

# UNPACKING THE INFLUENCE OF COMMODITIZATION ON ANTECEDENTS-TRUST RELATIONSHIP IN ONLINE SUBSCRIPTION SERVICES

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## ABSTRACT

This paper examines how commoditization as perceived by online subscribers affects the relationship between email communication exposure and trust. The study conducted a survey among customers of services in three different markets, each characterized by varying levels of service commoditization. To assess perceptions of commoditization (a second-order formative construct), the research utilized first-order constructs, including service/industry homogeneity, customer price sensitivity, and the costs associated with switching providers. This operationalisation was used to gauge the service commoditization in each market, aligning with the positions reported by the service providers. The results revealed that commoditization only weakly moderates the relationship between email communication and trust in two of the samples. By highlighting the moderation effect of commoditization perception, this research contributes to our understanding of how market conditions can influence the relationship between communication strategies, such as email communication, and the development of trust in online subscription services. These findings have important implications for service companies operating in increasingly commoditized markets.

**KEYWORDS:** *online subscription; customer perception of commoditization; service homogeneity; price sensitivity; switching costs; email communication; trust.*

## 1. INTRODUCTION

In the evolving environment of certain services, the unique features and competitive advantages that initially characterize a service tend to diminish over time as market competition intensifies (Kasper-Brau-

er & Enke, 2016). This gradual loss of uniqueness is mainly due to the commoditization of services, driven by better-informed consumers who have access to more transparent information, enabling swift imitation of competitors' offerings (Reimann et al., 2010). Such commoditization, where consumers start to see

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services as interchangeable, creates considerable difficulties for providers as it squeezes their profit margins and puts them in a cycle of competitive disadvantage (d'Aveni, 2010).

To date, much of the research has focused on the views of industry managers regarding commoditization (Reimann et al., 2010), while less attention has been paid to customer perceptions, especially in the area of relationship marketing. Research such as that by Beldona et al. (2015) and Koschate-Fischer et al. (2014) has suggested that customer perspectives could impact commoditization; however, these studies have not specifically addressed online subscription services or medium to low commoditization sectors. This study attempts to bridge these research gaps by addressing two main questions:

1. How applicable is the operationalization of commoditization perception, as proposed by Reimann et al. (2010), to online subscription services and sectors with low to medium levels of commoditization?
2. What effect does the perception of commoditization have on the relationship between the different antecedents and trust in a relationship marketing effectiveness model for online subscription services?

Our goal is to analyze how perceived commoditization (a second-order construct characterized by service homogeneity, price sensitivity, and switching costs) moderates the impact of email communication (measured by email communication exposure (ECE)), service firm reputation (measured by customer-based reputation of a service firm (CBR)), and brand credibility on trust within a relationship marketing effectiveness framework.

Our results confirm the relevance of the commoditization operationalization for online subscription services as developed by Reimann et al. (2010). The empirical assessment aligns with sales executives' views on commoditization pressures across the three markets studied.

Contrary to expectations, the moderating influence of commoditization is minimal or, at times, non-existent. The perception of commoditization mitigates the negative relationship between email communication exposure and trust in markets where high-quality email communication is already well established.

A significant insight for marketing professionals is that the perceived degree of commoditization has a limited impact on the effectiveness of digital marketing strategies in building trust and fostering trustworthy behaviour. The negative moderating effect of commoditization perception on the relationship between antecedents and trust is present only under

specific conditions, suggesting that caution is warranted before reducing investments in relationship marketing due to an increased perception of commoditization.

## 2. CONCEPTUAL FRAMEWORK

### 2.1. Structural multi-group model

We examine the moderating impact of commoditization perceptions within a relationship marketing effectiveness model for online subscription services. Specifically, we investigate its influence on the relationship between the model antecedents ECE, CBR, and credibility and trust as the focal construct of the model.

CBR and brand credibility effectively capture the perceived relationship benefits, customer experience with the vendor's investments in the relationship, and the perception of the vendor's expertise. ECE serves as an interactive antecedent and represents the service provider's investment in the customer relationship and the resulting benefits. Customer loyalty, a frequently used outcome in relationship marketing models, also serves our purpose (Watson et al., 2015).

We define ECE by using three distinct dimensions. Two of these dimensions—the cognitive and the behavioural—are based on the engagement operationalization proposed by Hollebeek et al. (2014), while the third dimension employs an inverse measure of email advertising intrusiveness as outlined by Edwards et al. (2013), Hsin Chang et al. (2013), and Morimoto & Chang (2006). For CBR, we employ Walsh and Beatty's (2007) operationalization. We operationalize brand credibility as a reflective construct consisting, previously used in subscription settings (Hyun Baek & Whitehill King, 2011; Sichtmann, 2007). Trust is operationalized following Gefen's (2000) approach. We select unidimensional reflective constructs, separate for attitudinal and separate for behavioural loyalty, as proposed by Watson et al. (2015). Our structural model is presented in Figure 1.

The quality of email information influences customer trust and uncertainty towards the vendor (Kim et al., 2008). Non-intrusive email marketing strengthens loyalty (Merisavo & Raulas, 2004), and email marketing increases brand loyalty (Merisavo & Raulas, 2004).

