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Perceived Relationship Investment and Relationship Quality; The Mediating Role of Commitment Velocity

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Abstract

Relational components play important role in building strong relationships with consumers. Relationships between companies, brands or individuals have dynamic structure. Commitment velocity (CV) is a key relational mediator by adding a dynamic component to relationship. Also, CV effects the performance of relationship. This study has focused on relationship quality (RQ) as an important indicator of relationship performance. The study investigates the relationship between the perceived relationship investment (PRI) and relationship quality (RQ) with the mediating role of commitment velocity (CV) or the rate and direction of change in commitment. To demonstrate the relationship, this study developed a conceptual model and tested it by partial least square—structural equation modeling. A sample of 300 mobile communication customers is used to test the proposed model. The empirical investigation reveals that consumers' perception of the relationship investment drives their commitment and strengthen their relationship with their mobile communication service brands. The findings suggest that CV acts as a full mediator in the relationship between PRI and RQ. This study contributes to the theory and practice of relationship marketing in two ways. First, this study provides theoretical and empirical foundations for relationship marketing by dynamic component of commitment in to the model; therefore, the key research question: what is the role of CV in the creation of relationship quality? The findings reveal that CV play an important role because it has significant influence on RQ. Second, this study demonstrates the effect of PRI on RQ through CV. Relationship investment capabilities of mobile communication companies are very critical in this industry when industry turbulence is very high. Finally, some implications for managers and future research directions are highlighted.

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1. Introduction

The past decade, there has been an increasing attention on relational phenomena in marketing world. Previous relationship researches have focused on business-to-business marketing such as buyer-seller or business relationships. Fournier (1998) first examined relationship theory in consumers' research and showed its advantages for explaining the roles that brands play in consumers' lives.

In relationship marketing research, the constructs of relationship investment (PRI) and quality (RQ) have received a great deal of attention. Although the increase in relationship marketing research, there is a lack of consumer product and service domain. Beginning with the critical construct of perceived relationship investment, we take a preliminary step towards building a theory of relationship dynamics by explaining the construct of commitment velocity (CV), or the rate and direction of change in commitment.

The association between PRI, CV and RQ has never been investigated empirically. CV is a key relational mediator by adding a dynamic component to relationship. Also, CV effects the performance of relationship. This study has focused on RQ as an important indicator of relationship performance. The study investigates the relationship between the perceived relationship investment (PRI) and relationship quality (RQ) with the mediating role of commitment velocity (CV) or the rate and direction of change in commitment. This study uses a theoretical model from research on interpersonal relationships, the investment model, to explain RQ.

2. Theoretical Background and Hypotheses

The concept of our model is compatible with the research of Blau (1964) who shows that an investment of time, effort, and other irrecoverable resources in a relationship builds psychological bonds an expectation counteraction. We employ this assumption in a consumer context in the mobile communication services market. The output construct of RQ, consumers' counteraction of a service provider's investments in a relationship. Kang and Ridgway (1996) contend that consumers think obligated to give back the marketer's "investments" in a relationship. Relationship marketing programs develop to perceptions of relationship investment. Researchers showed that perceived attitudes can help to appraise relationships and develop subsequent behaviors (Dwyer et al.1987; Sahin et al.2013b).

Relationships between consumer and brands develop, mature and decline with repeated interactions or transactions (Dwyer et al.1987; Sahin and Kitapci, 2013a). Palmatier et al. (2013) offered the term "relationship velocity" to capture both the degree or rate and guidance or direction of variations in relational constructs (i.e., trust, commitment, norms) and thereby capture the changing aspect of those variables. In this study, we focus on CV or the degree and the direction of change in relational constructs such as commitment (Palmatier et al. 2006; Sahin et al. 2013).

The focus of our study on velocity as a dynamic or changing measure of commitment indicates our assumption that both the rate and the direction of change and helps to predict to future performance. Palmatier et al. (2013) defined the term of rate as an indicator of the magnitude of the change, and they defined the term of direction as an indicator of relationship movement whether it is growing or declining.

