

# **Diplomarbeit**

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"Trust among Peers on Peer-to-Peer Marketplaces as AirBnB: Influence of User Internal Factors and the Peer Environment"

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# RUNNING HEAD: TRUST AMONG PEERS ON PEER-TO-PEER MARKETPLACES

Trust among Peers on Peer-to-peer Marketplaces as AirBnB: Influence of User Internal Factors and the Peer Environment

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#### **Abstract**

This study investigates the influence of user-internal factors and similarity between peers on trust formation on peer-to-peer (p2p) marketplaces using AirBnB as an example. Results are obtained by an online simulation experiment with 355 participants. In line with previous research on this topic I predicted that the user-internal factors disposition to trust and former experience with AirBnB show a positive influence on trust. Furthermore, perceived similarity with the peer-provider of a holiday accommodation on AirBnB was predicted to enhance trust. With regard to the Theory of Reasoned Action by Ajzen and Fishbein (1975) I predicted that trust mediates the effect of its antecedents on its outcome, namely purchase intention. Results of this study confirm the positive effects of disposition to trust and perceived similarity as well as the mediation effect of trust on purchase intention. The results do not confirm the effect of experience with AirBnB on trust in peers.

Trust among Peers on Peer-to-Peer Marketplaces as AirBnB: Influence of User Internal Factors and the Peer Environment

The emergence of online peer-to-peer (p2p) marketplaces widens opportunities for consumers to share and purchase goods by a large extent. Many p2p online platforms allow their users to share or exchange their private goods as for example their cars (www.mitfahrgelegenheit.at), their services (www.taskrabbit.com) or even their houses (www.airbnb.com). However, the extension of possibilities for online commerce comes along with new risks and uncertainties for consumers.

In any business transaction trust between partners is an important component. On the internet the level of uncertainty and risk is increased, because exchange partners do not know each other, are physically separated and they might even be located in different countries and have different cultural backgrounds (Huang, Li, & Lin, 2007; Teo & Liu, 2007). Therefore the probability for miscommunication, misunderstandings or fraud is enhanced when dealing on online marketplaces compared to face to face interactions (Corbitt, Thanasankit, & Yi, 2003).

According to Luhmann (2000) one way to overcome the complexity and uncertainty in social interaction is trust. Trust reduces complexity of the social situation and facilitates the decision making process. Therefore trust widens one's range of opportunities. Building a trust relationship with the customer is a crucial factor for success for online businesses (Huang et al., 2007).

A wide range of studies have investigated different factors influencing trust in business to consumer online commerce platforms (Gefen, 2000; Huang et al., 2007; Jones & Leonard, 2008; Kim & Park, 2013; Teo & Liu, 2007). These authors found factors as reputation of the firm (Kim & Park, 2013), transaction safety (Kim & Park, 2013) or perceived web site quality (Jones & Leonard, 2008) to be relevant factors that enhance trust in online commerce.

The factors influencing trust in online commerce might however be different when the customer purchases from a peer rather than from a professional business. To examine the factors that are crucial in p2p online commerce this study uses AirBnB as an example for online p2p marketplaces. AirBnB is a holiday accommodation platform on which peers rent out their personal homes for short durations of time. AirBnB is an especially interesting example, because people booking their holiday accommodating on this platform will penetrate their peer's private space, their private apartments. Anybody who has ever spent a night in a bad, dirty or loud hotel room knows how far expectations and reality can be apart and how quickly a holiday might be ruined if one falls prey to fraud.

#### Trust Framework

Trust is important in situations with risk, uncertainty and interdependence between people (Mayer, Davis, & Schoorman, 1995). In online commerce and especially on p2p online marketplaces these factors are present; therefore trust is a crucial factor for the success of p2p online platforms.

There are many different definitions of trust, accounting for the different disciplines that have been discussing trust related issues, as sociology, political science, economics and psychology.

Lewis and colleagues point out that trust consists of emotional and cognitive dimensions. They state that trust constitutes the very basis of social order (Lewis & Weigert, 1985). The most cited definition of trust comes from Mayer and colleges: "Trust is the willingness of a truster to be vulnerable to the actions of a trustee based on the expectations that the trustee will perform a particular action" (Mayer et al., 1995).

This study is based on the trust typology developed by McKnight and colleagues (McKnight, Choudhury, & Kacmar, 2002). The framework of trust definitions is developed for and validated

in the context of e-commerce. The authors argue that trust is a multidimensional concept which cannot be fully described in one unidimensional definition. Therefore they develop a multifaceted typology which includes the concepts disposition to trust, institutional based trust, trusting beliefs, and trusting intentions (Figure 1).

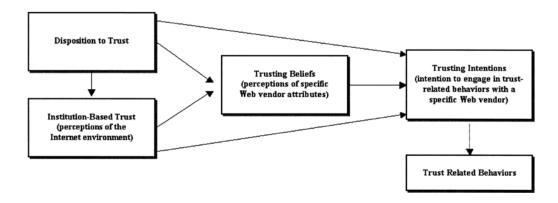


Figure 1 Trust Typology (McKnight et al., 2002)

This trust framework concentrates on initial trust which refers to trust in an unfamiliar interaction partner. Initial trust is formed before the truster has the chance to collect credible information about the trustee. In e-commerce, and even more so on p2p platforms, initial trust is crucial because both parties usually collect credible information about the peer only after trusting behavior (transaction) is carried out.

The proposed trust framework is based on the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975). The underlying idea is that trusting attitudes lead to trusting beliefs which in turn lead to trusting intentions. The framework includes two different trust attitudes. Disposition to trust and institution based trust. The former refers to "the extent to which a person displays a tendency to be willing to depend on others across a broad spectrum of situations and persons" (McKnight et al., 2002). Two aspects of disposition to trust can be differentiated. Faith in humanity refers to the belief that others are generally good natured and dependable. Trusting Stance refers to a general trusting behavior irrespective of the trustee's attributes (McKnight et

al., 2002). Disposition to trust is also defined by Mayer and colleagues (1995) as a stable personality trait that influences a person's tendency to trust.

