

Ideas in Motion: The Role of Firm and Peer Feedback in Driving Continuance Customer Intention to Participate in Ideation Contests



Radboud Universiteit

Student Name: **Jebid Tem Temi**

Student Number: **S1086443**

1st Supervisor Name: **Hanif Widyanto**

2nd Examiner Name: **Prof. Bas Hillebrand**

Date: **23 June 2023**

Master Thesis Business Administration, Marketing

Abstract:

The aim of this study is to look at the effects of both peer feedback and firm feedback separately and combined on the customers' continuance intention to participate in the company's future ideation contests. In order to research these effects, an experiment is carried out and distributed in the form of survey. Participants are randomly assigned to one of four groups and asked to score their continued desire to participate in future ideation competitions of the fictional company based on whether they received no feedback, peer feedback, firm feedback, or feedback from both sources.

The survey has been conducted with 165 participants. The analysis revealed that the firm and peer feedback on their own did not have positive effect on the continuance intention. However, the interaction effect between the peer and the firm feedback was significant. Moreover, when firm response is lacking in ideation competitions, peer feedback is an essential motivator in increasing a customers' continued intention to participate in a future ideation contest. When both types of feedback are available, however, the intention to continue is not significantly different than when just peer input is present.

Key words: continuance intention, peer feedback, firm feedback, social marketing

Table of Contents

1. Introduction	1
1.1 Research Problem	1
1.2 Research Purpose.....	2
1.3 Theoretical and Practical Relevance.....	4
1.4 Outline of the Thesis.....	4
2. Literature Review.....	5
2.1 Ideation Contest.....	5
2.2 Continuance Intention.....	5
2.3 Feedback	6
2.3.1 Peer’s feedback in ideation contest	6
2.3.2 Firm’s feedback in ideation contest	7
2.4 Control Variable	8
2.5 Conceptual Framework.....	8
<i>Fig 1. Conceptual Framework</i>	8
3. Methodology.....	9
3.1 Research Method	9
3.2 Design	9
<i>Table 1. Experimental Design</i>	10
3.2.1 Scenario	10
3.2.2 Measurements	11
3.2.3 Participants.....	11
3.2.4 Pre-test.....	12
3.3 Manipulation Check.....	13
3.4 Analysis.....	14
3.5 Validity & Reliability	14
3.6 Ethics.....	15
3.7 Data Analysis	15
4. Results	17
4.1 Data Preparation	17
4.2 Outliers.....	17
4.3 Effect of feedback on continuance intention.....	17
<i>Table 2: ANOVA excluding the outlier and previous experience</i>	18

4.3.1 Hypothesis 1.....	19
4.3.2 Hypothesis 2.....	19
4.3.3 Hypothesis 3.....	19
<i>Table 3. Mean Scores of Continuance Intention of the Groups</i>	19
4.4 Additional Analysis	20
4.4.1 Base Model with Gender	20
4.4.2 Base Model with Age and Education as Control Variables	20
5. Discussion.....	21
5.1 Discussion and Conclusion	21
<i>Table 4. Results Summary</i>	22
5.2 Theoretical Contributions.....	23
5.3 Managerial Implications	23
5.4 Research Limitations and Future Research.....	23
Bibliography	25
Appendix A: Survey in English.....	30
Appendix B: Survey in Dutch.....	34
Appendix C: Demographics	41
Appendix D: Reliability and Outlier Analysis.....	44
Appendix E: ANOVA with Outlier and Prior Experience	45
Appendix F: ANOVA with Outlier and without Prior Experience	47
Appendix G: ANOVA without Outlier and without Prior Experience.....	49