*H1 (H1a, H1c, H1b): Email communication exposure (ECE) has a positive impact on reputation (CBR), brand credibility, and customer trust.*

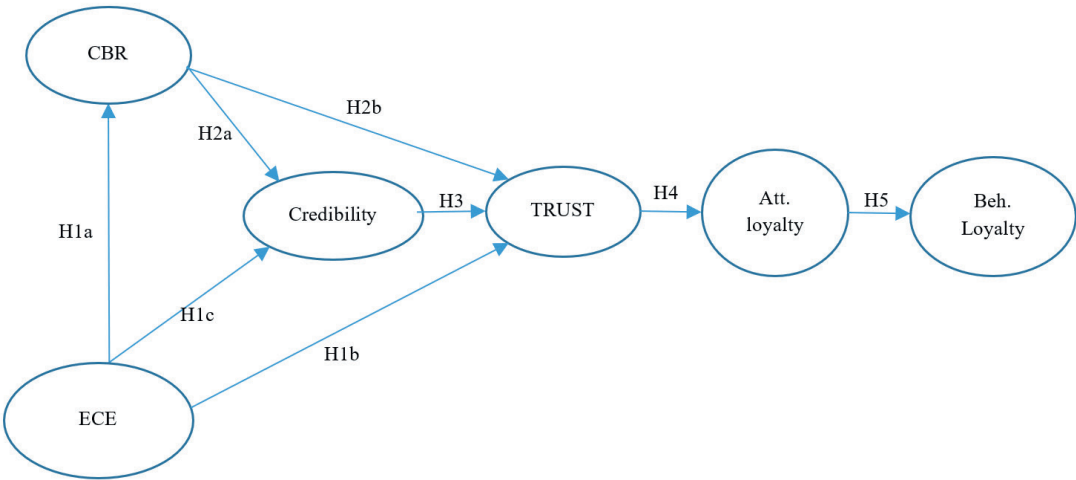


FIGURE 1: Conceptual structural model

Positive effects of CBR on trust have been observed in the context of online services (Nguyen et al., 2013; Yahia et al., 2018). The relationship between reputation, customer trust, and loyalty is also well-documented (Bartikowski & Walsh, 2011; Nguyen et al., 2013).

*H 2: CBR positively affects credibility and trust.*

According to signalling theory (Erdem & Swait, 2004), brand credibility is a key attribute that strengthens customer trust and fosters positive expectations for future service delivery.

*H 3: Credibility strengthens trust.*

Watson et al. (2015) found that loyalty is influenced by factors such as commitment, trust, customer satisfaction, and loyalty incentives. Trust acts as a mediator between loyalty and its antecedents, as argued by Morgan and Hunt (1994). Jaiswal and Niraj (2011) and Watson et al. (2015) showed that attitudinal loyalty influences behavioral loyalty.

*H 4 and 5: Trust has a positive effect on attitudinal customer loyalty, which, in turn, affects behavioral loyalty.*

2.2. Perception of commoditization by customers

The process of commoditization, which transforms a service into a commodity, is examined in the literature either from the customer’s perspective or from the manager’s viewpoint. Traditionally, a service or

product category is considered commoditized when its characteristics are so indistinguishable that customers perceive different brands and distribution channels as a homogenous service. From a customer’s viewpoint, increased commoditization implies a lower risk of choosing a disappointing service (Steiner, 1993).

From a manager’s standpoint, “industry commoditization” refers to the increased similarity among competitors’ offerings, the increased price sensitivity among customers and reduced switching costs for customers to switch between suppliers (Reimann et al., 2010, p. 189)

To assess the commoditization of a particular service, Reimann et al. (2010) identified the following dimensions: service homogeneity, price sensitivity, switching costs, and industry stability. The original development of the commoditization perception construct was based on the manager’s perspective (Reimann et al., 2010). Subsequently, Koschate-Fischer et al. (2014) and Beldona et al. (2015) adapted this framework to operationalize commoditization from the customer’s perspective, in line with Reimann et al.’s (2010) conceptualization but tailored to customer contexts.

In our study, legal online subscription services are the relevant context. We examine how customers perceive different commoditization dimensions in Croatia, Slovenia and Turkey, using the operationalizations from Reimann et al. (2010) and Beldona et al. (2015). Our results indicate that it is difficult for most customers to accurately assess industry stability, but the other three dimensions—service homogeneity, price sensitivity, and switching costs—are applicable

and relevant. Therefore, for our specific setting, we operationalize commoditization based on customers' perceptions of service homogeneity, price sensitivity, and switching costs.

### **Service homogeneity**

The characteristic of homogeneity in goods and services within a sector is often associated with commoditization (Pelham, 1997). When services are almost identical, they are considered substitutable in the market (Bakos, 1997; Pelham, 1997). The homogeneity of services usually results from intense competition and market saturation.

Brand equality is closely associated with uniformity. A higher degree of brand parity indicates a higher degree of commoditization within the provided service (Ramirez & Goldsmith, 2009). When consumers perceive minimal differences between brands, both brand parity and homogeneity are significantly increased (Iyer & Muncy, 2005). The dissemination of expertise contributes to the standardization of products and services in the marketplace, resulting in increased commoditization as the service evolves (Kasper-Brauer & Enke, 2016).

We interpret high service homogeneity as a scenario in which users of a particular service cannot distinguish between different brands, and the quality of services offered within a category is perceived to be the same. For content-intensive services such as online subscriptions, we expect that homogeneity will be greater when customers believe that all services within a category provide almost identical content.