Dwyer et al. (1987) demonstrated that five general phases or stages of relationships as (1) awareness, (2) exploration, (3) expansion, (4) commitment, (5) dissolution. Each phase transition is directed by the repeated interactions or transactions between relationship parties. To determine the level and velocity of commitment offers an optional way to take the structure of developmental stages in a continuous manner.

The movement of relationship stage from one to another may result in positive or negative way. In our velocity perspective, it is a continuous indicator of relationship development. Relationship development process requires

previous interactions before moving from one level to other (Dwyer et al. 1987; Zehir et al. 2011). Communication efforts of relationship partner provide a basis of relationship and relational constructs (i.e. trust, commitment). Consumers who have a strong relationship with service provider represent a critical asset for service companies. Previous research offers that strong relationship customers are much more profitable (De Wulf et al.2001). Therefore, companies want have establish quality relationships with their customers.

PRI influences both consumers' CV (Palmatier et.al 2013), as well as RQ between the relationship partners (Morgan and Hunt, 1994). Further, consumer–brand CV could be one of the main factors that influence RQ (Sahin et al. 2011). Hence, this fact demonstrates that consumers' CV with a brand or product at least partially mediates the influence of consumers' PRI on RQ with a brand.

According to the above discussion our hypotheses are listed in below and shown in Fig.1:

H_1: PRI has a positive influence on RQ

H_2: PRI has a positive influence on CV

H_3: CV has a positive influence on RQ and is a mediating variable between PRI and RQ.

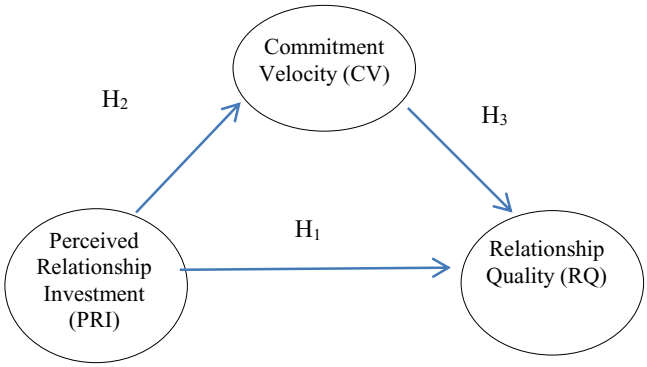

Fig.1. Hypothesized model

3. Methodology

3.1. Sample description

We tested our hypotheses by focusing on a single industry: The Turkish mobile communication services industry. Moreover, the analysis of a single industry is useful in the assessment consumer's CV, PRI and RQ will be more homogeneous with regard to the mobile communication services brands. The mean age of the participant was 27.85 years (SD= 7.27). Characteristics of the sample are shown in Table 1.

Table 1 Demographic characteristics of the sample (n = 300).

Variable		Count	%
Gender			
	Male	153	53
	Female	147	47
Marital status			
	Married	101	33
	Single	199	67
Education			
	University	220	85
	Graduate	80	15
Mobile communication services brand			
	Turkcell	150	50
	Vodafone	90	30
	Turk Telecom	60	20

3.2. Data Analysis

Partial least squares (PLS), a variance-based structural equation modelling (SEM) provides a proper methodology for data analysis because of model, sample and data characteristics. The research model uses reflective indicators and data are non-normal. Also sample size is relatively small (n = 300). These conditions are unsuitable for the application of other SEM techniques such as Lisrel or Amos (Hair et al. 2014). In this study, we used Smart PLS 3.0 (Ringe et al., 2005) to test the proposed theoretical model.

3.3. 3.3. Measures

All variables used in this study were measured with multi-item scales adapted from past research. This study uses five-point Likert scale (1 = strongly disagree, 5 = strongly agree). CV was measured with three items adopted from Palmatier, et al. (2013). PRI was assessed by adopting three items from De Wulf et al. (2001). Finally, for RQ variable, this study adapts De Wulf et al. (2001) three items. The internal consistency estimates of the measures were: .90, .91, .89, and .88.