1. Introduction

The advancement of digital technology has created a more cost-effective and richer approach for a company to engage many customers in its innovation process (Sawhney, Verona, & Prandelli, 2005). Therefore, more companies are seeking the customers' input in solving problems that the companies are facing, through generating and crowdsourcing new ideas on online platforms that are hosted by the company. Since the companies are seeking a solution, they are called the seekers and the customers providing the solution are called the solvers (West & Lakhany, 2008). Crowdsourcing is the act of outsourcing work normally handled by a specified agent (usually an employee) to an indeterminate, generally large group of people via an open call (Howe, 2006). Depending on how work is outsourced to individuals, online crowdsourcing ideas might operate in a variety of ways. One way to do crowdsourcing is by hosting ideation contests for crowdsourcing solutions to corporate problems (Terwiesch & Xu, 2008), and another way is a continual open call that invites people to develop ideas again and over again (Bayus, 2013).

In this research, the focus will be on ideation contests, which is one-time competitions or challenges run over a certain period of time where teams or individuals are asked to submit proposals or answers to a particular issue or challenge where the solvers have the chance to win prizes when their idea wins the contest (Jain & Deodhar, 2022). The reason why ideation contest is chosen to focus on in this research compared to the rest of the co-creation means, is that ideation contests offer many advantages. One of the advantages of using ideation contests is that they offer organizations and businesses fresh concepts for new product development, marketing strategies, or other commercial endeavors (Jiang & Wang, 2020). Another reason is that these ideation contests do not help only to generate new ideas, but also generate word-of-mouth as well as joint dedication to new products/services (Nabisan & Baron, 2007). Moreover, repeated exchanges with the consumers through ideation contests can be beneficial not just for generating new ideas, but also for keeping up with the advancements of the customers' preferences (Cui & Wu, 2017). Therefore, participation is critical and significant contributions to the new product development process can only be expected when brilliant people are eager to share their creative ideas and submit their inventive designs (Füller, Hutter & Faullant, 2011).

1.1 Research Problem

Companies such as L'Oréal, Ikea, and Unilever fund idea crowdsourcing groups to obtain answers and ideas directly from their consumers and efficiently utilize the varied knowledge, experience, talents, and resources of the public. However, one of the problems that the firms/the seekers faced on the platforms in the ideation contests, is that many contestants grow inactive over time and as a result, the number of participants in the firm's future ideation contests falls (Hofstetter et al., 2018). There are some examples of this problem. In one example, 36.62 % of competitors competed in another event (Hofstetter et al., 2018). In another case, just 11.7% did (Wang et al., 2020).

Companies assume that increasing the quantity of ideas, it will increase the possibility of acquiring good quality ideas, as they will acquire more diverse ideas (Zheng et al., 2011).

Furthermore, the more customer-generated ideas the more the possibility of enhancing businesses' attempts to create relationships with consumers, meaning that the more customers participate in the ideation contest, the more opportunity to find innovative ideas (Walczuch et al. 2001). Therefore, different suggestions in the literature were proposed to encourage customers to continue participating in the ideation contests, such as monetary incentives (e.g., Sun et al, 2012), present co-creation experience (Füller et al., 2011) and satisfaction (Wang & Wang, 2019). Another important one is feedback. The companies that offer support to the participants in the form of feedback have a higher chance of getting the participants to participate in innovative efforts in future contests. As a result of returning contestants who previously received feedback, the contest quality improves (Hofstetter et al., 2018). Similarly, according to Baruch et al. (2016), high-quality communication and feedback are critical in retaining an interest in crowdsourcing.

Additionally, it was found that the company interacting with the participants during the ideation contest is critical because a firm's mentorship and assistance can help participants produce new ideas (Kiran & Sharma, 2021). Moreover, when determining whether to submit a concept to a contest, the participant has the choice of putting up effort (and creating an entry) or not. In a way, feedback is likely to impact the chance of exerting effort, because agents who feel linked to a process are more inclined to participate in that process, engaging with the administrator is more likely to result in higher involvement (Wooten & Ulrich, 2017).