### **Customers' price sensitivity**

Customers who are highly price-sensitive reduce consumption of a service when the price increases (or increase consumption/demand when the price decreases) (Goldsmith & Newell, 1997). Therefore, price sensitivity generally indicates how customers react to price hikes (Ramirez & Goldsmith, 2009).

According to the literature, price sensitive customers always look for the "best price for a standard product [and service] under the assumption that the products and services are equal in quality and function" (Reimann et al., 2010, p. 190).

We expect that in our setting customers who are more price-sensitive will invest additional effort to locate more affordable rates for a service within a specific category, and that they consider the financial savings from seeking a less expensive service provider as valuable. Moreover, we anticipate that for price-sensitive customers, the cost of the service carries more weight than the brand, and a hike in cost could lead to the client ceasing to use the service.

### **Switching costs**

Switching costs, as defined by Jackson (1985), refer to the economic, material, and psychological costs that customers bear when switching suppliers. According to Porter (2008), switching costs are expenses incurred by buyers when they switch to another vendor. Customers experience take-down switching costs when they lose what they have invested in the relationship with the vendor and the service, and set-up switching costs as opportunity costs associated with searching for an alternative provider (Weiss and Anderson, 1992). In our study, higher switching costs contribute to a lower level of service commoditization. Low switching costs implies that the sunk costs of leaving the existent vendor are minimal as it is easy to find and to adapt to a different service provider in the event of a price increase.

To operationalize service homogeneity, we utilized four items based on the method by Beldona et al. (2015): (i) there are no significant differences among services like X, (ii) the service standards for most services like X are the same, (iii) the quality and accuracy of most services like X are identical, and (iv) all services like X offer almost the same content/value.

The dimensions of price sensitivity and switching costs were also conceptualized with four items, as originally defined by Reimann et al. (2010). For price sensitivity: (i) I make an extra effort to find lower prices for services like X, (ii) I find it worthwhile to save money by finding a cheaper service, (iii) the cost of a service matters more to me than the brand, and (iv) I would cancel my subscription if the price of service X increased. For switching costs: (i) the cost of switching to a different service provider is low, (ii) switching to another provider is quick and easy, (iii) I would switch providers if the price of service X went up, and (iv) I could easily adapt to a service from a different vendor.

## **2.3. Moderation by Commoditization Perception**

Koschate-Fischer et al. (2014) state that product homogeneity has a negative moderating effect on the relationship between the share of private labels (the percentage of in-store spending on private label products) and store loyalty. For products that are highly commoditized, where the disparity in brand power among various services is minor, an elevated degree of commoditization exerts a detrimental moderating influence on relationships that boost loyalty. Furthermore, research has found that the effect of switching costs is insignificant in a retail environment (Koschate-Fischer et al., 2014).

In a study by Beldona et al. (2015), both hotel industry executives and hotel customers were sur-

veyed to understand their perceptions of commoditization. The results indicate that industry leaders view homogeneity as the main catalyst for commoditization, followed by industry stability, switching costs and customer price sensitivity. Conversely, subscribers attach the greatest importance to price sensitivity, while the impact homogeneity is negligible. The relevance of industry stability and switching costs were found to be less relevant for customers' perception of commoditization (Beldona et al., 2015).

In addition to the research by Reimann et al. (2010) that provides an operationalization of commoditization, Bronkhorst et al. (2019) examined how the dimensions of commoditization moderate the positive relationships between different forms of innovation in IT products and the commercial success of IT companies. The key insight from the research is that an increasing degree of commoditization in IT markets reduces the positive correlation between innovation and business results (Bronkhorst et al., 2019).

Like the study by Bronkhorst et al. (2019), our research also investigates the moderating influence of a secondary formative construct of perceived commoditization. We investigate the moderating impact on the links ECE - trust, ECE - CBR, ECE - credibility, CBR - credibility, and CBR - trust.

If a moderating effect exists, commoditization will negatively influence the impact of ECE on trust, CBR on trust, and credibility on trust.

If a moderating effect is present, commoditization will moderate negatively the impact of ECE on trust, CBR on trust, and credibility on trust.

### 3. DATA AND METHOD

An online survey was carried out across three markets using a seven-point Likert scale. The questionnaire was translated into the respective local languages and pre-tested to ensure clarity. Respondents were aware that their behaviour was being tracked, but their anonymity was preserved. We collected a sufficient number of valid responses: 1,962 from Croatia, 819 from Slovenia, and 780 from Turkey.

To mitigate common method bias, the marker variable test was employed (Lindell & Whitney, 2001). Subscribers' responses regarding their Facebook usage served as the unrelated variable. After adjusting for zero-order correlations using this proxy, all correlations remained significant, indicating that common method variance is unlikely to inflate the relationships within the model.

A comparison of the gender, age structure and subscription between the respondents and all recipients of the questionnaire was used to perform

non-response analysis. The gender ratios, subscription status (paid or freemium subscribers) and the age structure of the respondents in all three markets was comparable to the structure in vendor's CRM databases, which served as the source for sending the questionnaires to customers by email.

For the exploratory factor analysis and for testing the structural model, we randomly selected 488 respondents from the Croatian sample, 409 from the Slovenian sample, and 397 from the Turkish sample.

#### 3.1. Measurement model

To evaluate discriminant validity and internal consistency, we conducted an exploratory factor analysis (EFA). After examining correlations, loadings, item content relevance, and EFA results, we selected the most appropriate items that were relevant across all three markets. The standardized factor loadings were significant for all datasets, indicating good reliability. Cronbach's alpha exceeded 0.8 for all constructs, indicating robust internal consistency. The composite reliability (CR) values for ECE were between 0.73 and 0.76, while the values for the other constructs were above 0.82.