Institutional based trust is "the belief that needed structural conditions are present to enhance the probability of achieving a successful outcome in an endeavor like e-commerce" (McKnight et al., 2002).

Trusting beliefs refer to the beliefs about the trustee's competence, benevolence and integrity in accordance to Mayer's definition of trust.

Trusting intentions refer to the truster's willingness or intention to depend on the trustee (McKnight et al., 2002). In the context of e-commerce it means that the truster is willing to engage in trust related behavior with a specific transaction partner (McKnight et al., 2002).

Based on the trust model of McKnight other authors investigated the influence of disposition to trust on trust in online commerce (Colquitt, Scott, & LePine, 2007; Gefen, 2000; Jones & Leonard, 2008; Teo & Liu, 2007). Colquitt and colleagues (2007) conducted a metaanalysis investigating the relationships between trust propensity, trust and trust behavior and showed that trust propensity has a positive effect on trust. Teo and Liu (2007) investigated consumers' trust in e-commerce in a cross-cultural setting and found among other factors support for the positive influence of disposition to trust on trust in all of the three countries they looked at (the United States, Singapore and China). However, Jones and Leonard (2008) did not find support for this hypothesis in their study on consumer to consumer e-commerce. They argue that the lack of support for the hypothesis is due to the special characteristics of consumer to consumer e-commerce. No further explanation why disposition to trust shall not play a role in this form of e-commerce is offered by the authors. Hence, the following hypothesis is proposed:

 $H_1$ : Disposition to trust has a positive effect on trust.

Hiraishi and colleagues investigated the relationship between general trust and the Big Five personality traits (Hiraishi, Yamagata, Shikishima, & Ando, 2008). They argue that general trust is a mental mechanism that people adapt in accordance to their internal environment, namely their personality. High general trust is a strategy with high payoffs for extroverted and agreeable people that profit most from forming new relationships. In line with their hypothesis their study showed that general trust correlates highly with extraversion and agreeableness.

Following these results it is possible that the predicted effect of disposition to trust on trust will be influenced by the participant's personality traits.

### Experience

Beside trust familiarity with the trustee is a second strategy to overcome perceptions of risk and uncertainty (Luhmann, 2000). Both of these strategies open up new opportunities for interaction with the trustee. While trust is formed based on the beliefs about the other party's competence, benevolence and integrity, familiarity refers to the understanding about his or her actions and is based on knowledge from previous interactions. Familiarity is therefore formed through experience. In the context of e-commerce experience reduces social complexity by understanding how the purchasing procedure with a particular web vendor functions.

Previous research has shown that the users' general experience with the internet enhances trust in e-commerce and leads to increased willingness to participate in such (Corbitt et al., 2003).

Gefen and colleagues studied the influence of experience with a particular web vendor on trust (Gefen, Karahanna, & Straub, 2003a, 2003b; Gefen, 2000). For their research they used amazon as example web vendor, because they argue experiences with amazon are mainly positive (Gefen, 2000). Their results showed that indeed familiarity fosters trust. However, in accordance with

Luhmann's theory the participant's disposition to trust showed to have a greater influence on trust than familiarity. It follows that:

**H<sub>2</sub>:** Experience has a positive effect on trust.

#### Trust and Similarity

The relationship between similarity and trust has been researched in the context of online peer recommendation systems. Previous research showed that high rapport, based on shared preferences, tastes, demographic background and lifestyles, leads to higher trust of the user in a peer recommender and through mediation indirectly to higher perceived influence from the peer (Smith, Menon, & Sivakumar, 2005). Other authors investigated the importance of interest similarity in automated recommendation systems in online social networks and found positive relationships between interest similarity and trust (Bhuiyan, 2010; Ziegler & Golbeck, 2007). Hence, I hypothesize that:

**H**<sub>3</sub>: Participants in the similar condition will show higher trusting beliefs than participants in the not-similar condition.

Furthermore this study will test whether there is an interaction effect between the user internal factors and similarity. The intention is that whether similarity with the peer is able to enhance trust depends on the participants characteristics. It would be conceivable that only participants with a high general disposition to trust are influenced by the similarity with the peer. Therefore the following hypothesis is postulated:

**H<sub>4</sub>:** There is an interaction effect between user internal factors and the similarity with the peer.

#### Trust as a Mediator

As proposed by McKnight and colleagues several studies investigated antecedents and consequences of trust within the theoretical framework of the TRA (Hsiao, Lin, Wang, Lu, & Yu,

2010; Huang et al., 2007; Kim & Park, 2013; Teo & Liu, 2007). According to the TRA trust mediates the relationship between antecedents which can be characteristics of the web vendor or characteristics of the truster, and trusting intentions. In line with the predictions of the TRA many authors confirmed a positive relationship between trust and trust performance (Hsiao et al., 2010; Huang et al., 2007; Kim & Park, 2013; Teo & Liu, 2007). For example, Kim and Park (2013) showed in their research on e-commerce firms which rely on the use of social network sites that trust positively influences purchase intention and the intention of Word-of-Mouth (telling others about the firm).

In this regard, the following hypothesis is proposed:

**H<sub>5</sub>:** Trust works as a mediator to enhance purchase-intentions.

### *The present study*

This study seeks to answer the question which factors influence trust in p2p marketplaces as AirBnB. This study differentiates between user internal factors and the peer environment which is in contrast to other forms of online commerce unique to p2p marketplaces.

The aim of this study is to replicate earlier finding on the influence of disposition to trust and experience with the online commerce as well as the mediation effect of trust on trusting intentions in line with the TRA. Furthermore this study seeks to make out the unique property of p2p marketplaces in investigating the influence of the peer environment by investigating the influence of similarity between peers on trust. Figure 2 illustrates the postulated research model.

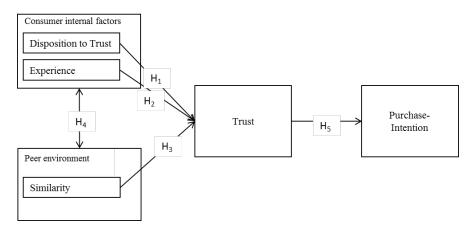


Figure 2 The research model

### **General Method**

The present study examines the influence of user-internal factors and similarity with the peer in the context of the p2p online marketplace AirBnB in an online simulation experiment.