Inversely, the lack of feedback may also reduce the sense of community, which appears to be a driving incentive in many open innovation environments (Lakhani et al., 2007). Furthermore, solvers are frequently irritated by sluggish or no feedback, which might be the result of a lack of conversations and connections in a virtual world (Huang et al., 2014; Wang et al., 2020). Different studies used different forms of firm feedback in their research, Hofstetter et al., (2018) used ranking as a feedback form of the solvers' submissions. However, according to Bayus, (2013) commenting activities might boost value judgments, letting solvers feel a stronger feeling of membership. Therefore, comments as the form of firm feedback will be used in this research paper.

On the other hand, according to a study done by Hargadon and Bechky (2006), collaborative behaviors in communities (peer-to-peer) can spark fresh ideas that customers or businesses could not produce on their own. However, according to Yang and Han (2021), excessive peer engagement can lead to information overload, which has a detrimental impact on the number of ideas provided by individuals. Through dyadic communication, solvers can improve their ideas and prevent possible discourse (Deng et al., 2016). For that reason, feedback in the form of comments among peers will be used in this study.

1.2 Research Purpose

Previous research (e.g., Chan et al. 2015) of firm and peer interaction focused on online crowdsourcing community sites, where consumers' participation and collective brainstorming are facilitated through idea crowdsourcing contests, which are more than just venues for customers to share their innovative ideas. The crowdsourcing communities are ongoing, with

individuals contributing comments and ideas on a regular and spontaneous basis based on their natural incentive to improve their social standing or expertise (Chan et al. 2015).

In the study published by Chan et al. (2015), the researchers investigated the firm's interaction as well as peer interaction in the form of feedback in the context of continuance crowdsourcing communities which is very different than in the context of ideation contests. According to Yang and Han (2021), users' behavior in online innovation communities may differ from that of participants in one-time contests, and this might result in various findings and innovative consequences. Thus, the impacts of peer and firm feedback on outcomes such as participant idea production cannot be translated from the setting of communities to ideation competitions. Therefore, it is crucial to investigate the firm's and peer's feedback effect on continuance participation intention in the context of ideation context.

Second, some research papers investigated the peer's and firm's feedback separately in continuance participation intention in an ideation contest, without measuring both peer's feedback as well as the firm's feedback effect on continuance participation intention in ideation contests (e.g., Wang et al., 2020; Hofstetter et al., 2018). Hofstetter et al., (2018) raise a concern in their research stating that given that participants in innovation contests frequently assess each other's performances, it would be interesting to investigate how different sources of feedback (from the company) could impact an individual's behavior in future contests. Consequently, it is necessary to investigate both peer feedback and firm feedback in ideation competitions in the same study in order to evaluate the effects and possible variations in the effects.

Thus, the purpose of this research is to close the research gap by investigating the effect of both firm's feedback as well as the peer's feedback in the form of comments in contributing to customers' continuance participation intention in ideation contests. Therefore, the main research question is:

What is the impact of feedback from both the firm and the peers on customers' intention to continue participating in future ideation contests?

The customers in this research paper refer to the external end users, who benefit from solving the company's problem and exclude the employees who are working at the specific company. Furthermore, an experiment is chosen as the research approach, because it allows for the discovery of causal relationships (Hair, 2019), which is relevant for this study. Because carrying out a real ideation contest would be outside the scope of this research, a hypothetical ideation contest is chosen.

The researcher decided to use a fictional furniture firm in order to minimize limited existing associations, either positive or negative, with the brand that may arise in the thoughts of respondents, which may otherwise unintentionally alter outcomes. The inspiration for the fictional company comes from the famous Swedish furniture brand Ikea. The furniture industry was chosen for research because it experiences intense rivalry, making innovation critical (Grzegorzewska & Wieckowska, 2016). Furthermore, IKEA is known for its crowdsourcing initiatives; in fact, according to (IKEA, 2021), the company created its product EKENABBEN with the help of students which resulted in flexible and adaptable furniture that suited the

students' needs. Moreover, in 2018 IKEA started a new crowdsourcing initiative called co-createIKEA, where the company invited many individuals to co-create goods and the forthcoming ranges (IKEA, 2017). So far, IKEA executed 40 co-creation projects where the company has focused on crowdsourcing initiatives where the customers and the company exchanged feedback either on social media, surveys, or at the stores. While ideation contests are a tool for enterprises to find answers to issues and collect new ideas for design and product improvements, they provide IKEA with an opportunity to achieve these aims.

