Study of Relationship Quality Dimensionality in the Parcel Delivery Services Market

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The article is organized in five parts. First part is introduction. In this part the research problem, the aim of this work and objectives are formulated. The aim of this work is as follows: after having analyzed an integrative model of determinants of key relationship marketing outcomes, to perform confirmatory factor analysis of the scale in order to assess if the same dimensions structure exists for parcel delivery services. The objectives of this work are: 1) to analyze T. Hennig-Thurau et al. (2002) model of determinants of key relationship outcomes, 2) to do survey of Lithuanian parcel delivery services consumers and to measure relationship quality using this instrument, 3) to perform confirmatory factor analysis in order to determine if dimensions structure of the model is the same for Lithuanian parcel delivery services. The problem solved in this paper is as follows: an integrative model of determinants of key relationship marketing outcomes was developed using a wide variety of services to expand the generalization therefore it is possible to examine context-specific relationships of a single service type. Moreover, it is not known if the same relationship quality dimensions exist in other than North-American cultural context such as Lithuanian culture.

In the second part of this article relationship quality model suggested by T. Hennig-Thurau et al. (2002) is analyzed and research hypotheses are formulated. Hypotheses are formulated in order to test relationships between dimensions and their discriminant validity.

In the third part of this work research methods are described. Confirmatory factor analysis process is analyzed.

In the fourth part of this article the results of study are analyzed. Various goodness of fit statistics such as degrees of freedom and chi-square test, RMSEA, NFI, NNFI, PNFI, CFI, IFI, RFI, standardized RMR, GFI, AGFI, PGFI, D², Fornell-Larcker test is analyzed in order to accept or reject hypotheses and to assess relationships between dimensions and discriminant validity of these dimensions. Nested models are compared with the original model and differences in goodness of fit statistics are examined. In the fifth part of this work final conclusions are formulated about model’s reliability and validity in parcel delivery services setting.

Keywords: relationship quality, confirmatory factor analysis, relationship marketing.

Introduction

Relationship marketing concept first was mentioned by L. Berry (1983) and now this concept is in vogue, maybe more than ever (T. Hennig-Thurau et al., 2002).
relationship quality dimensions.

In relation to marketing literature there are several methodologies and instruments to measure relationship quality. These models contributed very much to relationship marketing theory, but also every of these models have some limitations:

The relationship quality based student Loyalty model (T. Hennig-Thurau, F. Langer, U. Hansen, 2001). The main limitation of this model is that it is a service industry specific model. This model measures relationship quality of university services users. It’s impossible to use this model in the parcel delivery company.

An integrative model of determinants of key relationship marketing outcomes (T. Hennig-Thurau et al., 2002). The main limitations of this model are:

- Wide variety of services used does not allow testing context-specific relationships.
- Model was tested only in North American culture. It is not known if the same dimensions exist in other cultures.
- Cross sectional nature of data only allows for correlation, rather than causal, inferences to be made.

Relationship quality model (R. Brodie et al., 2003). This model is based more on the SERVQUAL dimensions model with some additional relationship quality dimensions. Moreover the amount of loyalty variance explained by these relationship quality dimensions is not reported. So it is not known how this scale is effective in comparison with SERQUAL scale.

Literature analysis revealed that the first model is more promising for assessment of relationship quality and future development, but there is a scientific problem:

**The research problem.** Does the structure of an integrative model of determinants of key relationship marketing outcomes (T. Hennig-Thurau et al. 2002) exist in parcel delivery services market?

**The aim of this work.** After having analyzed an integrative model of determinants of key relationship marketing outcomes, to perform confirmatory factor analysis of the scale in order to assess if the same dimensions structure exists for parcel delivery services.

**The objectives of this work are:** 1) To analyze T. Hennig-Thurau model of determinants of key relationship outcomes, 2) To do survey of Lithuanian parcel delivery services consumers and to measure relationship quality using this instrument, 3) To perform confirmatory factor analysis in order to determine if dimensions structure of the model is the same for Lithuanian parcel delivery services.