# **Participants**

Participants were recruited online via social networks. As an incentive to participate two participants were randomly drawn to win an Amazon gift card each worth 25 Euros. From 600 people who started the questionnaire 355 (133 male and 222 female) completed the survey and were used for statistical analysis. Participants are all German-speaking; their age ranges from 18 to 66 years (M = 29.92, SD = 11.34). One hundred and ninety-nine of the participants indicated to be students (56.1%), 133 are currently employed (37.5%) and 23 are neither student nor employed (6.5%).

#### **Procedure**

The study was conducted with the help of an online survey software (Qualtrics). After a short introduction that assured anonymity, participants were asked for their demographic information, occupation, preferences on hobbies and whether they are politically or socially committed. In a

next step participants were instructed to imagine that they want to spend a weekend vacation with their best friend in Paris and seek for an accommodation via AirBnB. Following the instructions participants were presented six accommodation offers that were designed to resemble offers on AirBnB. The apartments were represented by a picture of the ground plan, the price, a short description and a rating by former guests which ranged between three to five out of five stars, which were presented randomly (the ratings are relevant for a second paper by Lara Wolter). The layout and description of the apartments differed only slightly and the price ranged between 104 € and 119 € per night. The apartment offers were randomly drawn and presented out of a pool of 25 different offers. After each apartment offer they were asked how attractive they found the specific apartment on a 7-point Likert scale (ranging from 1=not at all attractive to 7=very attractive). This question served as a control question to make sure apartments didn't differ in attraction between the different experimental conditions.

Each apartment offer was followed by a short profile of the peer who offered the particular apartment. These profiles were either similar to the participant (similar-condition) or not similar to them (not-similar-condition). The similarity manipulation was based on sex, age group, occupation, hobby and political or social commitment (an example can be found in the appendix, A 18-23). Each participant was shown three apartment offers combined with a similar peer-provider and three offers combined with a not-similar peer-provider. Similar and not-similar profiles were presented in random order.

Each combination of accommodation offer and peer-provider was followed by the question how similar the participant felt him- or herself to the peer-provider. Participants indicated perceived similarity on a single item 7-point Likert scale, ranging from 1=not at all similar to 7=very similar. On the next page the trust questionnaire adapted from Kim and Park (2013) was presented (Cronbach- $\alpha$ =0.935). Participants were asked to indicate in how far they agree with

statements about trusting the peer-provider on a 7-point Likert scale. Then participants were asked how likely he or she would book this particular apartment from the peer-provider on a continuous 0 to 100 percent scale.

After the six apartment-provider combinations additional questionnaires were presented. Experience with AirBnB was assessed using five items adapted from Gefen and colleagues (2000) (Cronbach- $\alpha$ =0.891). Disposition to trust was assessed using 9 items adapted from Jones and Leonard (2008). The scale comprises two factors. A factor of six items represents the participant's faith in humanity (Cronbach- $\alpha$ =0.693) while the remaining three items represent the participant's trusting stance (Cronbach- $\alpha$ =0.829). These scales also use a 7-point Likert scale. Additionally participants were asked to fill out the Big Five Inventory-10 (Rammstedt, Kemper, Beierlein, & Kovaleva, 2012) to account for possible confounding variables. A graphic overview of the experimental procedure can be found in the appendix (A 1).

#### Pilot Study

A pilot study was conducted to validate the apartment offers used for the main study. The aim of the pilot study was to ensure that the purchase-intention of the participants is not distorted by the influence of attraction of the apartment offers. Therefore, the 25 different apartment offers used in the study were sent out to 43 people for rating of attractiveness. Results from an One Way ANOVA show that mean attractiveness ratings do not differ significantly between the apartments despite their differences in design, description and price (F(24,779) = 1.136, p = 0.297). Following these results I assume that perceived attractiveness of the apartment offers won't bias the main analysis.

#### **Results**

The statistical analysis of the data was conducted in multiple steps. In a first step manipulation checks for the similarity manipulation and the attraction of apartments over the six conditions were conducted. In a second step, the influence of the independent variables disposition to trust, experience with AirBnB and perceived similarity with the peer-provider on trust was analyzed by using a regression analysis (H<sub>1</sub>, H<sub>2</sub> and H<sub>3</sub>). In a next step, also by regression analysis, I checked for the existence of an interaction effect between user internal factors and perceived similarity (H<sub>4</sub>). The fourth step consisted of a mediation analysis to test H<sub>5</sub>.

### Manipulation Check

Similarity Manipulation. To test whether the manipulation of perceived similarity between the participant and the peer-provider has worked as intended the mean scores of perceived similarity were compared for the similar and not-similar condition. To compare the two experimental conditions, perceived similarity scores obtained from the three similar profiles, and three not-similar profiles respectively were summarized by taking the average. Because the assumption of normally distributed score differences for the parametric T-test was violated, the nonparametric Wilcoxon Test was performed. Results show that perceived similarity scores are significantly higher in the similar condition (M = 4.563, SD = 1.176) than in the not-similar condition (M = 2.145, SD = 0.903; Z = -39.223, P < 0.001). The results show that the manipulation of similarity has worked as intended.

Attraction of accommodation offers. A manipulation check for attraction of the accommodation offers was carried out to make sure that the influence of the independent variables on trust and purchase intention respectively were not biased by properties of the different apartments presented. A repeated measures ANOVA was conducted to compare mean

scores for attraction across the six conditions. Mauchly's test of Sphericity was not significant  $(\chi^2(14) = 16.701, p = 0.272)$ . Results show that there is no significant difference of apartment attraction across the six conditions (F(5) = 0.521, p = 0.761). Therefore I assume that properties of the accommodation offers do not bias the results of the main analysis.

Because prices varied across the presented accommodation offers it would be possible that participants' perception of the peer-provider or their intention to book a particular accommodation was influenced by the price. To preclude that results are biased by the presentation of different prices, Spearman correlation coefficients between displayed price, purchase intention (r=0.004), perceived attraction of the offer (0.039) and trust in the peer-provider (r=0.015) were calculated. None of the correlation coefficients showed any relation between the price displayed and the measures. Therefore I assume that the variation of accommodation offers won't bias the results of the main analysis.