The aforementioned study topic must be addressed; hence it is critical to look at the key aspects. The firm's feedback means the ways that the company facilitates and encourages the customers to submit their ideas by commenting on the participants' ideas and the feedback is usually in the form of comments (Seeber, et al., 2017). The peer feedback means the interactions among the customers on the online platforms by exchanging feedback and comments to increase the possibility of submitting new ideas. Those two concepts will be elaborated further in the next chapter.

1.3 Theoretical and Practical Relevance

This research fills the knowledge gap as well as offers insights into managerial implications. Some studies explored peer and firm feedback independently in continuance participation intention in an ideation contest (e.g., Wang et al., 2020; Hofstetter et al., 2018, Steils & Hanine, 2016), without examining the influence of combined peer and firm feedback on continuance participation intention in ideation competitions. Hofstetter et al., (2018) show curiosity about the implications of diverse feedback sources, such as peer and firm, on the solver behavior. Therefore, the theoretical contribution of this study is to fill the research gap by studying the influence of both company feedback and peer feedback in the form of comments on consumers' inclination to continue participating in ideation competitions.

As for the practical relevance of this study, understanding how firm's feedback and peer's feedback influence the continuance participation intention in ideation contests, managers can design the ideation contests in ways that will motivate the customers to submit their ideas in future ideation contests, which in return ensures the company is up to date with the customers' needs and wants. This is highly relevant for companies like IKEA as according to Inter IKEA Systems B.V. (2023), IKEA places a strong focus on co-creation and hosts them frequently. Moreover, the current study can inform managers about whether delivering company feedback is a worthwhile expenditure, or whether the presence of peer or firm feedback alone has a greater favorable effect than employing both types of feedback simultaneously.

1.4 Outline of the Thesis

The rest of this study is structured as follows: Following a review of previous research on consumer ideation in online communities, continuance intention, peer feedback as well as firm's feedback, the researcher provides the study's hypotheses and conceptual framework. Finally, the variables and data collection method are discussed in the chapter of methodology.

2. Literature Review

This research illustrates how consumers' social contacts with the company and their relationships with peers affect their continuance intention to participate in future ideation contests.

2.1 Ideation Contest

An ideation contest is usually a web-based platform where users submit their own ideas and designs as well as comment on the ideas and designs of other participants (Gatzweiler, et al., 2017). When the contest is over, firms treat the consumer with the greatest suggestion differently in terms of compensation. Examples include monetary and non-monetary rewards such as recognition from the competition's organizer or peers, or a license contract. Hence, competing for a prize is a component of the contest (Leimeister, et al., 2009).

There are many advantages of firms using ideation contests, one of the advantages is that ideation contests give businesses a simple and cost-effective way to tap into customers' innovative ideas (Jiang & Wang, 2020). Furthermore, the ideation contests not only assist in to produce new innovative ideas, but they also build word-of-mouth and a shared commitment to new products/services (Nabisan & Baron, 2007). Repeated interactions with customers via ideation contests can be valuable not just for producing new ideas, but also for keeping up with changes in customers preferences (Cui & Wu, 2017). However, companies must control both deviant contributions and unfavorable participant behaviors, since they may readily spread via social media and the press, resulting in poor word of mouth (Nohutlu, et al., 2022).