**The research object** is relationship quality of Lithuanian parcel delivery services customers.

**Research methods used:** web-based survey, exploratory factor analysis, confirmatory factor analysis.

**The analysis of an integrative model of the key relationship outcomes and hypotheses formulation**

The model is presented in Figure. In the model there are seven dimensions of relationship quality: confidence benefits, social benefits, special treatment benefits, satisfaction, commitment, word of mouth and loyalty.

**Figure.** An integrative model of determinants of key relationship outcomes (T. Hennig-Thurau et al., 2002).

Satisfaction in this model is dimension, which has strongest impact on customer loyalty and word of mouth. R. Rust et al. (1996) agrees with antecedent of loyalty.

R. Bennett et al. (2004) explains that the summary of satisfaction research is predominantly consumer oriented rather than taking place in business-to-business settings. Finally, the main three key issues are formulated regarding satisfaction and loyalty:

- Satisfaction and loyalty are related constructs.
- There are moderating factors for the relationship.
- The methodology influences outcome of the research.

R. Bennett et al. (2004) points out that that some studies concluded that both satisfaction and loyalty items are capturing the same construct. Furthermore, the authors explain that researchers achieving high levels of association and strong positive relationships should examine both convergent and discriminant validity amongst all constructs in a study, rather than assuming that constructs are distinct.

Based on these arguments the following hypotheses are formulated:

**Hypothesis H1SA/WM:** Satisfaction and word of mouth are related constructs in business-to-business parcel delivery services setting.

**Hypothesis H1SA/LO:** Satisfaction and loyalty are related constructs in a business-to-business parcel delivery services setting.

**Hypothesis H2SA/WM:** Satisfaction and word of mouth are discriminant constructs in business-to-business parcel delivery services setting.

**Hypothesis H2SA/LO:** Satisfaction and loyalty are discriminant constructs in a business-to-business parcel delivery services setting.

T. Hennig-Thurau et al. (2002) explains that commitment is seen as a focal relationship constructs preceding a customer’s relational behaviors. V. Liljander and T. Strandvik (1995) define commitment as “the parties’ intentions to act and their attitude towards interacting with each other”. R. Morgan and S. Hunt (1994) explain that loyalty, which is based on positive commitment, indicates a stronger relationship.
Based on these arguments the following hypotheses are formulated:

Hypothesis \( H_{1CO/LO} \): Commitment and word of mouth are related constructs in business-to-business parcel delivery services setting.

Hypothesis \( H_{1CO/LO} \): Commitment and loyalty are related constructs in business-to-business parcel delivery services setting.

Hypothesis \( H_{2CO/WM} \): Commitment and word of mouth are discriminant constructs in a business-to-business parcel delivery services setting.

Hypothesis \( H_{2CO/LO} \): Commitment and loyalty are discriminant constructs in a business-to-business parcel delivery services setting.

Hypothesis \( H_{2CO/WM} \): Commitment and word of mouth are related constructs in business-to-business parcel delivery services setting.

Hypothesis \( H_{2SB/CO} \): Social benefits and commitment are related constructs in business-to-business parcel delivery services setting.

Hypothesis \( H_{2SB/CO} \): Social benefits and commitment are discriminant constructs in business-to-business parcel delivery services setting.

Hypothesis \( H_{2SB/WM} \): Social benefits and word-of-mouth are related constructs in business-to-business parcel delivery services setting.

According to T. Hennig-Thurau et al. (2002) and K. Gwinner et al. (1998) Social benefits focus on relationship itself rather than on the outcome. The authors suggest that social benefits are positively related to commitment to the relationship. Based on this argument and other arguments provided by R. Bennett et al. (2004) the following hypotheses are formulated:

Hypothesis \( H_{1SB/CO} \): Social benefits and commitment are related constructs in business-to-business parcel delivery services setting.

Hypothesis \( H_{2SB/CO} \): Social benefits and commitment are discriminant constructs in business-to-business parcel delivery services setting.

According to T. Hennig-Thurau et al. (2002), trust and confidence benefits play a key role in the relationship quality and the relationship benefits approaches. In the model these two constructs are combined into one single construct. In order to determine convergent and discriminant validity of these constructs the following hypotheses are formulated:

Hypothesis \( H_{1CB/CO} \): Confidence benefits and commitment are related constructs in business-to-business parcel delivery services setting.