The discriminant validity of the constructs was evaluated using the Fornell-Larcker criterion, which involves comparing the square root of the average variance extracted (AVE) for each construct with the correlations between the constructs. The findings fully support the discriminant validity for the datasets from Croatia and Slovenia, as the square root of the AVE for each construct exceeds its shared variance with other constructs. However, in the Turkish dataset, the correlation between reputation, trust, and brand credibility is too high to fulfil this strict criterion for discriminant validity. We believe that this is due to the relatively short presence of the service in the Turkish market, which makes it difficult for customers to differentiate between the service quality aspect of reputation, the expertise aspect of brand credibility, and the integrity aspect of trust. This also explains the high correlation observed between these dimensions.

Measurement invariance was evaluated using a three-group unconstrained model, which demonstrated an acceptable fit ( $\chi^2 = 408$ ,  $df = 96$ ,  $p < 0.001$ , CFI = 0.96, RMSEA = 0.05), supporting configural invariance. Although full metric invariance was not achieved ( $\Delta\chi^2(10) = 25$ ,  $p = 0.007$ ), the minimal change in CFI (0.001) suggests that imposing constraints on factor loadings did not substantially impact the model fit (Cheung & Rensvold, 2002).

Internal-consistency parcelling was applied to the items for all constructs (Kishton & Widaman, 1994; Wu & Wen, 2011).

TABLE 1: Descriptive Statistics and Correlations of Constructs

Croatia	Mean	SD	CR	AVE	ECE	CBR	Trust	CRED	AL	BL
ECE	4.65	1.39	0.76	0.54	<b>0.74</b>					
CBR	5.38	0.96	0.85	0.66	0.61	<b>0.81</b>				
Trust	5.75	0.85	0.89	0.80	0.56	0.68	<b>0.89</b>			
CRED	5.76	0.88	0.89	0.67	0.52	0.74	0.62	<b>0.82</b>		
AL	5.72	0.90	0.93	0.73	0.50	0.69	0.72	0.61	<b>0.85</b>	
BL	4.89	1.42	0.86	0.67	0.30	0.45	0.45	0.41	0.68	<b>0.82</b>
Slovenia	Mean	SD	CR	AVE	ECE	CBR	Trust	CRED	AL	BL
ECE	4.55	1.47	0.71	0.47	<b>0.69</b>					
CBR	5.25	1.04	0.85	0.65	0.50	<b>0.81</b>				
Trust	5.88	0.89	0.72	0.57	0.48	0.68	<b>0.76</b>			
CRED	5.55	1.00	0.92	0.74	0.52	0.74	0.65	<b>0.86</b>		
AL	5.65	1.07	0.95	0.78	0.55	0.64	0.76	0.61	<b>0.88</b>	
BL	4.63	1.63	0.90	0.74	0.45	0.36	0.37	0.37	0.60	<b>0.86</b>
Turkey	Mean	SD	CR	AVE	ECE	CBR	Trust	CRED	AL	BL
ECE	5.04	1.34	0.73	0.50	<b>0.71</b>					
CBR	5.52	1.06	0.84	0.64	0.66	<b>0.80</b>				
Trust	5.68	1.05	0.88	0.79	0.74	0.87	<b>0.89</b>			
CRED	5.59	1.05	0.94	0.80	0.60	0.81	0.76	<b>0.89</b>		
AL	5.67	1.14	0.94	0.84	0.71	0.75	0.81	0.69	<b>0.92</b>	
BL	4.92	1.56	0.90	0.75	0.48	0.46	0.49	0.43	0.64	<b>0.87</b>

3.2. Assessment of the structural model

The hypotheses were tested using the structural equation modelling (SEM) in AMOS 27.0, as shown in Table 2. The fit for the unconstrained model for the three sample groups was satisfactory ( $\chi^2=550$ ,  $df=117$ ,  $p<0.001$ ,  $NFI=0.94$ ,  $CFI=0.95$ ,  $RMSEA=0.05$ ), indicating that the proposed causal multigroup structure is appropriate for all samples.

In each dataset, except the Turkish one, all proposed relationships were validated and were statistically significant. The influence of ECE on credibility was low in Croatia and Slovenia. However, in Turkey, where the brand had a lower market share and fewer years of experience with email communication, the impact was completely absent.

We set all structural path weights to be identical across markets to assess model invariance at the

structural level. The constrained model differed significantly from the unconstrained model ( $\Delta\chi^2(46)=452$ ,  $p<0.001$ ). At the individual path level, all effects of ECE on other constructs were invariant across all markets. Likewise, the impact of credibility on trust was invariant, although not significant in the Turkish dataset.

A statistically significant difference was found in the relationships between reputation and credibility and between reputation and trust, with the difference being most pronounced for among Turkish customers. The impact of trust on attitudinal loyalty was stronger in Turkey and Slovenia than in Croatia. Conversely, the impact of attitudinal loyalty on behavioral loyalty was greatest in Croatia, followed by Turkey and then Slovenia.