### Regression Analysis

Due to the within-subject research design the present data have a repeated measurement structure. To take into account the data structure regression analysis was conducted using the software STATA, which allows adjusting standard errors for repeated measurement data structure.

Influence of independent variables on trust. To identify the influence of user the internal factors disposition to trust and experience with AirBnB, as well as the influence of perceived similarity on trust, a regression analysis was performed. Residual plots showed that there was no heterosceasticity to be found in the data. The examination of the variance inflation factors (VIF) showed that variables used in the model were independent ( $Mean\ VIF = 1$ ). Table 1 shows the regression results.  $H_1$  and  $H_3$  were supported by the results; disposition to trust and perceived

similarity each showed a significant positive effect on trust in the peer-provider. There was no support for H<sub>2</sub>; experience showed no significant effect on trust.

Table 1

Regression on Trust

Predictor	В	Robust SE	t	p	95% CI
Constant	3.06	0.25	12.09	< 0.001	[2.56,3.56]
Perceived Similarity	0.16	0.02	11.10	< 0.001	[0.13,0.19]
Disposition to Trust	0.33	0.05	6.97	< 0.001	[0.24,0.42]
Experience	0.01	0.02	0.46	0.648	[-0.03,0.06]

Overall model fit:  $F(2,354) = 56.23, p < 0.000; R^2 = 0.154$ 

Note: Number of observations=2130, Standard Errors adjusted for 355 clusters in id

Confounding variables. According to Hiraishi and colleagues positive correlations between disposition to trust and the personality traits extraversion and agreeableness can be expected. The calculation of Pearson correlation coefficients confirmed this prediction: disposition to trust correlates positively with extraversion (r = 0.14, p<0.001) and with agreeableness (r = 0.5, p<0.001).

To check whether the influence of disposition to trust on trust is distorted by the variables extraversion and agreeableness, the two personality traits were added into the regression model. Table 2 shows the results of the extended regression model. Agreeableness and extraversion both show a significant positive effect on trust. However the effect of disposition to trust remains highly significant even when controlling for the two personality traits.

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Table 2

Regression on Trust Controlling for Extraversion and Agreeableness

Predictor	В	Robust SE	t	p	95% CI
Constant	2.56	0.28	9.16	< 0.001	[2.01,3.11]
Perceived Similarity	0.16	0.01	11.43	< 0.001	[0.14,0.19]
Disposition to Trust	0.23	0.06	3.96	< 0.001	[0.12,0.35]
Experience	0.01	0.02	0.19	0.853	[-0.03,0.05]
Extraversion	0.10	0.04	2.28	0.023	[0.01,0.18]
Agreeableness	0.19	0.6	3.05	0.002	[0.07,0.32]

Overall model fit:  $F(2,354) = 41.26, p < 0.001; R^2 = 0.177$ 

Note: Number of observations=2130, Standard Errors adjusted for 355 clusters in id

Interaction effect. Because the previous model showed no effect for experience with AirBnB, this variable was left out for further analysis. For testing H<sub>4</sub> an interaction term between disposition to trust and perceived similarity was introduced into the regression model. For testing the interaction effect it is necessary to center the predictor variables on their mean value. Residual plots showed no heteroscedasticity in the data. As in the previous model, disposition to trust and perceived similarity showed significant positive effects on trust. However the fourth hypothesis was not supported. The results showed no interaction effect between disposition to trust and perceived similarity. This means that the two variables influence trust in the peer-provider independently.

Table 3

Analysis of interaction effect – Regression on Trust

Predictor	В	Robust SE	t	p	95% CI
Constant	5.10	0.04	126.18	< 0.001	[5.02,5.18]
Perceived Similarity (centered)	0.16	0.01	11.23	< 0.001	[0.23,0.42]
Disposition to Trust (centered)	0.32	0.05	6.98	< 0.001	[0.23,0.41]
Perceived Similarity * Disposition to Trust	-0.03	0.02	-1.48	0.141	[-0.07,0.01]

Overall model fit:  $F(2,354) = 60.93, p < 0.001; R^2 = 0.156$ 

Note: Number of observations=2130, Standard Errors adjusted for 355 clusters in id

#### **Mediation Analysis**

For conduction mediation analysis SPSS offers a helpful dialog box created by Andrew Hayes (2013), called PROCESS. However, this method doesn't take into account the repeated measurement structure of the data. An alternative method for conducting mediation analysis is to calculate the indirect effect by hand, using the method suggested by Baron and Kenny (1986). For the purposes of this study it seems more practical to use PROCESS, because it allows to obtain effect sizes and to test a model with multiple predictors. To test whether ignoring the data structure influences the results, simple mediation analysis with only one predictor at a time is conducted with both methods and then compared.

In Model 1 perceived similarity was used as a predictor variable and in model 2 disposition to trust served as the predictor. For the Baron and Kenny method three separate regression models are calculated to obtain the coefficients a, b and c (Figure 3).

The results of relevant regression analysis are presented in tables 3 and 4 (for model 1 and 2). The robust results were obtained using the adjusted standard errors method available in STATA. The results show that robust standard errors are bigger than the unadjusted ones. However the p-

values and therefore the interpretation of results didn't differ between the two methods. Hence, for analyzing the mediation effect of trust the method suggested by Hayes will be used.

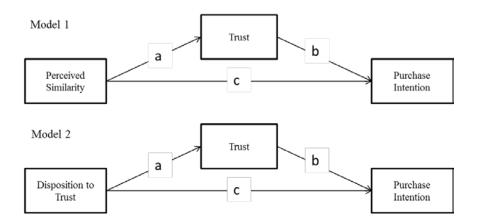


Figure 3 Mediation Models

Table 4

Model 1	Beta	Robust SE	SE	Robust t	t	Robust p	p
a	0.176	0.015	0.013	11.53	13.95	< 0.001	< 0.001
b	13.903	0.618	0.408	22.49	34.04	< 0.001	< 0.001
c	5.961	0.343	0.281	17.38	21.219	< 0.001	< 0.001

Table 5

Model 2	Beta	Robust SE	SE	Robust t	t	Robust p	p
a	0.355	0.049	0.026	7.19	13.837	< 0.001	< 0.001
b	13.903	0.618	0.408	22.49	34.035	< 0.001	< 0.001
c	3.877	1.233	0.622	3.15	6.237	0.002	< 0.001

The mediation analysis was conducted in three steps. First the mediation effect of trust was calculated for two separate models, each having only one predictor variable (Figure 3).