Hypothesis \( H_{2CB/CO} \): Confidence benefits and commitment are discriminant constructs in business-to-business parcel delivery services setting.

Hypothesis \( H_{1CB/LO} \): Confidence benefits and loyalty are related constructs in business-to-business parcel delivery services setting.

Hypothesis \( H_{2CB/LO} \): Confidence benefits and loyalty are discriminant constructs in business-to-business parcel delivery services setting.

Path loading connecting social benefits and loyalty (see Figure) shows that there exists relationship between constructs. The following hypotheses are formulated:

Hypothesis \( H_{1SB/WM} \): Social benefits and word of mouth are related constructs in business-to-business parcel delivery services setting.

Hypothesis \( H_{2SB/WM} \): Social benefits and word of mouth are discriminant constructs in business-to-business parcel delivery services setting.

From Figure it is not known if there exists the relationship between social benefits and confidence benefits. In order to test relationship between two constructs and discriminant validity the following hypotheses were formulated:

Hypothesis \( H_{1SB/CO} \): Social benefits and confidence benefits are related constructs in business-to-business parcel delivery services setting.

Hypothesis \( H_{2SB/CO} \): Social benefits and confidence benefits are discriminant constructs in business-to-business parcel delivery services setting.

Finally, in order to determine if loyalty and word-of-mouth are related constructs and discriminant constructs we will test the following hypotheses:

Hypothesis \( H_{1LO/WM} \): Loyalty and word-of-mouth are related constructs in business-to-business parcel delivery services setting.

Hypothesis \( H_{2LO/WM} \): Loyalty and word-of-mouth are discriminant constructs in business-to-business parcel delivery services setting.

Description of research methods used

The primary objective of CFA is to determine the ability of a predefined factor model to fit an observed set of data.

Some common uses of CFA are to:

- Establish the validity of a single factor model.
- Compare the ability of two different models to account for the same set of data.
- Test the significance of specific factor loadings.
- Test whether a set of factors are correlated or uncorrelated.
- Assess the convergent and discriminant validity of a set of measures.

Confirmatory factor analysis was performed using six basic steps (T. Brown, 2006):

1. **Definition of the factor model.** This involves selecting the number of factors, and defining the nature of the loadings between the factors and the measures. These loadings fixed at a zero, or at other constant values, allowed to vary freely, or be allowed to vary under specified constraints (such as being equal to another loading in the model). Factor model was defined based on the results of the research done by T. Hennig-Thurau et al. (2002). The factor structure and indicators are identical to an integrative model of determinants of key relationship marketing outcomes (see Figure).

2. **Collection of measurement.** Respondents were selected using the database of parcel delivery services customers. The population was business-to-business
parcel delivery services customers, who were active services users in the past 6 months and bought services for more than 200 Lt. A total sample of 200 responses was collected. According to Kline (2005), sample size can be considered as small, medium and large when N values are less than 100, between 100 and 200, and more than 200, accordingly. Web-based interactive survey was used to collect responses. All questions in the questionnaire were set as required in order to avoid missing values and maximum likelihood estimation problems described by A. Diamantopoulos and A. Siguaw (2005). Firstly, respondents were selected from database. Secondly, e-mails were sent asking customers to participate in survey. Thirdly, the responses collected to interned-based database. Finally, in the end of survey the responses were exported to SPSS to code and perform clearing.

3. Obtaining correlation matrix. From SPSS database data was imported to LISREL software. Then correlation matrix was generated.

4. Fit the model to the data. Estimates of factor loading were obtained using maximum likelihood estimation.

5. Evaluate model adequacy and fit. To evaluate the model fit various fit indicators suggested by A. Diamantopoulos and A. Siguaw (2005), E. Kelloway (1998) and B. Byrne (1998) were used. Namely, degrees of freedom and chi-square test, RMSEA, NFI, NNFI, PNFI, CFI, IFI, RFI, standardized RMR, GFI, AGFI, PGFI.