4. Results

4.1. Analysis of the reliability and validity of the model

Prior to the hypothesis testing, an evaluation of the properties of the model's measure variables in two phases is instructive. These phases are: (1) Measurement model; and (2) Structural model.

4.2. Measurement model

In this study, we used reflective measurement model. To assess reflective measurement model in PLS-SEM, four criteria should be considered: factor loading, composite reliability (CR), average variance extracted (AVE) and discriminant validity (Hanseler, Ringle and Sinkovics, 2009). Results show that the measurement model meets all common requirements (Table 3). Individual item reliability was supported when an item has factor loading which is greater than 0.7 for its construct. Reflective indicators in this study meet this requirement (Table 3), except in the case of indicator CV2. This item was removed from this study.

Construct reliability assessment uses composite reliability (CR) and cronbach's alphas. All constructs had higher Cronbach's Alphas (Table 2) and CR (Table 3) than the recommended threshold of .70 (see Hair et al., 2014). The average variance extracted (AVE) gauges convergent validity. All reflective constructs attain convergent validity, because AVE figures exceeded the .50 thresholds and are very high (Table 3). Importantly, the discriminant validity was met according to the Fornell and Larcker (1981) criterion, as the square roots of AVE for all constructs were greater than the corresponding correlations with any other construct; thus, supporting validity. The results for the outer PLS model support the validity and reliability of the constructs. All indicator loadings are statistically significant, and mostly exceed the recommended threshold of .70 (see Hair et al., 2014); see Table 3.

Table 2 Scale Statistics: Mean, Standard Deviation, Measure Reliability and Correlation.

Construct	Number of Items	α	M	SD	Correlations 1	2	3
1. Perceived relationship investment (PRI)	3	0.88	3.09	0.98			
2.Commitment velocity (CV)	3	0.50	3.13	0.83	.662**		
3. Relationship quality (RQ)	3	0.91	5.24	0.99	.742**	.649**	.

**p< .05* **. Correlation is significant at the 0.01 level (2-tailed)
Notes: α= cronbach alpha, M = mean, SD = standard deviation

Table 3 Factor loadings of the constructs.

Construct/indicator	Loadings	Composite reliability (CR)	Average variance extracted (AVE)
PRI-(Perceived relationship investment)		.927	.795
PRI1	.919***		
PRI2	.894***		
PRI3	.861***		
CV (Commitment Velocity)	.	.907	.830
CV1	.913***		
CV3	.910***		
RQ (Relationship quality)		.943	.846
RQ1	.929***		
RQ2	.937***		
RQ3	.893***		

*** $P \leq 0.001$.

4.3. Structural model

The main principles to assess the structural model in PLS-SEM are the coefficient of determination (R squared) of the endogenous latent variables and the strength of the relationships between the variables (Chin, 1998). The R squared measures for all the dependent factors are above 0.1, critical level (Table 5). R squared for CV was .412, which is considered to be high. R squared for RQ was .579, which is described as high level (Hair et al., 2011). To investigate the significance of path coefficients, they were calculated by use of bootstrapping procedure with 5000 samples using the replacement method. The percentile bootstrap at a 95% confidence interval has the outcome in Fig.2 confirm the hypotheses of the proposed theoretical model in Fig. 1. Table 4 contains the estimated path coefficients (β) and t-values of each hypothesis. The structural model has satisfactory predictive relevance for RQ construct (Q2 = 0.481).

Other assessment of structural model consists of the model's competence to predict. The main measure of predictive relevance is Stone-Geisser Q squared statistic (Geisser, 1975; Stone, 1974) which can be measured by blindfolding procedures in PLS-SEM. Values for the Q squared measure illustrate the model's sufficient predictive ability (above 0 in all cases). If Q squared value for an endogenous latent variable was greater than zero, its explanatory constructs would provide predictive relevance (Hanseler et al., 2009). As Q squared values presented in Table 4, are higher than zero, the model has predictive relevance.