Moreover, an online ideation contest can provide a chance for a group of people to form a feeling of community. Contestants can remark on one other's contributions because ideation contests are held online. When this occurs, favorable associations between the participants and the presenter are formed. When individuals feel a feeling of community, autonomy, competence, and enjoyment in their work, the quality and quantity of their contributions will improve (Füller et al. 2011). Those are some of factors that influence the effectiveness of ideation contests. In this paper, the continuance participation intention will be researched under the effect of peer's and firm's feedback.

2.2 Continuance Intention

According to Bhattacharjee (2001), continuance intention is the degree to which customers intend to engage in a specific behavior. In the context of an ideation contest, the continuance intention can be defined as the willingness to participate in future contests of the firm (Wu et al., 2022). Research has shown that a good few crowdsourcing contest platforms suffer from a lack of persistent attention (Huang et. al, 2014). There are many reasons why the participants do not participate in the firm's future contests, one of them is the lack of incentives and the other one is the negative feelings (Hofstetter et al., 2018). The researchers Wu and Gong (2021) believe that in order to sustain crowdsourcing long-term success, continuance intention from the participants is needed. Studying characteristics that promote continued participation intention rather than initial participation intention in ideation competitions might thus give useful insights into how to build effective ideation contests over time and several times. In the literature, Wang et al. (2020) researched the motivation, trust, and fairness role on continuance

intention, and Hofstetter et al., (2018) researched in two different studies peer's feedback in the form of comments effect on continuance intention and firm's ratings as feedback on the continuance intention. However, there was no research done on the effect of both firm and peer feedback in the form of a comment on the continuance intention in ideation contests.

2.3 Feedback

According to the feedback intervention theory, feedback is defined as information that “confirms, adds to, overwrites, tunes, or restructures information in memory, whether that information be domain knowledge, meta-cognitive knowledge, attitudes about self and task, or cognitive techniques and strategies” (Winne & Butler, 1994). For ideation contests, it is considered feedback when the information provided is constructive and beneficial to the growth of the concept, and it is in response to a submitted concept that provides adjustments that may boost the likelihood of eventual acceptance (Finkelstein & Fishbach 2012; Harrison & Rouse 2015). Moreover, individual behaviors are influenced by feedback as it has the potential to help or impede task performance (Seeber et al., 2017). According to Feller et al., (2012), even though the participant's answer was not picked, the participants who received feedback felt rewarded for their participation. Furthermore, when feedback was lacking, participants felt frustrated and dissatisfied. In this research, the focus of feedback will be when it is given either by the firm and/or the peers to the participants of the ideation contest.

In the literature, feedback valence is researched, where the negative and the positive feedback's effects on the participants' responses (Chan et al., 2015). Furthermore, varied sources of feedback can elicit varied goal orientations, internal motivations, and reactions (Mehta et al. 2017). The responders' replies are determined by the feedback provider's authority and position. People, for example, take feedback from peers and superiors differently (Herold et al., 1987). In this research paper, the focus will be on studying the effect of peer and firm feedback on the participants' continuance intention in ideation contests. In the following paragraphs, peer's and firm's feedback potential impact on continuance intention in the context of ideation contests will be explained.

2.3.1 Peer's feedback in ideation contest

According to Seeber et al., (2017), in online contests, a solver may revise an idea based on other participants'/solvers' comments if the refinement brings the solver closer to the standard or aim of the concept contest. Koh (2018) refers to the solvers who compete in ideation contests as peers. Feedback is a tool for community members to interact with one another, and it is a social link that is established (Chan et al., 2015). Wang et al. (2020) illustrate how a lack of engagement can swiftly lead to solvers feeling uncomfortable due to a lack of communication and connection. However, feedback may either facilitate or impede the performance of the solver. The feedback affects the performance negatively when it focuses too much on the solver's persona rather focusing on the idea (Hildebrand et al., 2013). On the other hand, feedback that is aimed towards the task rather than the self, enhances task results (Moon & Sproull, 2008).