6. Comparison with other models. The discriminant validity between all dimensions was checked by constraining pairing to 1 and examining the change in model fit. Different models and their fit indicators were examined.

Analysis of results

Confirmatory factor analysis model structure, latent variables and their indicators are provided in Table 1. Confirmatory factor model consists of seven latent variables and seventeen indicators. Seven relationship quality dimensions are tested. Namely, special treatment benefits, social benefits, confidence benefits, commitment, loyalty and word-of-mouth.

<table>
<thead>
<tr>
<th>Question code</th>
<th>Latent variable code</th>
<th>Relationship quality dimension measured</th>
<th>Questionnaire item</th>
</tr>
</thead>
<tbody>
<tr>
<td>K11.3 ST</td>
<td>Special treatment benefits</td>
<td>Your company has higher priority than other clients.</td>
<td></td>
</tr>
<tr>
<td>K11.4 ST</td>
<td>Special treatment benefits</td>
<td>Your company receives better services than other clients.</td>
<td></td>
</tr>
<tr>
<td>K11.5 ST</td>
<td>Special treatment benefits</td>
<td>Your company receives special discounts or proposals which other companies don’t receive.</td>
<td></td>
</tr>
<tr>
<td>K12.1 SB</td>
<td>Social benefits</td>
<td>You are recognized by employees of parcel delivery company.</td>
<td></td>
</tr>
<tr>
<td>K12.2 SB</td>
<td>Social benefits</td>
<td>You enjoy certain social aspects of the relationship</td>
<td></td>
</tr>
<tr>
<td>K12.3 SB</td>
<td>Social benefits</td>
<td>You have good relationships with this company</td>
<td></td>
</tr>
<tr>
<td>K12.4 SB</td>
<td>Social benefits</td>
<td>You know the personnel of this company.</td>
<td></td>
</tr>
<tr>
<td>K13.2 CB</td>
<td>Confidence benefits</td>
<td>You know what to expect from this company</td>
<td></td>
</tr>
<tr>
<td>K13.3 CB</td>
<td>Confidence benefits</td>
<td>Personnel of this company are perfectly honest and truthful.</td>
<td></td>
</tr>
<tr>
<td>K13.4 CB</td>
<td>Confidence benefits</td>
<td>You can fully rely on this company personnel</td>
<td></td>
</tr>
<tr>
<td>K13.5 COM</td>
<td>Commitment</td>
<td>Relationships with this parcel delivery company are very important to your company.</td>
<td></td>
</tr>
<tr>
<td>K13.6 COM</td>
<td>Commitment</td>
<td>Relationships with this parcel delivery company deserve your maximum effort to be maintained.</td>
<td></td>
</tr>
<tr>
<td>K14.1 LO</td>
<td>Loyalty</td>
<td>Your company will use X company’s parcel delivery services in the future.</td>
<td></td>
</tr>
<tr>
<td>K15.1 WO</td>
<td>Word-of-mouth</td>
<td>Your company will say positive things about this parcel delivery company.</td>
<td></td>
</tr>
<tr>
<td>K15.2 WO</td>
<td>Word-of-mouth</td>
<td>If somebody asks you about services of this company, you will recommend using these services.</td>
<td></td>
</tr>
<tr>
<td>K15.3 WO</td>
<td>Word-of-mouth</td>
<td>If somebody told you that this company is bad, you would try to prove that it is not true.</td>
<td></td>
</tr>
<tr>
<td>K7.1 SA</td>
<td>Satisfaction</td>
<td>Overall, I’m satisfied with this company.</td>
<td></td>
</tr>
</tbody>
</table>

Model fit was evaluated using goodness of fit statistics calculated by LISREL (see Table 2). Firstly, model parameters are estimated in which all the parameters between latent variables are allowed to vary freely. Then model’s fit was assessed. In Table 2 are provided nearly all fit statistics calculated by LISREL, but A. Diamantopoulos and A. Siguaw (2005) explains that “Chi-square test used in conjunction with the RMSEA, ECVI, standardized RMR, GFI and CFI indices should be more than sufficient to reach an informal decision concerning the model’s overall fit”. Discriminant validity of constructs was performed using Fornell and Larcker (1981) test and D² test suggested by A. Diamantopoulos and A. Siguaw (2005). Composite reliability and average variance extracted are tested too to see if in literature suggested thresholds are exceeded (R. Bagozzi and Y. Yi, 1988).

