given in the chapter on research methodology. Whereas the moderating impact of customer satisfaction with the engagement into value creation, analysed by (Grisseemann & Stokburger-Sauer, 2012), was not examined in this article and is considered to be the research object of further research.

The theoretical framework given in Figure 1 depicts the integrated approach towards customer engagement into value creation in the context of service provision suggested in the article. The compiled theoretical framework reflects the integrated approach towards customer engagement into value creation and encompasses two groups of relations between the research constructs:

- The relations between company communication, customer competence, emotional commitment, correctness of communication processes and customer engagement into value creation;
- The relations between customer engagement into value creation, their satisfaction, trust and relationship strength and the relation of the latter constructs with customer loyalty.

Seeking to reach the aim formulated in the article, empirical substantiation of the named relations, as mentioned in the introduction, is performed with the example of health care services.



**Figure 1.** Factors determining customer engagement into value creation and its relations to loyalty in the context of service provision: a theoretical framework (compiled according to Auh *et al.*, 2007; Rajah *et al.*, 2008, and others)

**Research methodology**

During the empirical research the seek is to identify the relations reflected in the theoretical framework between the constructs of company communication, customer competence, emotional commitment, correctness of communication processes, customer engagement into value

creation, satisfaction, trust, relationship strength and loyalty in the context of the provision of health care services. A summary of the substantiation of the named research constructs and the relations between them is given in Table 1.

Table 1

**Substantiation of research constructs and relations between them**

Constructs and their relations	Substantiation
Construct of company communication	(Sharma & Patterson, 1999; Auh <i>et al.</i> , 2007).
Construct of customer competence	(Sharma & Patterson, 2000; Auh <i>et al.</i> , 2007).
Construct of emotional commitment	(Meyer & Allen, 1984; Auh <i>et al.</i> , 2007).
Construct of correctness of communication processes	(Smith <i>et al.</i> , 1999; Auh <i>et al.</i> , 2007).
Construct of customer engagement into value creation	(Bettencourt, 1997; Auh <i>et al.</i> , 2007; Rajah, <i>et al.</i> , 2008).
Construct of satisfaction	(Ranaweera & Prabhu, 2003); Rajah <i>et al.</i> , 2008).
Construct of trust	(Ranaweera & Prabhu, 2003; Morgan & Hunt's, 1994; Rajah <i>et al.</i> , 2008).
Construct of relationship strength	(Rajah <i>et al.</i> , 2008).
Construct of attitude loyalty	(Ganesh <i>et al.</i> , 2000; Rajah <i>et al.</i> , 2008; Auh <i>et al.</i> , 2007).
Construct of behaviour loyalty	(Ganesh <i>et al.</i> , 2000; Cronin, Brady & Hult, 2000; Rajah <i>et al.</i> , 2008; Auh <i>et al.</i> , 2007).
Relation between company communication, competence, commitment, correctness of communication processes and customer engagement into value creation	(Auh <i>et al.</i> , 2007).
Relations between customer engagement into value creation and satisfaction	(Rajah <i>et al.</i> , 2008; Dong <i>et al.</i> , 2008; Mascarenhas <i>et al.</i> , 2004; Oliver 2006).
Relations between customer engagement into value creation and trust	(Rajah <i>et al.</i> , 2008; Lundkvist & Yaklef, 2004; Malaviya & Spargo, 2002; Mascarenhas <i>et al.</i> , 2004).

Constructs and their relations	Substantiation
Relation between customer engagement into value creation and relationship strength	Berghman <i>et al.</i> , 2006; Vargo & Lusch, 2004; Payne, Storbacka & Frow, 2008; Claycomb & Martin, 2002).
Relation between trust and relationship strength	(Rajah <i>et al.</i> , 2008; Morgan & Hunt, 1994; Malaviya & Spargo, 2002; Mascarenhas <i>et al.</i> , 2004).
Relation between satisfaction and relationship strength	(Rajah <i>et al.</i> , 2008; Dong <i>et al.</i> , 2008; Fleming <i>et al.</i> , 2006; Claycomb & Martin, 2002; Storbacka <i>et al.</i> , 1994).
Relation between trust and attitude loyalty	(Hong & Cho, 2011; Chaudhuri & Holbrook, 2001; DeWitt <i>et al.</i> , 2008).
Relation between satisfaction and attitude loyalty	(Oliver, 2006; Bodet, 2008; Dong <i>et al.</i> , 2008).
Relation between satisfaction and trust	(Selnes, 1998; Kennedy <i>et al.</i> , 2001).
Relation between satisfaction and behaviour loyalty	(Garbarino & Johnson, 1999; Selnes, 1998; Oliver, 1980; Bloemer & Ruyter, 1998; Wallace <i>et al.</i> , 2004).
Relation between relationship strength and attitude loyalty	(Rajah <i>et al.</i> , 2008); Berghman <i>et al.</i> , 2006).
Relation between attitude loyalty and behaviour loyalty	(Rajah <i>et al.</i> , 2008; Zins, 2001; Egan, 2001; Myers, 1999; Dong <i>et al.</i> , 2008; Auh <i>et al.</i> , 2007).