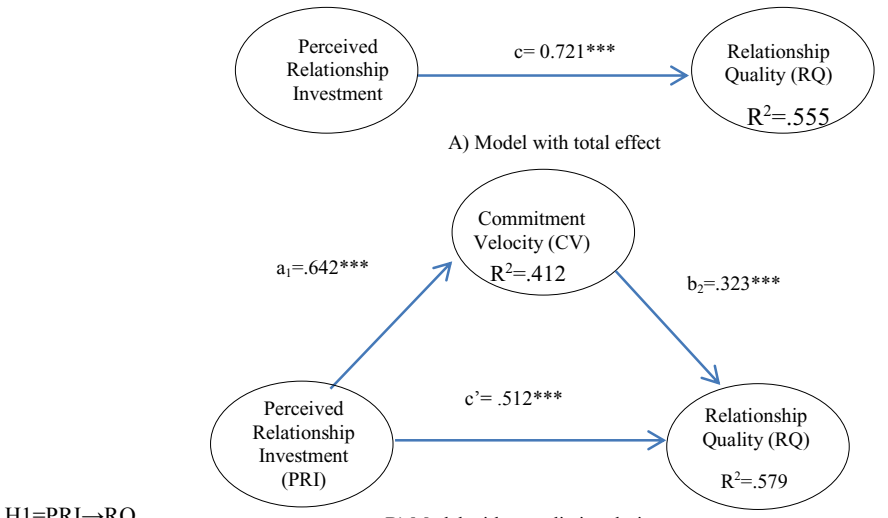

Fig.2. Structural Model: a mediation model

Table 4 Structural model results.

Hypothesis	β Path coefficients	T-statistics	Support
H1 (+) PRI→CV	0.642**	8.794	Yes
H2 (+) PRI→RQ	0.512***	6.226	Yes
H3 (+) CV→RQ	0.323***	3.362	Yes

R^2 (CV) = .412, R^2 (RQ) = .579, Q2 (CV) = .339, Q2 (RQ) = .481,
** *P < .01,* *** *P < .001.*

The effect size was computed in Table 5. The effect size is represented by f squared (f2), where values between .02 and .14 are small, between .15 and .34 are medium and .35 and above are large (Henseler et al., 2009).

Table 5 Effect size.

	R squared	f squared	Effect size
All constructs R^2 included	0.579		
CV excluded	0.555	0.06	Small
PRI excluded	0.334	0.58	Large

4.4. Mediation tests

A complementary analysis explored the mediating role of CV by comparing nested models that included direct effect paths (Hair et al. 2014). Tests on the mediation hypothesis (H3) use an application of the analytical approach that Hayes, Peacher, and Myers (2011) describe. Fig.1A shows the total effect (c) of PRI on RQ. Fig.1B expresses the total effect of RPI on RQ as the sum of the direct effect (c') and indirect effects (a1b1). The estimation of the later uses the product of the path coefficient for each of the paths in the meditational chain.

The bootstrapping (with 300 observations per subsample, 5,000 subsamples, and no sign changes) procedure was applied for testing of the mediation hypotheses (Peacher and Hayes, 2008). Fig.1A and Table 5 show, PRI has a significant total effect on RQ (c = 0.721; t = 10.916). When adding the mediator (Fig. 1B), PRI decreases its influence, but maintains a significant direct effect on RQ (H1: $c' = 0.512$; t = 6.226). Thus, this result supports H1, and, moreover, H2 and H3. This result reveal that indirect effect of PRI on RQ in the research model are significant. As a result, Table 4 shows that the CV (H3: a1b1) partially mediates the relationship between PRI and RQ.

Table 6 Significance Analysis of Path Coefficients without the Mediator (Ringle et al., 2012)

Hypotheses and pathways	β Path coefficients	T-statistics
H1 (+) PRI→RQ	.721***	10.916

* *P < .05,* ** *P < .01,* *** *P < .001.*

5. Discussion and Conclusion

The present study aims to examine customers' RQ through CV for branded services, by analyzing the effects of PRI and RQ. The approach here in is to place PRI at the beginning of the process, as a main antecedent of customers' RQ, while CV mediating roles between PRI and RQ.