In the first row of Table 2 and Table 3 are provided goodness of fit statistics of original illustrative model, which later will be compared to nested models testing formulated hypotheses. The goodness of fit index GFI is reasonably good 0.86 and almost reaches the threshold suggested in literature (A. Diamantopoulos and A. Siguaw, 2005). RMSEA is 0.09 and indicates mediocre fit (K. Jöreskog and D. Sörbom, 1997). Standardized root mean square residual is 0.054 and indicates acceptable fit. AGFI is below suggested threshold but PGFI is above. PGFI index takes into account model’s complexity.

Comparative fit index is very high (0.97) and exceeds...
between different constructs are provided (R). Hypotheses of fit changes will be examined.

Hypotheses will be compared to this original model and goodness of fit exceeds minimum thresholds and demonstrates high reliability and high amount of variance extracted.

Now in order to test formulated hypotheses nested models will be compared to this original model and goodness of fit changes will be examined.

In Table 3 standardized correlation coefficients between different constructs are provided (R). Hypotheses are sorted by correlation descending and will be tested in this order because dimensions with strong positive relationships are more likely to be not discriminant and therefore need to be tested first of all (R. Bennett et al., 2004; R. Kline, 2005).

**H1 CO/WM; H2 CO/WM** - The strongest relationship (0.8) exists between confidence benefits and commitment therefore hypothesis H1 CO/WM is accepted. To test if these dimensions are discriminant the relationship between these variables was constrained to 1.0 and then changes in model’s fit were examined. $D^2$ test, RMSEA, NNFI, CFI, IFI, IFI, standardized RMR, GFI and PGFI indicates loss in model’s fit (see Table 2 and Table 3). Standardized RMR is very large and exceeds suggested thresholds. Fornell-Larcker test has been passed. Confidence benefits and commitment are discriminant constructs therefore hypotheses H2 CO/WM are accepted.

### Table 2

<table>
<thead>
<tr>
<th>Hypothesis is tested</th>
<th>Degrees of freedom</th>
<th>Normal theory weighted Least Squares Chi-Square</th>
<th>Minimum function Chi-Square</th>
<th>$D^2$ test</th>
<th>RMSEA</th>
<th>90% confidence interval for RMSEA</th>
<th>NFI</th>
<th>NNFI</th>
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<tbody>
<tr>
<td>H1 CB/CO; H2 CB/CO</td>
<td>100</td>
<td>246.71</td>
<td>279.84</td>
<td>0.091</td>
<td>0.077; 0.11</td>
<td>0.95</td>
<td>0.96</td>
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<tr>
<td>H1 SB/CO; H2 SB/CO</td>
<td>101</td>
<td>265.71</td>
<td>313.91</td>
<td>0.096</td>
<td>0.082; 0.11</td>
<td>0.95</td>
<td>0.95</td>
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<td>H1 CB/CO; H2 CB/WM</td>
<td>101</td>
<td>269.39</td>
<td>333.42</td>
<td>0.097</td>
<td>0.083; 0.11</td>
<td>0.94</td>
<td>0.95</td>
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<tr>
<td>H1 SB/CO; H2 SB/WM</td>
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<td>249.89</td>
<td>287.08</td>
<td>0.092</td>
<td>0.077; 0.11</td>
<td>0.95</td>
<td>0.96</td>
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<tr>
<td>H1 CO/WM; H2 CO/WM</td>
<td>101</td>
<td>274.85</td>
<td>296.11</td>
<td>0.099</td>
<td>0.085; 0.11</td>
<td>0.95</td>
<td>0.96</td>
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<td>H1 SB/WM; H2 SB/WM</td>
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<td>252.96</td>
<td>288.29</td>
<td>0.092</td>
<td>0.078; 0.11</td>
<td>0.95</td>
<td>0.96</td>
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<td>H1 CB/WM; H2 CB/WM</td>
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<td>296.22</td>
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<td>0.078; 0.11</td>
<td>0.95</td>
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<td>H1 CO/WM; H2 CO/WM</td>
<td>101</td>
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<td>330.69</td>
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<tr>
<td>H1 SB/WM; H2 SB/WM</td>
<td>101</td>
<td>247.39</td>
<td>282.09</td>
<td>0.091</td>
<td>0.076; 0.11</td>
<td>0.95</td>
<td>0.96</td>
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<td>H1 CB/WM; H2 CB/WM</td>
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<td>282.13</td>
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<td>H1 CO/WM; H2 CO/WM</td>
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<td>279.84</td>
<td>-0.01</td>
<td>0.091</td>
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### Table 3