Seeking to empirically substantiate the theoretical framework in the case of the provision of health care services, the following research tasks are formulated:

1. In the case of a clinic providing health care services, to determine the influence of doctors' communication, patients' competence, their emotional commitment, correctness of communication processes of the clinic's doctors on the patients' engagement into value creation.

2. To substantiate the existence of the relations between the engagement into value creation of the patients of a clinic providing health care services, their satisfaction, trust and strength of the relationships with the clinic's doctors and the influence of these constructs on loyalty.

Based on the analysis of the results of the research performed up to date, the following hypotheses are formulated:

H1. The communication of a clinic's doctors influences their patients' engagement into value creation.

H2. The patients' competence influences their engagement into value creation.

H3. The patients' emotional commitment to a clinic's doctors influences the patients' engagement into value creation.

H4. The correctness of the communication processes of a clinic's doctors influences their patients' engagement into value creation.

H5. The patients' engagement into value creation influences their satisfaction with the clinic.

H6. The patients' engagement into value creation influences their trust in the clinic.

H7. The patients' engagement into value creation influences the strength of the relationship between them and the clinic's doctors.

H8. The patients' satisfaction influences their trust in the clinic.

H9. The patients' trust in a clinic influences the strength of the relationship between them and the clinic's doctors.

H10. The patients' satisfaction with a clinic influences the strength of the relationship between them and the clinic's doctors.

H11. The patients' satisfaction with a clinic influences their attitude loyalty.

H12. The patients' satisfaction with a clinic influences their behaviour loyalty.

H13. The relationship strength between the patients' and a clinic's doctors influences the patients' attitude loyalty.

H14. The patients' satisfaction with a clinic influences their attitude loyalty.

H15. The patients' attitude loyalty influences their behaviour loyalty.

H16. The patients' engagement into value creation influences their attitude loyalty.

H17. The patients' engagement into value creation influences their behaviour loyalty.

Quantitative research was chosen for the empirical research, and primary data were collected using a survey method, non-random convenience sampling. A survey method – a questionnaire – was chosen for the creation of the research instrument. A 7-point Likert scale was used when compiling the questionnaire. Corresponding scales were applied to define all ten research constructs; the scales were based on results of previous scientific research. The reliability of the used instrument is assessed with the help of the Cronbach's alpha coefficient, which measures internal consistency of the questionnaire scale. The value of the Cronbach's alpha coefficient of the questionnaire compiled for this research is 0,968. This means that the questionnaire is reliable, and it can be used. During the research the questionnaires were distributed in private clinics providing health care services in the city of Kaunas. 250 questionnaires were distributed during the survey, 37 of them were not returned, 9 were damaged, so the research results are given, based on answers of 204 respondents. The research data are analysed with the help of the software SPSS 17,0 (Statistical Package for the Social Sciences). The correlation and regression analyses of the research constructs are performed for verifying the hypotheses. The Spearman's rank correlation coefficient is used in this research.

## Research Results

204 patients of private clinics providing health care services participated in the research, 60,29 % of them were women and 39,71 % were men. Most respondents were aged 26–35; the smallest number of respondents was aged 18–25. The bigger part of respondents (61,27 %) was employed; the smallest part (1,96 %) was students.

Having performed the empirical research of factors determining engagement into value creation of patients of private clinics providing health care services and its relations with loyalty, it became clear that all constructs of the theoretical framework were related by statistically significant medium-strength or very strong relations (see Table 2).