For model 1, in which perceived similarity served as predictor variable, trust showed a small indirect effect on purchase intention ( $\delta = 2.13$ ; 95% CI[1.795; 2.476],  $\kappa^2 = 0.196$ ). The results of the Sobel test indicated that the mediation effect of trust is highly significant (z = 12.63, p < 10.00).

0.000). Perceived Similarity also showed a significant direct effect on purchase intention ( $\gamma=3.83, p<0.001$ ). In Model 2 disposition to trust served as a predictor variable. The mediation analysis showed again that trust has a small indirect effect on purchase intention ( $\delta=5.031,95\%$   $CI[4.163;5.922],\kappa^2=0.19$ ). The Sobel test indicated high significance of the mediation effect of trust on purchase intention (z=12.77, p<0.001). The analysis showed that there was only a very small direct effect of disposition of trust on purchase intention ( $\gamma=-0.154, p<0.029$ ).

In a next step the complete mediation model was analyzed with both disposition to trust and perceived similarity serving as multiple predictor variables. Results are presented in Figure 4.

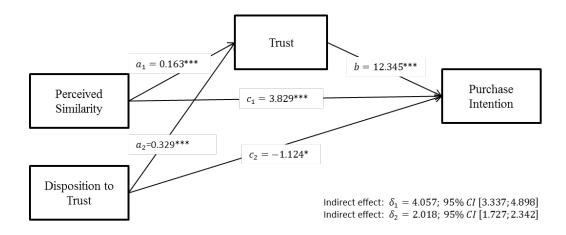


Figure 4 Complete Mediation Model

The full mediation analysis showed that the mediation effect of trust remains significant for both predictor variables also when the model controls for the second predictor at a time ( $\delta_1 = 4.06$ ,  $\delta_2 = 2.02$ ).

#### **General Discussion**

The goal of this study was to identify factors that foster consumers' trust in peers on p2p online market places. The setup of this study was designed to take into account user-internal variables affecting trust as well as assessing the influence of the peer environment which is unique to p2p marketplaces. More specifically, disposition to trust (H<sub>1</sub>) and experience with AirBnB (H<sub>2</sub>) were investigated to account for user-internal factors. The peer-environment was taken into account by manipulating the similarity between the user and the peer-provider of a holiday accommodation on AirBnB (H<sub>3</sub>).

The results of the manipulation check showed that the manipulation of perceived similarity with the peer-provider has worked very well. Participants felt themselves significantly more similar to the providers in the similar condition than in the not-similar condition. Furthermore the manipulation checks have shown that the variation in the presented accommodation offers that were designed to make the experimental setup more realistic, did not affect the participants' trust in the peer or his or her purchase intention and therefore did not bias the results of the main analysis.

The first aim of the study was to identify relevant factors that influence consumers' trust in peer on p2p marketplaces. The results of this study lent support for H<sub>1</sub> which predicted a positive effect of the participant's disposition to trust on his or her trust in the peer. This finding is consistent with the trust framework suggested by McKnight and colleagues (McKnight et al., 2002). Jones and Leonard (2008) did not find support for the positive effect of disposition to trust on trust in their study and argued that this might be due to the special characteristics of consumer to consumer e-commerce. This study however shows that disposition to trust has an effect on trust also in this special e-commerce context.

Further analysis showed that disposition to trust is related to the personality traits extraversion and agreeableness. Hiraishi and colleagues (2008) explain this relationship with disposition to trust being a mental mechanism that is more useful for people with high extraversion and agreeableness, because these people enjoy forming new relationships with strangers more than others. Despite the positive correlation between disposition to trust and extraversion and agreeableness respectively, the effect of disposition to trust on trust remained highly significant when controlling for the two personality factors.

As a second user-internal factor experience with AirBnB was investigated. Previous research has shown that experience with a certain web vendor enhances knowledge-based trust and the intention to purchase from this web vendor (Gefen et al., 2003a, 2003b; Gefen, 2000). The results of this study did not support this hypothesis (H<sub>2</sub>). A reason for the lack of support could be that even if participants have former experience with AirBnB, they do not have experience with the particular peer-provider that was presented to them in this study. It is possible that general experience with the platform AirBnB does not transfer to the interaction with the peer. Another possible explanation is that this study did not distinguish between good and bad experiences. Gefen (2000) used amazon as an example for an e-commerce in his study, because according to the Better Business Bureau experiences with amazon are in general good ones. However, I do not have such information about AirBnB and it is possible that the effect of experience on trust could not be shown, because a high score on the experience scale mixed up good and bad experiences.

The second goal of this study was to investigate the influence of the peer environment. The results of this study supported H<sub>3</sub>, which predicted a positive effect of perceived similarity with the peer on trust. These results are in line with the literature reviewed for this research. For example Smith and colleagues (2005) found a strong relationship between rapport and trust in the peer in the context of online restaurant recommendations. The results suggest that people find it

easier to trust peers that are similar to themselves. The lack of an interaction effect between perceived similarity and disposition to trust (H<sub>4</sub>) suggests that this relationship is true independently from the person's general tendency to trust. Smith and colleagues (2005) found that the relationship between rapport and trust in the peer is stronger when the participant was instructed to pursue a hedonic goal rather than a utilitarian one, meaning the participant was instructed to look for a restaurant for a birthday celebration vs for a business lunch meeting. Also this study investigates the context of hedonic goals (holiday with a friend). Therefore it is not clear in how far these results are generalizable to other online purchasing situations on p2p marketplaces.