TABLE 2: Structural model results

Paths	Standardized $\beta$			Path invariance test	
	Croatia	Slovenia	Turkey	$\Delta\chi^2_{(2)}$	p
1a: ECE $\rightarrow$ CBR	0.59**	0.50**	0.67**	1.68	0.43
1b: ECE $\rightarrow$ CRED	0.14*	0.19**	0.08	2.60	0.27
1c: ECE $\rightarrow$ Trust	0.18**	0.24**	0.25**	2.48	0.29
2a: CBR $\rightarrow$ CRED	0.66**	0.65**	0.82**	6.83	0.03
2b: CBR $\rightarrow$ Trust	0.43**	0.42**	0.56**	9.76	*
3: CRED $\rightarrow$ Trust	0.25**	0.28**	0.21*	1.00	0.6
4: Trust $\rightarrow$ Attitudinal loyalty	0.77**	0.84**	0.84**	39.0	**
5: Att. Loy. $\rightarrow$ Behavioral loyalty	0.68**	0.60**	0.67**	6.60	*

\*\*p < 0.001; \*p < 0.05.

$\chi^2 = 550$ , df = 117, RMSEA = 0.05, NFI = 0.94. – unconstrained model

$\chi^2 = 166$ , df = 38, RMSEA = 0.08, NFI = 0.95 – CRO model

$\chi^2 = 197$ , df = 38, RMSEA = 0.09, NFI = 0.91 – SLO model

$\chi^2 = 159$ , df = 38, RMSEA = 0.09, NFI = 0.95 – TR model

3.3. Commoditization moderation -  
Measurement model

Principal axis extraction with Varimax rotation and Kaiser normalization was performed in the exploratory factor analysis for all commoditization perception items. The results presented in Table 3 show that all commoditization dimensions account for 76%, 76%, and 74% of the variance for Croatian, Slovenian, and Turkish sample, respectively.

There is high internal consistency and reliability for all commoditization dimensions (first-order constructs), high internal consistency and reliability exists as all CR values are above 0.8. All AVE values are above 0.6, indicating acceptable convergent validity (Table 3). Excellent internal consistency was observed, as evidenced by Cronbach's alphas above 0.8 for all dimensions and samples. The constructs showed discriminant validity (Table 3) as the square root of the AVE for each construct was greater than the correlation coefficients between the constructs (Fornell & Larcker, 1981).

The fit for the three-group measurement invariance of the unconstrained model was satisfactory ( $\chi^2 = 451$ , df = 102,  $p < 0.001$ , CFI = 0.96, RMSEA = 0.05). These findings indicate configurational invariance, showing that the underlying structure of the model is consistent across all three groups. Although full metric invariance was not achieved ( $\Delta\chi^2_{(20)} = 38$ ,  $p < 0.001$ ), the minimal change in CFI between the unconstrained and constrained models (0.002)

suggests that the application of factor loading constraints did not significantly affect the fit of the model (Cheung & Rensvold, 2002). This suggests that the measurement model is largely invariant across the three groups.

We conducted post hoc Tukey test comparisons. Significant differences were found for homogeneity between the Slovenian and Croatian samples ( $p = 0.01$ ), the Croatian and Turkish samples ( $p = 0.001$ ), and the Slovenian and Turkish samples ( $p < 0.001$ ). Similar results were observed for price sensitivity, with notable differences between the Croatian and Slovenian samples ( $p = 0.003$ ), the Croatian and Turkish samples ( $p < 0.001$ ), and the Slovenian and Turkish samples ( $p = 0.001$ ). Significant differences in switching costs were only found between the Croatian and Turkish samples ( $p < 0.001$ ) and between the Slovenian and Turkish samples ( $p < 0.001$ ). The differences in the mean values of these three constructs across the countries are explained in more detail below.

3.4. Moderation analyses

The commoditization items were grouped into three dimensions using the internal-consistency method (Kishton & Widaman, 1994; Wu & Wen, 2011). These dimensions were then consolidated into a single measure of commoditization for the moderation analysis. The regression analysis was performed using PROCESS 3.2 in SPSS and followed the guidelines set out by Hayes (2013, 2017) and Cohen et al. (2003).



TABLE 3: Descriptive Statistics and Construct Correlations

	CRO	Mean	SD	CR	AVE	A	B	C
A Homogeneity		3.50	1.25	0.93	0.76	<b>0.87</b>		
B Price Sens.		3.81	1.32	0.83	0.63	0.45	<b>0.79</b>	
C Switching costs		4.32	1.07	0.87	0.63	0.28	0.53	<b>0.79</b>
SLO								
A Homogeneity		3.64	1.30	0.94	0.79	<b>0.89</b>		
B Price Sens.		4.14	1.32	0.81	0.59	0.46	<b>0.77</b>	
C Switching costs		4.39	1.15	0.85	0.59	0.33	0.63	<b>0.77</b>
TR								
A Homogeneity		3.84	1.38	0.93	0.76	<b>0.87</b>		
B Price Sens.		4.48	1.51	0.83	0.62	0.46	<b>0.79</b>	
C Switching costs		4.64	1.23	0.84	0.56	0.37	0.62	<b>0.75</b>

ANOVA (one-way) was used to assess the statistical relevance of the differences between the three samples. Significant mean differences were found for homogeneity [F(2,1293)=26, p<0.001], price sensitivity [F(2,1293)=25, p<0.001], and switching costs [F(2,1293)=14, p<0.001].