Table 2

**Results of correlation analysis**

Constructs between which correlation analysis is performed		Value of Spearman's coefficient	p
Communication of a clinic's doctors	Patients' engagement into value creation	0,669	0,000
Competence of patients	Patients' engagement into value creation	0,619	0,000
Patients' emotional commitment	Patients' engagement into value creation	0,611	0,000
Correctness of communication process of a clinic's doctors	Patients' engagement into value creation	0,666	0,000
Patients' engagement into value creation	Trust	0,691	0,000
Patients' engagement into value creation	Relationship strength	0,728	0,000
Patients' engagement into value creation	Satisfaction	0,805	0,000
Trust	Attitude loyalty	0,777	0,000
Trust	Relationship strength	0,854	0,000
Satisfaction	Trust	0,821	0,000
Satisfaction	Relationship strength	0,775	0,000
Satisfaction	Behaviour loyalty	<b>0,374</b>	<b>0,000</b>
Satisfaction	Attitude loyalty	0,770	0,000
Relationship strength	Attitude loyalty	0,771	0,000
Attitude loyalty	Behaviour loyalty	0,508	0,000
Patients' engagement into value creation	Attitude loyalty	0,685	0,000
Patients' engagement into value creation	Behaviour loyalty	<b>0,312</b>	<b>0,000</b>

Strong relations were identified between the constructs of patients' engagement into value creation and relationship strength, patients' engagement into value creation and satisfaction, satisfaction and attitude loyalty, satisfaction and relationship strength, satisfaction and trust as well as trust and attitude loyalty, and trust and relationship strength. It should be noted that a weak but statistically significant correlation was identified only between the constructs of satisfaction and behaviour loyalty as well as patients' engagement into value creation and behaviour loyalty.

**Factors Determining Patients' Engagement Into Value Creation**

These factors are identified based on the results of the regression analysis of the communication of a clinic's doctors, patients' competence, their emotional commitment, correctness of the communication processes of a clinic's doctors and patients' engagement into value creation (see Table 3).

Table 3

**Results of regression analysis**

Independent variable	Dependent variable	R <sup>2</sup>	Beta	p
Communication of a clinic's doctors	Patients' engagement into value creation	0,501	0,708	0,000
Patients' competence	Patients' engagement into value creation	0,416	0,645	0,000
Patients' emotional commitment	Patients' engagement into value creation	0,310	0,556	0,000
Correctness of communication processes of a clinic's doctors	Patients' engagement into value creation	0,349	0,590	0,000

When analysing the strength of influences of the communication of doctors of a clinic providing health care services, patients' competence, their emotional commitment and correctness of communication process of a clinic's doctors on the patients' engagement into value creation it was determined that all influences were statistically significant ( $p < 0,05$ ).

With regard to the determination coefficients calculated during the regression analysis ( $R^2$ ), it was determined that:

- The communication model of a clinic's doctors is suitable for determining influence ( $R^2 > 0,25$ ) and in average outlines 50 % of assessment dispersion of patients' engagement into value creation, therefore the *hypothesis H1 is confirmed*.
- The patients' competence model is suitable for determining influence ( $R^2 > 0,25$ ) and in average outlines 42 % of assessment dispersion of patients' engagement into value creation, therefore the *hypothesis H2 is confirmed*.
- The model of patients' emotional commitment is suitable for determining influence ( $R^2 > 0,25$ ) and in average outlines 31 % of assessment dispersion of patients'

engagement into value creation, therefore the *hypothesis H3 is confirmed*.

- The model of the correctness of communication processes of a clinic's doctors is suitable for determining influence ( $R^2 > 0,25$ ) and in average outlines 35 % of assessment dispersion of patients' engagement into value creation, therefore the *hypothesis H4 is confirmed*.

It may be seen from Table 3 that *patients' competence (0,645), emotional commitment (0,556) and correctness of doctors' communication processes (0,590) have an average influence on the patients' engagement into value creation, and the communication of a clinic's doctors (0,708) is a factor that has a strong influence*.

**Relations between Patients' Engagement Into Value Creation and Loyalty**

First of all, the results of the regression analysis of the patients' engagement into value creation and intermediate framework constructs are given (see Table 4).

Table 4

**Results of regression analysis**

Independent variable	Dependent variable	R <sup>2</sup>	Beta	p
Patients' engagement into value creation	Satisfaction	0,622	0,789	0,000
Patients' engagement into value creation	Trust	0,496	0,704	0,000
Patients' engagement into value creation	Relationship strength	0,568	0,754	0,000

When analysing the strength of the influence of the patients' engagement into value creation on patients' satisfaction, trust and the strength of the relationship between them and a clinic's doctors, it was determined that all influences were statistically significant ( $p < 0,05$ ).

With regard to the determination coefficients, calculated during the regression analysis ( $R^2$ ), it has been determined that the model of patients' engagement into value creation:

- Averagely outlines 62 % of assessment dispersion of satisfaction, therefore the *hypothesis H5 is confirmed*.
- Averagely outlines 49 % of assessment dispersion of trust, therefore the *hypothesis H6 is confirmed*.