The third goal of this study was to investigate the mediating role of trust in purchases on p2p marketplaces. In line with the Theory of Reasoned Action H<sub>5</sub> was supported by the results. Trust mediates the effect of its antecedents and purchase intention. Furthermore the mediation analysis showed that perceived similarity also has a direct effect on purchase intention whereas the direct effect of disposition to trust on purchase intention was very small. These results suggest that a least for perceived similarity trust has only a partial mediating effect.

### Contributions and Implications

In line with previous research this study highlights the importance of trust for online commerce. Because of the low-threshold to participate in p2p online commerce the segment is growing and customers and providers of goods and services can be quite diverse. This study provides useful insights in the mechanisms of trust formation accounting for the unique characteristics of p2p marketplaces.

This research adds to the existing literature on the field of trust in consumer to consumer online commerce in providing results from an experimental simulation survey. By simulating the

p2p marketplace AirBnB, the effects of the relevant factors could be isolated from interfering external influences. The experimental manipulation of similarity was newly created for this study and has worked very well, as the manipulation checks showed.

The factor perceived similarity is unique to p2p marketplaces, because in contrast to traditional e-commerce interaction takes place between equals. The positive effect of perceived similarity on trust and on purchase intention shows that users need to identify with the peer to trust them. This highlights the importance of providing personal information for the peer-provider. The results suggest that personal information is not only used for the informational content itself, but also to create personal relation among the peers. Therefore it is helpful also to provide information that is not immediately relevant for the particular context, but for helping the peers to relate and identify.

The findings of this study also have relevance for the operators of p2p marketplaces. The results show that consumers build up more personal relations on p2p marketplaces than in traditional business to consumer e-commerce. Therefore the platform must provide space for the exchange of personal information and experiences that facilitate trust formation among the peers.

#### Limitations and Future Research

AirBnB is a worldwide active p2p marketplace. However participants in this study were restricted to the German speaking population. Therefore a limitation of this study may be the generalizability of the results, because trusting behavior also depends on cultural differences (Mayer et al., 1995). A suggestion for future research is to adapt the survey tools in English and collect data from different countries to increase the generalizability of the results.

Another limitation of this study is the assessment of attitudes instead of behaviors. Even though the TRA states that behavioral intentions correlate positively with the correspondent

behaviors, the external validity of the results is not quite clear. Additionally all of the variables were collected using self-reporting questionnaires. Therefore the common method variance can be another source of concern regarding the validity of the results.

Future research should adjust the experience scale used in this study to distinguish between good and bad former experiences. The way experience was assessed in this study does not allow interpreting the lack of support for  $H_2$ .

Furthermore the low R<sup>2</sup> in the regression model analyzing the factors influencing trust suggests that there are more variables that play a role in forming trust in a peer on p2p marketplaces. Therefore future research should aim to identify more key variables responsible for trust formation on p2p marketplaces.

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# Appendix

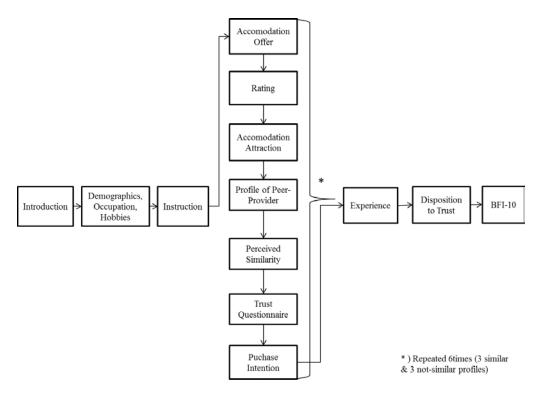
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# Format of Experiment



A 1 Experimental Procedure

Lieber Teilnehmer, liebe Teilnehmerin,

danke für dein Interesse an unserer Studie teilzunehmen! Mit der Beantwortung des nachstehenden Fragebogens trägst du zu der wissenschaftlichen Forschung der Fakultät für Psychologie an der Universität Wien bei. Die Erhebung wird im Rahmen unserer Diplomarbeit durchgeführt. Die Daten werden absolut vertraulich behandelt und werden nicht für kommerzielle Nutzung zur Verfügung gestellt.

Es gibt im folgenden Fragebogen keine richtigen und falschen Antworten, wir bitten dich spontan und ehrlich zu antworten.

Die Bearbeitung des Fragebogens dauert ca. 10 Minuten.

Bei Fragen und Anregungen kannst du uns eine E-Mail schreiben (a0947159@unet.univie.ac.at; a0947395@unet.univie.ac.at)

Unter allen Teilnehmer/innen verlosen wir zwei Amazon-Gutscheine im Wert von je 25 Euro!

Danke für deine Unterstützung!

Janina Enachescu & Lara Wolter

#### A 2 Introduction



# A 3 Demographics



A 4 Occupation for Students



# A 5 Occupation for Working

Was ist dein Hobby? (Bitte wähle die Tätigkeit aus, die dir am wichtigsten ist)
Individual-Sport
Teamsport
Beobachtungen (Astrologie etc.)
Musik
Kulinarik
bildende Kunst
Weiterbildung
Outdoor Aktivitäten
Spiele
Literatur
Sammeln (Briefmarken etc.)