<table>
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<tr>
<th>Hypothesis is tested</th>
<th>PNFI</th>
<th>CFI</th>
<th>IFI</th>
<th>RFI</th>
<th>Standardized RMR</th>
<th>GFI</th>
<th>AGFI</th>
<th>PGFI</th>
<th>R</th>
<th>$R^2$</th>
<th>Average variance extracted</th>
<th>Fornell-Larcker test</th>
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</thead>
<tbody>
<tr>
<td>H1 SB/CO; H2 SB/CO</td>
<td>0.7</td>
<td>0.97</td>
<td>0.97</td>
<td>0.94</td>
<td>0.054</td>
<td>0.86</td>
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<td>0.56</td>
<td></td>
<td></td>
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<td>Passed</td>
</tr>
<tr>
<td>H1 SB/CO; H2 SB/WM</td>
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<td>0.96</td>
<td>0.95</td>
<td>0.93</td>
<td>0.27</td>
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<td>0.76</td>
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<tr>
<td>H1 SB/WM; H2 SB/WM</td>
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<td>0.95</td>
<td>0.93</td>
<td>0.35</td>
<td>0.84</td>
<td>0.76</td>
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<td>0.690</td>
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<td>0.97</td>
<td>0.94</td>
<td>0.13</td>
<td>0.85</td>
<td>0.78</td>
<td>0.56</td>
<td>0.790</td>
<td>0.624</td>
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<td>H1 CO/WM; H2 CO/WM</td>
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<td>0.97</td>
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<td>0.77</td>
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<td>Passed</td>
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<td>H1 CB/CO; H2 CB/WM</td>
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<td>0.97</td>
<td>0.97</td>
<td>0.94</td>
<td>0.13</td>
<td>0.85</td>
<td>0.78</td>
<td>0.56</td>
<td>0.710</td>
<td>0.504</td>
<td>0.699596</td>
<td>Passed</td>
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<tr>
<td>H1 CB/WM; H2 CB/WM</td>
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<td>0.97</td>
<td>0.97</td>
<td>0.93</td>
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<td>0.77</td>
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<td>H1 SB/WM; H2 SB/WM</td>
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<td>0.96</td>
<td>0.93</td>
<td>0.34</td>
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<td>H1 CB/CO; H2 CO/WM</td>
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<td>0.076</td>
<td>0.86</td>
<td>0.78</td>
<td>0.57</td>
<td>0.640</td>
<td>0.410</td>
<td>Passed</td>
<td>Passed</td>
</tr>
<tr>
<td>H1 CB/WM; H2 CB/WM</td>
<td>0.7</td>
<td>0.97</td>
<td>0.97</td>
<td>0.94</td>
<td>0.075</td>
<td>0.86</td>
<td>0.78</td>
<td>0.57</td>
<td>0.610</td>
<td>0.372</td>
<td>Passed</td>
<td>Passed</td>
</tr>
<tr>
<td>H1 CO/WM; H2 CO/WM</td>
<td>0.7</td>
<td>0.97</td>
<td>0.97</td>
<td>0.94</td>
<td>0.055</td>
<td>0.86</td>
<td>0.78</td>
<td>0.57</td>
<td>0.530</td>
<td>0.090</td>
<td>Passed</td>
<td>Passed</td>
</tr>
<tr>
<td>H1 CB/CO; H2 CB/WM</td>
<td>0.7</td>
<td>0.97</td>
<td>0.94</td>
<td>0.94</td>
<td>0.055</td>
<td>0.86</td>
<td>0.79</td>
<td>0.57</td>
<td>0.250</td>
<td>0.063</td>
<td>Passed</td>
<td>Passed</td>
</tr>
</tbody>
</table>

**H1 SB/CO; H2 SB/CO** - Social benefits and commitment are constructs which have a very strong correlation (0.69) therefore hypothesis H1 SB/CO is accepted (see Table 2).