- Averagely explains 56% of assessment dispersion of the strength of the relationship among patients and a clinic's doctors, therefore the *hypothesis H7 is confirmed*.

It may be seen from Table 4 that the *patients' engagement into value creation has a strong influence on the patients' satisfaction (0,789), trust (0,704) and relationship strength (0,754)*.

The results of the regression analysis of **patients' trust and relationship strength among them and a clinic's doctors and attitude loyalty** are given in Table 5.

Table 5

**Results of regression analysis**

Independent variable	Dependent variable	R <sup>2</sup>	Beta	p
Patients' trust	Relationship strength	0,674	0,821	0,000
Patients' trust	Attitude loyalty	0,716	0,846	0,000

When analysing the strength of the influence of patients' trust in a clinic on the strength of the relationship among them and the clinic's doctors and attitude loyalty, it has been determined that all influences are statistically significant ( $p < 0,05$ ). With regard to the determination coefficients calculated during the regression analysis ( $R^2$ ) (see Table 11), it has been determined that the model of patients' trust:

- Averagely defines 67 % of assessment dispersion of relationship strength, therefore the *hypothesis H9 is confirmed*.

- Averagely defines 71 % of assessment dispersion of trust, therefore the *hypothesis H11 is confirmed*.

It may be seen from Table 5 that the *patients' trust in a clinic has a strong influence on the relationship strength (0,821) as well as on patients' attitude loyalty (0,846)*.

The results of the regression analysis of **patients' satisfaction and their trust, the strength of relationships with the clinic's doctors, behaviour loyalty and attitude loyalty** are given in Table 6.

Table 6

**Results of regression analysis**

Independent variable	Dependent variable	R <sup>2</sup>	Beta	p
Patients' satisfaction	Patients' trust	0,714	0,845	0,000
Patients' satisfaction	Relationship strength	0,496	0,705	0,000
Patients' satisfaction	Behaviour loyalty	0,058	0,242	0,000
Patients' satisfaction	Attitude loyalty	0,593	0,770	0,000

With regard to the determination coefficients calculated during the regression analysis ( $R^2$ ), it has been determined that the model of patients' satisfaction:

- Averagely defines 71 % of assessment dispersion of patients' trust, therefore the *hypothesis H8 is confirmed*.
- Averagely defines 49 % of assessment dispersion of the strength of relationships between patients' and a clinic's doctors, therefore the *hypothesis H10 is confirmed*.
- Averagely explains 5 % of assessment dispersion of patients' behaviour loyalty, therefore the *hypothesis H12 is rejected*.

- Averagely defines 59 % of assessment dispersion of patients' attitude loyalty, therefore the *hypothesis H14 is confirmed*.

It may be seen from Table 6 that the *patients' satisfaction has a strong influence on the patients' trust (0,845), relationship strength (0,705) and attitude loyalty (0,770)*. The results of the regression analysis of **the strength of the relationship among patients' and a clinic's doctors and the patients' attitude loyalty as well as the patients' attitude loyalty and behaviour loyalty** are given in Table 7.

Table 7

**Results of regression analysis**

Independent variable	Dependent variable	R <sup>2</sup>	Beta	p
Relationship strength	Attitude loyalty	0,593	0,770	0,000
Attitude loyalty	Behaviour loyalty	0,182	0,427	0,000

With regard to the determination coefficients calculated during the regression analysis ( $R^2$ ), it has been determined that:

- The model of the strength of the relationship among patients and a clinic’s doctors is suitable for determining influence ( $R^2 > 0,25$ ) and averagely describes 59 % of assessment dispersion of patients’ attitude loyalty, therefore the *hypothesis H13 is confirmed*.
- The model of patients’ attitude loyalty is not suitable for determining influence ( $R^2 < 0,25$ ), therefore the *hypothesis H15 is rejected*.

It may be seen from Table 7 that the *strength of the relationships among patients’ and a clinic’s doctors has a strong influence on the patients’ attitude loyalty (0,770)*.

Having analysed the results of the regression analysis of patients’ engagement into value creation and intermediate framework constructs, the results that substantiate the direct

impact of patients’ engagement into value creation on loyalty are given.

The results of the regression analysis of the **patients’ engagement into value creation and attitude and behaviour loyalty** are given in Table 8.