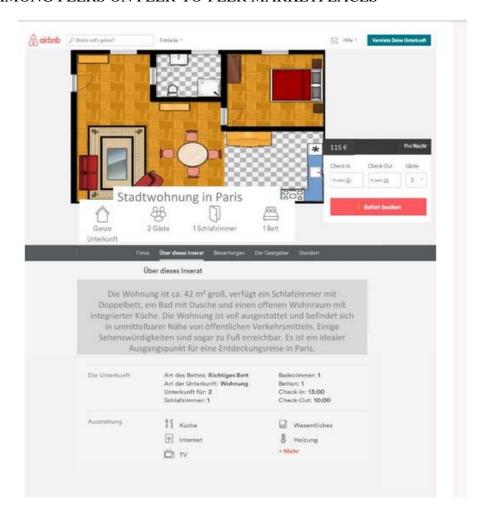
A 6 Hobby



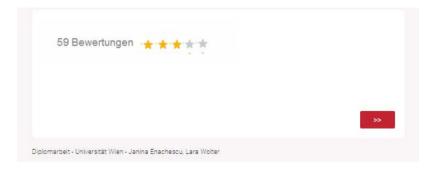
#### A 7 Commitment



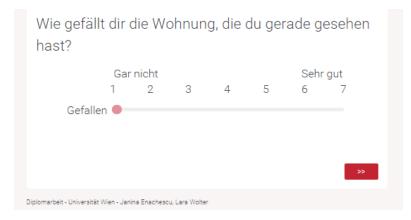
# A 8 Instruction



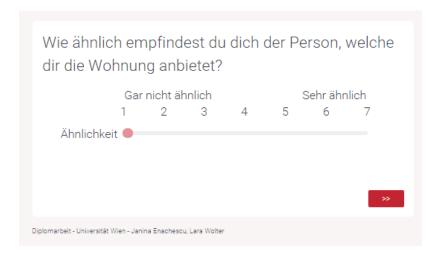
## A 9 Example of Accommodation Offer



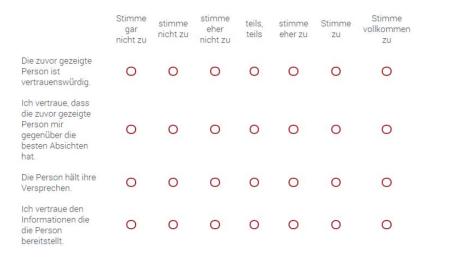
A 10 Example for Rating



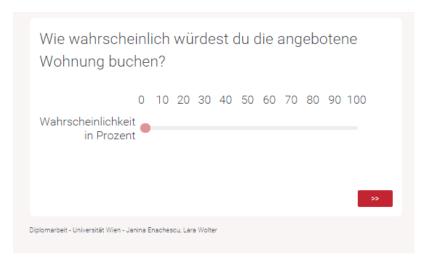
### A 11 Attraction of acommodation Item



## A 12 Perceived Similarity



#### A 13 Trust Scale



A 14 Purchase Intention Item

	Trifft überhaupt nicht zu	Trifft nicht zu	Trifft eher nicht zu	Weder noch	Trifft eher zu	Trifft zu	Triffi voll und gang zu
Generell interessiere ich mich sehr für das Wohlbefinden von Anderen.	0	0	0	0	0	0	0
Eine "typische" Person kümmert sich viel um die Probleme Anderer.	0	0	0	0	0	0	0
Meistens kümmern sich Menschen eher um Andere, als sich um sich selbst zu kümmern,	0	0	0	0	0	0	0
Generell halten die meisten Menschen ihre Versprechen.	0	0	0	0	0	0	0
Ich denke, dass die Worte und Handlungen von Menschen miteinander übereinstimmen.	0	0	0	0	0	0	0
Die meisten Menschen sind ehrlich im Umgang mit Anderen.	0	0	0	0	0	0	0
Normalerweise vertraue ich Menschen solange bis sie mir einen Anlass geben ihnen nicht vertrauen zu können	0	0	0	0	0	0	0
Generell haben Menschen, die ich zum ersten Mal treffe, bei mir einen Vetrauensbonus.	0	0	0	0	0	0	0
Neuen Bekanntschaften vertraue ich solange, bis sie mir einen Beweis geben, dass ich ihnen nicht vertrauen sollte.	0	0	0	0	0	0	0

A 15 Disposition to Trust scale

	Trifft überhaupt nicht zu	Trifft nicht zu	Trifft eher nicht zu	Weder noch	Trifft eher zu	Trifft zu	Trifft voll und ganz zu
Ich bin damit vertraut Urlaubsunterkünfte im Internet zu suchen.	0	0	0	0	0	0	0
Ich bin damit vertraut Urlaubsunterkünfte im Internet zu buchen.	0	0	0	0	0	0	0
lch bin im Umgang mit AirBnB vertraut.	0	0	0	0	0	0	0
Ich bin mit dem Buchungsprozess von Urlaubsunterkünften bei AirBnB vertraut.	0	0	0	0	0	0	0
Ich bin damit vertraut mich nach Bewertungen von Unterkünften bei AirBnB zu erkundigen.	0	0	0	0	0	0	0

A 16 Experience with AirBnB scale

Inwieweit treffen die folgenden Aussagen auf dich zu?

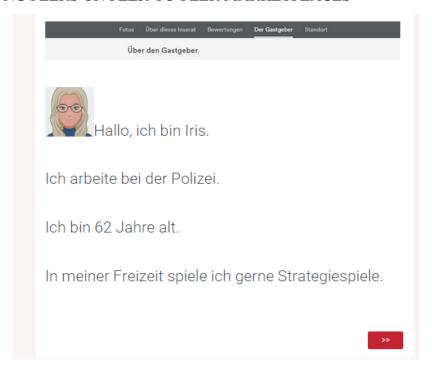
lch...

	Trifft überhaupt nicht zu	Trifft eher nicht zu	Weder noch	Trifft eher zu	Trifft voll und ganz zu
bin eher zurückhaltend, reserviert.	0	0	0	0	0
schenke anderen leicht Vertrauen, glaube an das Gute im Menschen.	0	0	0	0	0
bin bequem, neige zur Faulheit.	0	0	0	0	0
bin entspannt, lasse mich durch Stress nicht aus der Ruhe bringen.	0	0	0	0	0
habe nur wenig künstlerisches Interesse.	0	0	0	0	0
gehe aus mir heraus, bin gesellig.	0	0	0	0	0
neige dazu, andere zu kritisieren.	0	0	0	0	0
erledige Aufgaben gründlich.	0	0	0	0	0
werde leicht nervös und unsicher.	0	0	0	0	0
habe eine aktive Vorstellungskraft, bin phantasievoll.	0	0	0	0	0