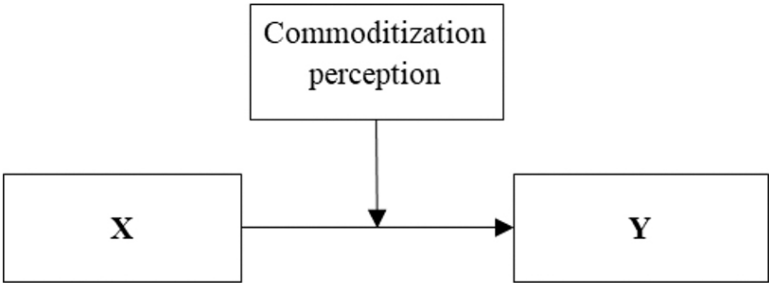


Figure 2: PROCESS Model 1. Adapted from Hayes (2017).

We analysed the direct moderating effects on the relationship between the antecedent variable X (ECE) and the focal construct Y (Trust), as well as the relationships between ECE (X) and the mediators Y (CBR and credibility), and between the mediators (X) and trust (Y). Hayes PROCESS SPSS Model 8 was used to conduct these analyses (Hayes, 2017).

When analyzing 15 potential direct moderation effects across three datasets, only the Slovenian sample revealed a significant moderation effect of the commoditization perception on the relationship

between credibility and trust ( $\beta = 0.12$ ,  $SE = 0.38$ ,  $t = 3.09$ ,  $p = 0.002$ , confidence interval [0.043, 0.19]). Interestingly, for Slovenian users, a higher perception of commoditization seems to increase the positive impact of credibility on trust. This finding is unexpected and contradicts existing theories, which are explained in more detail in the next chapter.

In addition, the study investigated the moderation effect of commoditization perception within models that include both moderation and mediation. Specifically, we examined: (i) the effect of ECE on CBR,



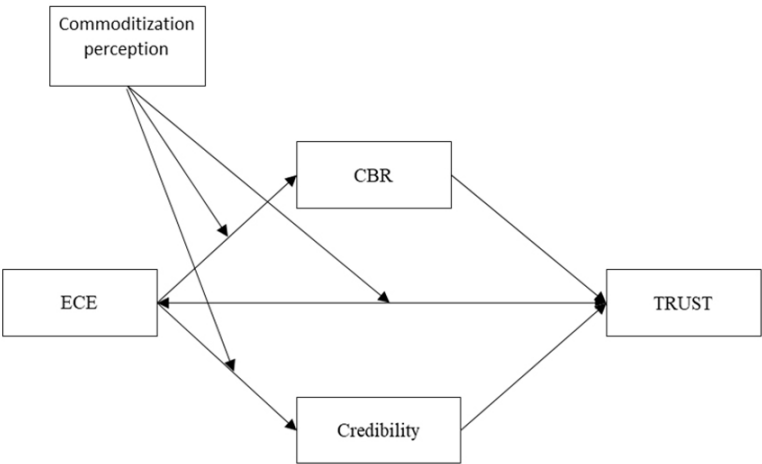


FIGURE 3: PROCESS Model 8a. Adapted from Hayes (2017).

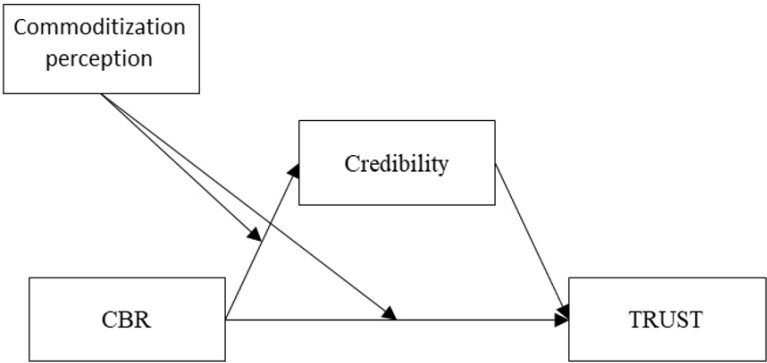


FIGURE 4: PROCESS Model 8b Adapted from Hayes (2017).

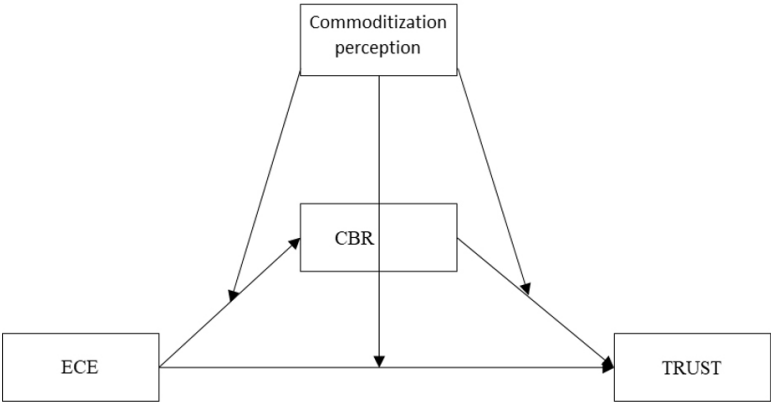


FIGURE 5: PROCESS Model 59c. Adapted from Hayes (2017)

trust, and credibility (as outlined in Hayes PROCESS Model 8, Figure 3); (ii) the influence of CBR on credibility and trust (described in Hayes PROCESS Model 8, Figure 4); and (iii) the impact of ECE on CBR and CBR's

effect on trust (detailed in Hayes PROCESS Model 59, Figure 5). The results of the analysis of moderation effects in these combined models are presented in Table 4.