With regard to the determination coefficients calculated during the regression analysis ( $R^2$ ), it has been determined that:

- The model of patients’ engagement into value creation and attitude loyalty is suitable for determining the influence ( $R^2 > 0,25$ ) and averagely describes 46 % of the assessment dispersion of patients’ attitude loyalty, therefore the *hypothesis H16 is confirmed*.
- The model of patients’ engagement into value creation and behaviour loyalty is not suitable for determining the influence ( $R^2 < 0,25$ ), therefore the *hypothesis H17 is rejected*.

Table 8

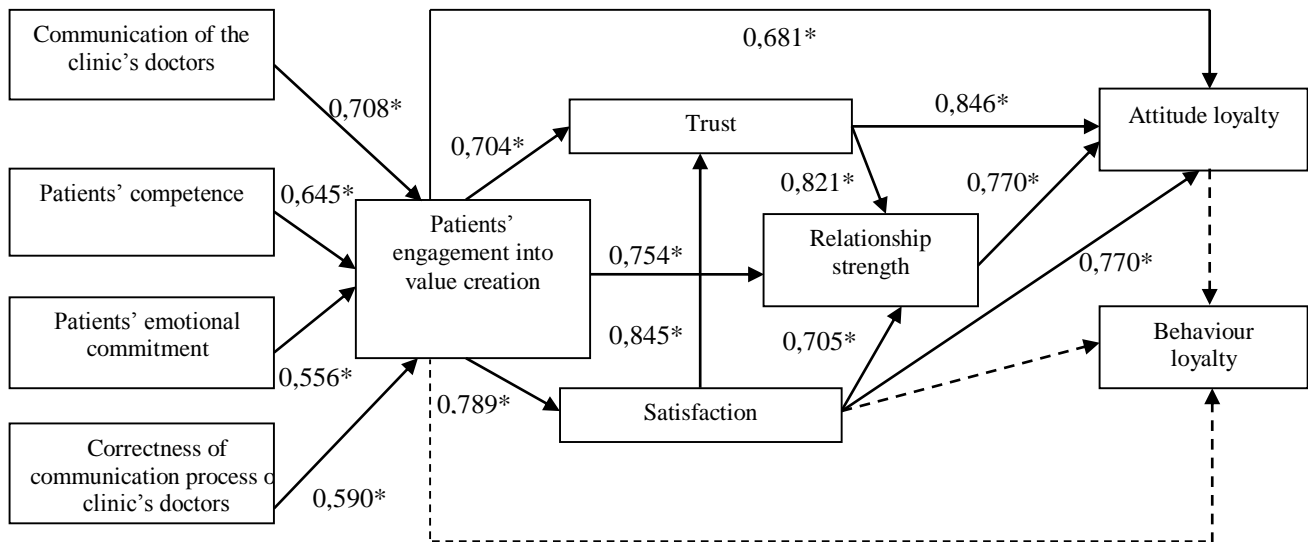
Results of regression analysis

Independent variable	Dependent variable	$R^2$	Beta	p
Patients’ engagement into value creation	Attitude loyalty	0,464	0,681	0,000
Patients’ engagement into value creation	Behaviour loyalty	0,058	0,241	0,001

It may be seen from Table 8 that *patients’ engagement into value creation has an average influence on the patients’ attitude loyalty (0.681)*.

Summarizing the results of the empirical research, it is stated that patients’ competence, their emotional commitment and the correctness of the communication processes of a clinic’s doctors have an average influence on the patients’ engagement into value creation, and the influence of the doctors’ communication on the analysed phenomenon is strong. When analysing the relations between patients’ engagement into value creation and

intermediate constructs of the theoretical framework it has been noticed that patients’ engagement into value creation has a strong influence on their satisfaction, trust in the clinic and strengthening of the relationship between them and the doctors. Analysis of the results, received during the empirical research, has also shown that patients’ satisfaction as well as their trust has a strong influence on the relationship strength as well as attitude loyalty. Also it has been identified that the relationship strength influences the patients’ attitude loyalty (see Figure 2).



\*Results of regression analysis,  $p = 0,000$ ,  $p < 0,5$

→ Presence of influence and direction are marked

- - - - - → Influence not identified

Figure 2. Factors determining customer engagement into value creation and its relations with loyalty in the case of health care services

It should be noted that during the empirical research the impact of patients’ satisfaction, attitude loyalty and engagement into value creation on patients’ behaviour loyalty

was not identified. This allows to state that three research hypotheses (H12, H15 and H17) were not confirmed.