The conceptual model of the present study is reliable and valid as a measurement model with high predictive power (R^2= .579) and validity ($Q^2 > 0$). The results confirmed the hypotheses proposed in the conceptual model (Fig. 1).

According to the structural model results (Fig. 2 and Table 4), the relationship between PRI and CV is the strongest one in the model (H_1; β= .642). This result is consistent with the similar studies. Past studies have shown that CV has a positive influence on RQ (Palmatier et al. 2013). However, in this empirical setting, the relationship between PRI and RQ is the second strongest one in the model (H_2; β= .512). In the analysis of the results, PRI and CV influenced RQ confirming the findings of Palmatier et al. (2013) and Şahin et al. (2012). In this study, the results

demonstrate that CV has a positive impact on RQ, but the relationship between CV and RQ is the lowest one in the model (H_3; β= .323).

The results of the model with the total effect (Fig.2A) demonstrate that greater the customer's perceived relationship investment, the greater customer's relationship quality show their service brand (R^2 = .721). With CV (Fig.2B) as a mediator, the direct effect of PRI on RQ drops. These results support Hypothesis H1. This result corroborates the fact that customer's perceived relationship investment continues to be a vital goal for service brands.

5.1. Theoretical contribution

According to the previous literature, the present study explores the impacts of PRI and RQ on via CV. This study examines simple mediation model with CV which is a key mediator variable, to analyze the relationships among the constructs. A few studies examine the relationships among PRI, RQ, and CV. Though, there is a lack of empirically address the inclusion of the CV as mediator variable with different variables.

The present study makes some major theoretical contributions to the literature. The main contribution of the present study is the demonstration of the mediating effect of CV in the relationship between PRI and RQ (H3). CV as a key mediator variable in these relationships has high predictive power (R^2 = .412) and validity (Q2 > 0). The results of the mediation analysis show that CV partially mediates the relationship between PRI and RQ (H3). The mediation analysis enables verification of the importance of CV in the success of building RQ.

5.2. Practical implications

Significant managerial implications emerge from this study. One of them is that focusing on perceived relationship investment (PRI) to create commitment velocity (CV). Previous research as accomplished by Palmatier et.al. (2013) indicated that bilateral communication and relationship investment capabilities have positive effects on commitment velocity (CV). Moreover, to have high relationship investment (PRI) levels can be a key predictor of CV and relationship quality (RQ). The results show that managers should value and develop perceived relationship investment (PRI) and to maximize relationship quality (RQ) with their consumers. While increasing PRI, companies should also focus on creating commitment velocity (CV). As a result of these efforts, companies would have higher CV and RQ for their brands, products or services.

According to the study findings, to build consumers' RQ, companies or brands should focus on developing their business processes, efforts and allocating their resources to maximize its PRI. In line with the study findings, Crosby et.al. (1990) indicated that companies should focus more on establishing long-term relationships with their customers by developing relationship building marketing programs and hiring sales personnel, marketing and sales managers with social abilities that facilitate establishing and maintaining long-term interpersonal relationships.

5.3. Limitations and future research

The study notes some limitations and suggestions for future studies. First, the technique for testing the model assumes linearity of relationships between exogenous and an endogenous latent variable. Second, this work follows a soft modeling approach, focusing more on prediction than causality (Roldán & Sánchez-Franco, 2012). Third, the findings limit the generalizability to other countries the current study, because the study was conducted in Turkey. An eastern Europe country Consumer characteristic may change across cultures and this needs to be taken into consideration. It would be useful for this study to be replicated in different countries to have greater reliability and external validity. Fourth, the size of the sample means that the generalizability of present findings needs further testing. Further research might need more resources to increase the sample size and consider other types of firms or industries. Future research should consider other industries. Sixth, the data is self-reported. Future research should adopt more objective measures such as customer record data from the companies.

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