From test $D^2$ we see that fit of this nested model is decreased. Other indicators suggest the same result (see Table 2 and Table 3). Standardized RMR is extremely large. Fornell-Larcker test has been passed. Hypotheses H2 SB/CO are accepted.

**H1 CO/WM; H2 CO/WM** - Commitment and word-of-mouth are positively related constructs, standardized correlation coefficient is high (0.79) therefore hypotheses H1 CO/WM are accepted. $D^2$ test does not indicate significant increase, but standardized RMR increased while CFI decreases from 97 to 96. This indicates some loss of fit. Fornell-Larcker test indicates too that these constructs are discriminant therefore hypotheses H2 SB/CO are accepted.
Correlation coefficient R shows (Table 3) that all other pairs of constructs hypothesized to be related constructs are related. Relationship strength varies from social benefits and commitment being the most related constructs (0.83) to satisfaction and loyalty being the least related constructs (0.25) therefore, we can conclude that $H_{1LOWM}, H_{1CBWM}, H_{1SBWM}, H_{1COLO}, H_{1COLO}, H_{1SBWM}, H_{1SAWO, H_{1CBWO, H_{2LOWM}, H_{2CBWM}, H_{2SBWM}, H_{2COLO}, H_{2COLO}, H_{2CBWO, H_{2SAWO, H_{2SAWO}}}$ are accepted. Goodness of fit statistics of all other nested models indicates loss of fit therefore $H_{2LOWM}, H_{2CBWM}, H_{2SBWM}, H_{2COLO}, H_{2COLO}, H_{2CBWO, H_{2SAWO, H_{2SAWO}} are accepted.

Conclusions

1. Analysis of an integrative model of determinants of key relationship marketing outcomes suggested by T. Hennig-Thurau et al. (2002) revealed that it is the most promising model because it integrates nearly all the most important relationship quality dimensions suggested by different authors in scientific literature. Also some model's limitations were identified. Analysis revealed that variety of services used does not allow identifying context specific relationships. Moreover, it is not known if the same dimensions exist in different culture or in different service type.

2. The results of confirmatory factor analysis revealed that there exist seven relationship quality dimensions in parcel delivery services setting: social benefits, confidence benefits, special treatment benefits, commitment, loyalty and word of mouth. While testing formulated hypotheses it is revealed that despite existence of constructs with strong positive relationship, all the constructs are discriminant in parcel delivery services setting. Discriminant validity of relationship quality dimensions was double-tested by chi-square and Fornell-Larcker test and both tests indicated that constructs are discriminant. Moreover, construct reliability and average variance extracted are tested and results have shown that all the constructs are reliable and with a high average variance extracted. Finally, we can conclude that relationship quality measurement scale suggested by T. Hennig-Thurau et al. (2002) is a valid and reliable scale suitable for relationship quality measurement in parcel delivery services.

References

Grönroos (2002), santykių marketingas apima tokius aspektus: marke
tingo tyrimas, kontaktu su vartotojais užmegzimą, santykių išlaik
lymą per pasitenkinimą ir kokybę, santykių išplėtimą ir vartotojo
dinimą ir netgi santykių nutraukimą.