## Conclusions

1. The theoretical framework, compiled on the basis of the research performed up till now, reflects the integrated approach towards customer engagement into value creation in the context of the provision of services and allows answering the problem questions raised in the article. This conclusion is based on three arguments: first of all, the theoretical framework encompasses company-level and customer-level factors that motivate customer engagement into value creation, such as company communication, customer competence, their emotional commitment and correctness of communication processes as well as relations between the latter and customer engagement; secondly, it substantiates theoretically the direct impact of engagement into value creation of service customers on attitude and behaviour loyalty; thirdly, it allows to identify intermediate variables of the relations between customer engagement into value creation and loyalty, such as trust, satisfaction and relationship strength, and reveals the structure of the relations between the analysed constructs.

2. The empirical substantiation of the compiled theoretical framework in the case of the provision of health care services has confirmed the existence of all relations identified on the theoretical level. Their analysis has revealed that there is a strong relation between patients' engagement into value creation and satisfaction, and there is a strong relation among the latter with attitude loyalty. Also it has been identified that there is a strong relation among patients' satisfaction and trust as well as relationship strength, and the latter constructs are closely related with attitude loyalty. This enables to state that in all cases the relations through intermediate constructs of the compiled framework are stronger than the direct relation between patients' engagement into value creation and attitude loyalty. It should be noted that patients' satisfaction as well as the engagement into value creation are linked by a statistically significant although weak relation with behaviour loyalty. The mentioned relations become especially relevant when discussing their causality, i.e. interpreting the results of the regression analysis.

3. The results of the regression analysis related to the implementation of the first task of the empirical research show that patients' engagement into value creation are highly influenced by the communication of a clinic's doctors. Whereas the other three factors (patients' competence, their emotional commitment and correctness of communication between the clinic's doctors and patients) have an average influence. Based on this, a conclusion is formulated, that seeking for a bigger patients' engagement into value creation, doctors should give most of their attention to their communication with their patients and the quality of information provided to them.

4. Having analysed the relations between customer engagement into value creation and loyalty in the case of health care services, it has been identified that patients' engagement into value creation influences the patients' attitude loyalty directly as well as through intermediate constructs. Whereas the influence of their engagement into value creation on behaviour loyalty has not been identified in all of the analysed cases. In practice, these results of the empirical research are significant because of the recommended

role of patients and the recognition of future intentions, but they do not present proof of their factual repetitive behaviour. From a scientific point of view, it should be emphasized that the received results have not confirmed the conclusions received by previous researchers (for example, (Auh et al., 2007) – although, to tell the truth, in other research contexts) on the influence of attitude loyalty on behaviour loyalty. It is thought that the relation between attitude and behaviour loyalty as well as between patients' engagement into value creation and behaviour loyalty requires a more thorough analysis and repeated research.

5. The results of the performed regression analysis have revealed that the influence of patients' engagement into value creation on attitude loyalty is stronger not in the case of a direct impact of patients' engagement into value creation on loyalty, but when acting through intermediate variables. This is substantiated by the research results, confirming the influence of patients' engagement into value creation on their satisfaction, trust in the clinic and the clinic doctors' relationship strength. All mentioned variables impact patients' attitude loyalty, and the strongest influence is identified in the case of trust. Based on this result, a conclusion is made that seeking for patients' loyalty patients' trust becomes a priority factor, and it is assured through honest and reliable doctors' activities.

## Limitations and Directions for Further Research

1. Based on the existing examination, the following four factors, motivating customers to engage into value creation, have been included into the prepared theoretical framework: company communication, customer competence, their emotional commitment and correctness of communication processes between the company and customers. The premise that more factors, that could be integrated into the theoretical framework, exist in the case of services provision is not rejected.

2. In order to substantiate the relations between customer engagement into value creation and loyalty in the context of service provision, intermediate variables and the relations between them argued by the results of previous scientific research were chosen. But further research in this area could provide new insights for basing the research constructs and the relations between them. One of the not researched constructs, that received the moderator role in the performed research, is customer satisfaction with the engagement into value creation.

3. The analysis of the results received during the empirical research has shown that patients' satisfaction, attitude loyalty and patients' engagement into value creation do not influence behaviour loyalty, therefore, it is thought to be purposeful to analyse the relations between the mentioned constructs in more detail identifying the causality of such expression.

4. It is thought to be useful to determine how respondents of different demographical characteristics are inclined to engage into value creation, and what influence that has on their loyalty.

5. It is recommended to perform a comparative research revealing the factors determining customer engagement into value creation and the relations with loyalty in the case of other services of high contact, for example, personal training sessions.



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