TABLE 4: Analysis of commoditization perception (CP) moderation effect

Moderation effect		$\beta$	SE	t	p	LLCI	ULCI
Croatia							
1a	ECE x CP --> CBR	-0.03	0.31	-0.86	0.93	-0.63	0.58
1b	ECE x CP --> Credibility	-0.10	0.32	-0.30	0.76	-0.73	0.54
1c	ECE x CP --> Trust	-0.35	0.03	-1.34	0.18	-0.85	0.02
2a	CBR x CP --> Credibility	0.03	0.04	0.70	0.48	-0.05	0.10
2b	CBR x CP --> Trust	0.03	0.04	0.85	0.40	-0.04	0.10
3a	ECE x CP --> CBR	0.00	0.03	-0.09	0.93	-0.06	0.06
3b	CBR x CP --> Trust	0.08	0.04	1.96	0.05	0.00	0.17
3c	ECE x CP --> Trust	-0.07	0.03	-2.22	0.03	-0.13	-0.01
Slovenia							
1a	ECE x CP --> CBR	0.00	0.03	-0.13	0.90	-0.07	0.06
1b	ECE x CP --> Credibility	-0.01	0.04	-0.29	0.77	-0.08	0.06
1c	ECE x CP --> Trust	-0.05	0.03	-1.97	0.05	-0.10	0.00
2a	CBR x CP --> Credibility	0.12	0.04	3.09	0.00	0.04	0.19
2b	CBR x CP --> Trust	-0.01	0.04	-0.37	0.72	-0.08	0.06
3a	ECE x CP --> CBR	0.00	0.03	-0.13	0.90	-0.07	0.06
3b	CBR x CP --> Trust	0.05	0.04	1.26	0.21	-0.03	0.12
3c	ECE x CP --> Trust	-0.07	0.03	-2.33	0.02	-0.12	-0.01
Turkey							
1a	ECE x CP --> CBR	0.00	0.03	-0.10	0.92	-0.06	0.06
1b	ECE x CP --> Credibility	-0.01	0.04	-0.32	0.75	-0.08	0.06
1c	ECE x CP --> Trust	0.01	0.02	0.24	0.81	-0.04	0.05
2a	CBR x CP --> Credibility	0.00	0.03	-0.03	0.98	-0.05	0.05
2b	CBR x CP --> Trust	-0.04	0.03	-1.43	0.15	-0.09	0.01
3a	ECE x CP --> CBR	0.00	0.03	-0.10	0.92	-0.06	0.06
3b	CBR x CP --> Trust	-0.01	0.03	-0.26	0.79	-0.07	0.05
3c	ECE x CP --> Trust	0.01	0.03	0.24	0.81	-0.05	0.06

When analysing the mediation-moderation effects, only three showed statistical significance. In the Slovenian dataset, the perception of commoditization was found to positively influence the relationship between CBR and credibility, with CBR being the antecedent and credibility acting as the mediator. This result suggests that an increased perception of commoditization enhances the effect of CBR on credibility, a result that was not anticipated.

For both the Croatian and Slovenian datasets, the PROCESS model 59 found a notable negative moderation effect of commoditization perception, affecting the relationship between ECE and trust. In cases where the service is perceived as more commoditized by users in Slovenia and Croatia, the effectiveness of email communication in fostering trust in the online service decreases.

4. DISCUSSION, IMPLICATIONS AND  
LIMITATIONS

Our investigation addresses the nuanced role that commoditization perceptions play in shaping the dynamics of antecedent-trust relationships within the realm of online subscription services. By applying a framework for measuring commoditization, originally developed by Reimann et al. (2010), to the context of online subscriptions, we provide a new perspective for understanding customer attitudes in service environments characterized by varying degrees of commoditization.

In the Turkish market, the perception of commoditization for online subscription services is significantly higher than in other evaluated markets, with services in Croatia being seen as the least commoditized. These perceptions correlate with the findings of sales managers in the respective markets, suggesting that increased competition and a shorter market presence contribute to a higher perception of commoditization. An illustrative summary of these market dynamics, based on both the insights of sales managers and our research findings on commoditization levels in each country, can be found in Table 5.

Significant statistical differences were found between the samples from the three countries for each first-order construct. Further examination using the Tukey test revealed that the differences in perceived switching costs between the Croatian and Slovenian samples were not significant, which is likely due to the similar subscription terms and personalization features available in both markets.

Our research has highlighted a unique situation in Slovenia where the perception of commoditization positively influences the relationship between an antecedent and trust. Unexpectedly, in this context, an increased sense of commoditization strengthened the positive association between credibility and trust. This result could be related to Slovenia's unique mar-

ket characteristics and the consumers' awareness of the competitive landscape and commoditization. In Slovenia, the rivalry between the two leading service providers is seen by customers as a sign of increasing commoditization. However, this competition goes beyond the price war and includes improvements in service quality and scope, which in turn strengthens user confidence in both services. While we hypothesized a general negative moderating effect of commoditization on the antecedent-trust relationship, reflecting the findings of previous studies in highly commoditized settings, our results were more nuanced. The lack of strong commoditization effects in our study could be attributed to the moderate degree of commoditization of the investigated services, which differs from the conditions of previous studies.