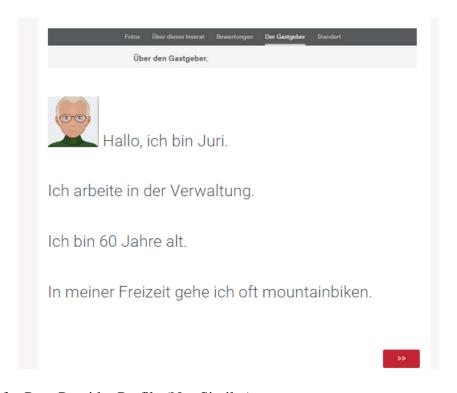
### A 17 BFI-10

The following peer-provider profiles are examples and are presented to illustrate of the similarity manipulation. The profile examples shown here would have been presented in randomized order to a participant who indicated the following characteristics:

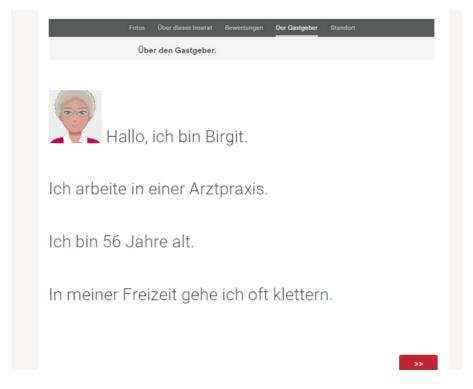
- Male
- 24 years old
- Student, studying science
- Likes music
- Is socially committed in his free time.



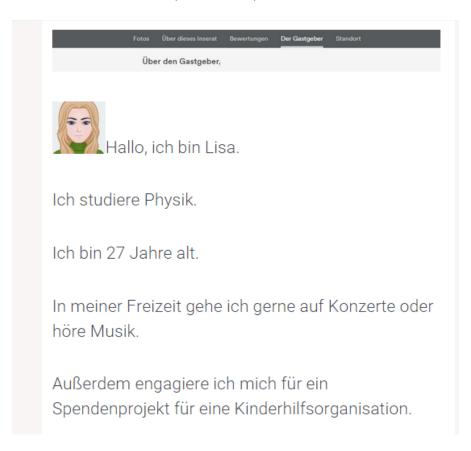
# A 18 Example for a Peer-Provider Profile (Not-Similar)



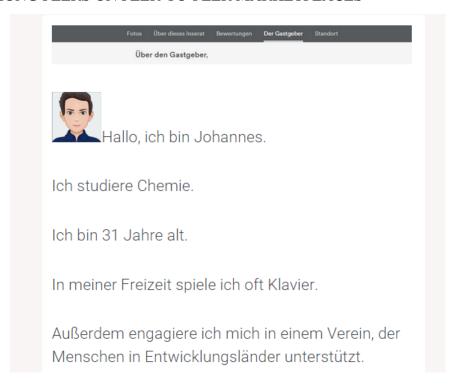
A 19 Example for Peer-Provider Profile (Not-Similar)



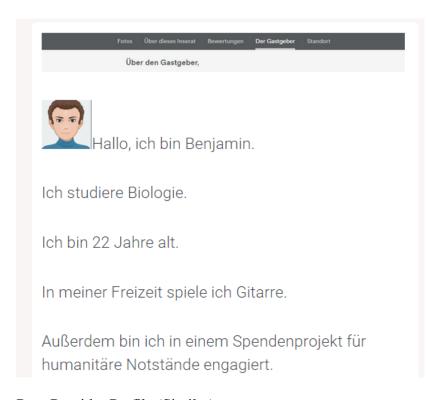
## A 20 Example for Peer-Provider Profile (Not-Similar)



## A 21 Example for Peer-Provider Profile (Similar)



## A 22 Example for Peer Provider Profile (Similar)



## A 23 Example for Peer-Provider Profile (Similar)

### Zusammenfassung

E-Commerce ist ein wachsender Wirtschaftssektor. Im Gegensatz zu traditionellem Kommerz, kennen sich Vertragspartner/innen bei Onlinegeschäften meist nicht persönlich und stehen sich auch nicht persönlich gegenüber. Vertrauen muss somit über die physische Distanz hinweg aufgebaut werden und die Anonymität des Internets überwinden. Auf Peer to Peer-Marktplätzen im Internet kommt noch hinzu, dass die Konsumenten Güter nicht von professionellen Geschäftspartnern erwerben, sondern von Ihresgleichen. Daher ist anzunehmen, dass Vertrauen auf Peer to Peer-Marktplätzen eine entscheidende Rolle spielt und anders gebildet wird als in traditionellem Kommerz.

Diese Studie untersucht die Einflussfaktoren Vertrauensdisposition, Erfahrung mit AirBnB und Ähnlichkeit zwischen Teilnehmer/in und Peer-Anbieter/in auf Vertrauen in Peers auf Peer to Peer-Marktplätzen am Beispiel AirBnB mit Hilfe einer Online-Simulations-Studie. Der Literatur zufolge wurde angenommen, dass alle drei Einflussfaktoren (Vertrauensdisposition, Erfahrung mit AirBnB und Ähnlichkeit) in einem positiven Zusammenhang mit Vertrauen stehen.

In Anlehnung an die Theory of Reasoned Action wurde angenommen, dass Vertrauen als Mediator zwischen den Einflussfaktoren und der Intention eine Ferienwohnung von einem bestimmten Peer wirkt.

Die Ergebnisse dieser Studie bestätigen den positiven Einfluss von Vertrauensdisposition und Ähnlichkeit auf das Vertrauen in Peers. Entgegen der literaturgeleiteten Vermutung, zeigte Erfahrung mit AirBnB keinen signifikanten Einfluss auf Vertrauen.

In Übereinstimmung mit der Theory of Reasoned Action zeigten die Ergebnisse, dass Vertrauen als Mediatorvariable zwischen den Einflussfaktoren Vertrauensdisposition und Ähnlichkeit und der Intention von einem bestimmten Peer zu buchen wirkt.

Ich versichere, dass ich die Diplomarbeit ohne fremde Hilfe und ohne Benutzung anderer als der angegebenen Quellen angefertigt habe, und dass Ich die Arbeit in gleicher oder ähnlicher Form noch keiner anderen Prüfungsbehörde vorgelegt habe. Alle Ausführungen der Arbeit die wörtlich oder sinngemäß übernommen wurden, sind als solche gekennzeichnet.

Wien, Juni 2015

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