T. Hennig-Thurai ir kt. (2002) aikškina, kad vienas iš pagrindin
gų santykių marketingo tikslų yra svarbų veiksnių, lemiančių lojalumą ir gyvąją žodį, identifikuojimas. R. Brodie ir kt. (2003) teigia, kad nepaprū
piniam konkurenciniu pranašumu, kuriami santykių marketingo priemo
nemis, yra sunkiai išmatuoti konkurso. Taigi įmonėms reikia instru
mentų, kurie leistų išmatuoti santykių kokybę tarp paslaugų teikėjo ir vartotojo. Paslaugų kokybės modeliai ir instrumentai turi rintų trūkumų, nes mažėja tam tikrą paslaugos eipodą ir yra statistikai (Palaima ir kt., 2006; Grönroos, 2001, turinti ir kt. 1995). Santykių marketingo para
digma reikalingai dinamos perspektyvos, kuri leistų matuoti paslaugų
ekartą su kitomis santykių kokybės dimensijomis ilgalaikėje pe
rspektyvoje.

Santykių marketingo mokslineje literatūroje yra keletas modelių ir instrumentų santykių kokybės matuoti. Šių modelių indeksis į santy
kių marketingo teoriją yra nemenkas, tačiau ir jie turi ribotumų ir trūkumų.

kių kokybė pagrįsto studentų lojalamumo modelio (An. the re
lationship quality based student Loyalty model) trūkumas tas, kad jis mažėjo santykių kokybė tik tarp universiteto ir jų paslaugų varto
ją studenčių.

minants of key relationship marketing outcomes) buvo testuojamas tariant įvairių tipų paslaugų vartotojus, siekiant sukti universaliai matavimo skale. Tačiau modeliu išmatuoti naudota paslaugų įvare
vėliau neleidžia patikrinti konkrečiam paslaugai tą būdingų ryšių tarp modelio kintamųjų. Be to, neaišku, ar ta pati dimensijų struktūra yra būdinga konkrečiam paslaugų tipui. Kitas modelio trūkumas tas, kad modelis testuotas aplaikiant tik Šiaurės Amerikos vartotojus, todel neaiškū, ar parastosios dimensijos egzistuoja kitose kultūrose.


Mokslinės literatūros analizė parodė, kad perspektyviausias to
liau vystyti yra T. Hennig-Thurai ir kt. (2002) modelis, kuris model
dėli santykių kokybės dimensijų struktūra yra būdinga įrengtų siuntų paslaugų rinkai?

delii, išstirė santykių kokybės dimensijų struktūra įrengtų siuntų paslaugų rinkoje.

\įtų siuntų paslaugų vartotojų empirinę tyrimą, 3) pritaikius patvirti
\įtų siuntų paslaugų vartotojų empirinių faktorių analizę, identifikuoti santykių kokybės dimensijų struktūrą įrengtų siuntų paslaugų rinkoje.

Tyrimo objektas yra įrengtų siuntų paslaugos teikėjo ir vartotojų
kokybė Lietuvos įrengtų siuntų paslaugų rinkoje.

Tyrimo metodai: internetinė įrengtų siuntų paslaugų vartotojų
apklausa, patvirtinančio faktorinė analizė.

Teorinis pagrindimas ir hipotezų formulavimas. T. Hennig-
Thurai ir kt. (2002) modelį sudaro septynis dimensijos: pasitikėjimo
nauda (angl. confidence benefits), socialinė nauda (angl. social bene
fits), ypatingo požiūrio į paslaugos vartotoją nauda (angl. special
treatment benefits), pasitikėjimas (angl. satisfaction), prisisi
rūsis (angl. commitment), ketinimas rekomenduoti (angl. word-of-mouth) ir lojalumas. Pasak T. Hennig-Thurai ir kt. (2002), vartotojų pasitik
ėjimas yra dimensija, turinti didžiausių poveikių vartotojų lojalamumui ir ketinimui rekomenduoti. R. Bennett ir kt. (2004) atliktą empirinių
įtyminę apžvalgą parodė, kad pasitikėjinimas ir lojalumas gali krai
šyti vienai faktoriui. Jie egz. tai įrengti konstruktų yra stiprus koreliaci
\įs ryšys, būtina tikrinti, ar šie konstruktai nepriklauso vienai faktori
\į. Vartotojų pasitikėjimas yra stiprus pagal stiprumą dimensiją, lemianti vartotojų lojalumą ir gyvąją žodį, patvirtinančio faktorinė analizė. Modelio

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