We observed a negative moderation effect between email communication exposure (ECE) and trust, with ECE as the antecedent and customer-based reputation (CBR) as a mediator. This effect, which is influenced by the perceptions of commoditization, was not statistically significant in Turkey, which may be due to the fact that email communication is used less intensively there compared to the other two markets studied.

Our study makes a theoretical contribution by providing a basis for investigation how commoditization perception affects the attitudes and behaviours of online subscription service users. We have shown that medium to low commoditization environments, the negative moderation effect of commoditization perceptions on the relationship between antecedents and trust is not prevalent, but only occurs under certain conditions.

From a management perspective, applying the commoditization measure to services with medium to low levels of commoditization provides valuable insights. This approach helps marketing professionals tailor their strategies considering the level of commoditization levels and supports investors in as-

TABLE 5: Mean commoditization perception (CP) measure and the market position of the subscription service in each country

Country	CP measure (mean)	On the market before the survey (years)	Direct competitors (number)	Management estimation of market share (%)
CRO	3.88	9	1	80%
SLO	4.06	24	1	80%
TR	4.44	4	7	15%

sessing the potential and commoditization status of online services. While we found indications of commoditization's negative moderation on trust-building relationships, managers should approach this finding cautiously, especially in less commoditized sectors. They should make sure that such negative effects are truly due to commoditization and not to other factors.

The scope of our study was limited to a particular type of online subscription service for B2B legal information, which may not extend to other B2B contexts or B2C subscriptions, especially in industries such as media and gaming. In addition, our study did not reveal significant cultural business differences between Turkey and the culturally related countries of Slovenia and Croatia, although this might not apply to B2C subscriptions.

A negative moderation effect between email communication exposure (ECE) and trust was expected and observed, with ECE acting as an antecedent and customer-based reputation (CBR) as a mediator, along with the moderation effect of commoditization on these relationships. However, this effect did not reach statistical significance in the Turkish sample, which may be due to the comparatively lower intensity of email communication in Turkey compared to the other markets analysed.

The theoretical contribution of our study lies in establishing a foundation for researching the impact of perceptions of commoditization on the attitudes and behaviours of online subscription customers, confirming its measurement and theoretically exploring its role within relationship marketing effectiveness models. In contrast to highly commoditized environments, we have shown that for services with medium to low commoditization, negative moderation of commoditization perceptions on the relationship between antecedents and trust only occurs under certain conditions.

Extending the measure of commoditization to online services with medium and low levels of commoditization has management implications. This measure can help marketing managers to incorporate the level of commoditization into their strategic plans, and it can help investors to assess the level of commoditization and growth potential of an online service company.

As for the negative moderation of commoditization on trust-enhancing relationships, we found some evidence that such an effect could occur. Nonetheless, managers should proceed with caution before incorporating this into their marketing strategies, especially for services low levels of commoditization, and ensure that the negative moderation is indeed due to commoditization and not related to specific antecedents or trust perceptions.

However, this study has its limitations. It was conducted among clients of a specific type of online legal information subscription services provided by a group of companies, which limits its generalizability to other B2B and especially B2C subscription services. The use of a non-random sample is justified by the specific focus of this study on online subscription services. In our analysis, we also found no significant cultural differences in business practices between Turkey and the culturally similar countries of Slovenia and Croatia. This does not apply to B2C subscription services, especially in the media and gaming industries. Furthermore, although procedural steps were taken to mitigate common method bias (e.g., assuring respondents of the confidentiality of their responses), a test for marker variables was not conducted due to the absence of a relevant marker variable. Finally, there are potentially relevant constructs, such as commitment and engagement, which were not included to limit the questionnaire to an appropriate length and which could be explored in future studies.

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ISPITIVANJE UTJECAJA KOMODITIZACIJE NA PREDUVJET - POVJERENJE U ONLINE  
PRETPLATNIČKIM USLUGAMA

## SAŽETAK

Ovaj rad ispituje kako komoditizacija, kakvu percipiraju online pretplatnici, utječe na odnos između izloženosti komunikaciji putem e-pošte i povjerenja. Istraživanje je provedeno među korisnicima usluga na tri različita tržišta, od kojih je svako karakterizirano različitim razinama komoditizacije usluga. Za procjenu percepcije komoditizacije (formativne konstrukcije drugog reda), istraživanje je koristilo konstrukcije prvog reda, uključujući homogenost usluge/industrije, osjetljivost kupaca na cijene i troškove povezane s promjenom pružatelja usluga. Ova operativna definicija omogućila je procjenu komoditizacije usluga na svakom tržištu, u skladu s pozicijama koje su prijavili pružatelji usluga. Rezultati su pokazali da komoditizacija samo slabo moderira odnos između komunikacije putem e-pošte i povjerenja u dva od tri uzorka. Naglašavanjem učinka moderacije percepcije komoditizacije, ovo istraživanje doprinosi razumijevanju kako tržišni uvjeti mogu utjecati na odnos između komunikacijskih strategija, poput komunikacije putem e-pošte, i razvoja povjerenja u online pretplatničkim uslugama. Ovi nalazi imaju važne implikacije za tvrtke koje posluju na tržištima s rastućom razinom komoditizacije.

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**KLJUČNE RIJEČI:** *online pretplata; percepcija komoditizacije kupaca; homogenost usluge; osjetljivost na cijene; troškovi promjene pružatelja; komunikacija putem e-pošte; povjerenje.*