According to Seeber et al. (2017), most participants in online innovation contests do not know each other and have limited understanding of each other's personal characteristics, hence their

feedback is more likely to be directed towards the task than the person, which will result to focus attention on the idea. Furthermore, according to Chan et al. (2015), customers are more inclined to contribute their suggestions when there is a high level of peer interaction. Research also found that evaluations from peers rather than the company can influence involvement, which increases engagement and creative endeavor (Hofstetter et al., 2018). Furthermore, Steils and Hanine (2016) found that participants' participation again in future ideation competitions appears to be influenced by learning from their peers. The focus of this research paper will be on the feedback's existing effect on participation intention in future ideation contests. Therefore, the first hypothesis is as follows:

H1: The presence of peer feedback, positively affects the continuance intention.

2.3.2 Firm's feedback in ideation contest

According to Chan et al. (2015), firm feedback might contain both comments on participants' ideas and information about the firm's newest advances in goods or services. The company can provide emotional assistance to the participant. There is a lot of ambiguity for the participant in the early phases of the innovation process. Employees of the company can aid participants in dealing with a difficult scenario (Deichman et al., 2021). Organizations that engage with individuals—whether the environment is small groups, organizations, or contests—are likely to see higher levels of participation (Wooten and Ulrich, 2017). According to Hofstetter et al. (2018), feedback by the firm that was provided in prior ideation contests was found to strongly explain participation and creative effort in future contests. As a result of returning contestants who previously got feedback, the contest quality improves. Correspondingly, according to Baruch et al. (2016), communication and feedback are critical in retaining an interest in crowdsourcing. Another reason is that firm feedback fosters a sense of cooperation and competence among participants, as well as a sense of consumer ownership of the innovation among participants, resulting in a commitment from customers to contribute their ideas (Chan et al., 2015). On the other hand, the lack of feedback causes irritation to the solvers which may result in reducing the sense of community, which appears to be a driving incentive in many ideation contests (Lakhani et al., 2007).

The company may assist the participant by offering constructive feedback to help them better comprehend the work and the firm's objectives, as well as focusing on goal achievement, which boosts the participants' motivation and performance. On the other hand, the literature found that there is a difference in the results when negative feedback was given contrary to positive ones, the research states that care is advised because negative firm feedback may indicate a lack of support, criticism, and disapproval of the participants, which may deter them from participating (Chan et al., 2021). Furthermore, commenting activities allowed by interaction can boost value judgments, letting solvers feel a stronger feeling of belonging (Bayus, 2013). According to Hofstetter (2018), providing positive feedback to highly capable solvers helps to keep them motivated and ready for future contests. In this research, the effect of the existence of the feedback or the lack thereof on the continuance participation intention will be analyzed. Therefore, the second hypothesis is formulated as follows:

H2: The presence of firm feedback positively affects the continuance intention.

The effect of both peer and firm feedback on continuance intention has not yet been researched in the context of ideation contests. Because both peer feedback and firm feedback are predicted to have a positive influence on continuance intention, the combined effect of both variables is likewise expected to be positive. Therefore, the third hypothesis is formulated as follows:

H3: The presence of both firm and peer feedback positively affects continuance intention

2.4 Control Variable

Zare et al. (2018) discovered that earlier experience in ideation contests had a positive influence on continuance intention. It has been discovered to be an important predictor of an individual's future intention since the ambiguities and hazards of undertaking a task are reduced if the action has previously been completed. This is in line with what Wang and Wang (2019) found in their research paper, where a participant's prior experience in a contest lead to a post-perception of that event, which affected the participant's future intention.

Since this research paper is executed with the purpose of analyzing only the effects of peer and firm feedback on continuance intention, therefore prior experience is used as a control variable.

2.5 Conceptual Framework

This conceptual model (Fig. 1) demonstrates how consumers' social connections with peers (Peer feedback) and the company (Firm feedback), influence their continuance intention in future ideation contests, and controlled for prior experience.

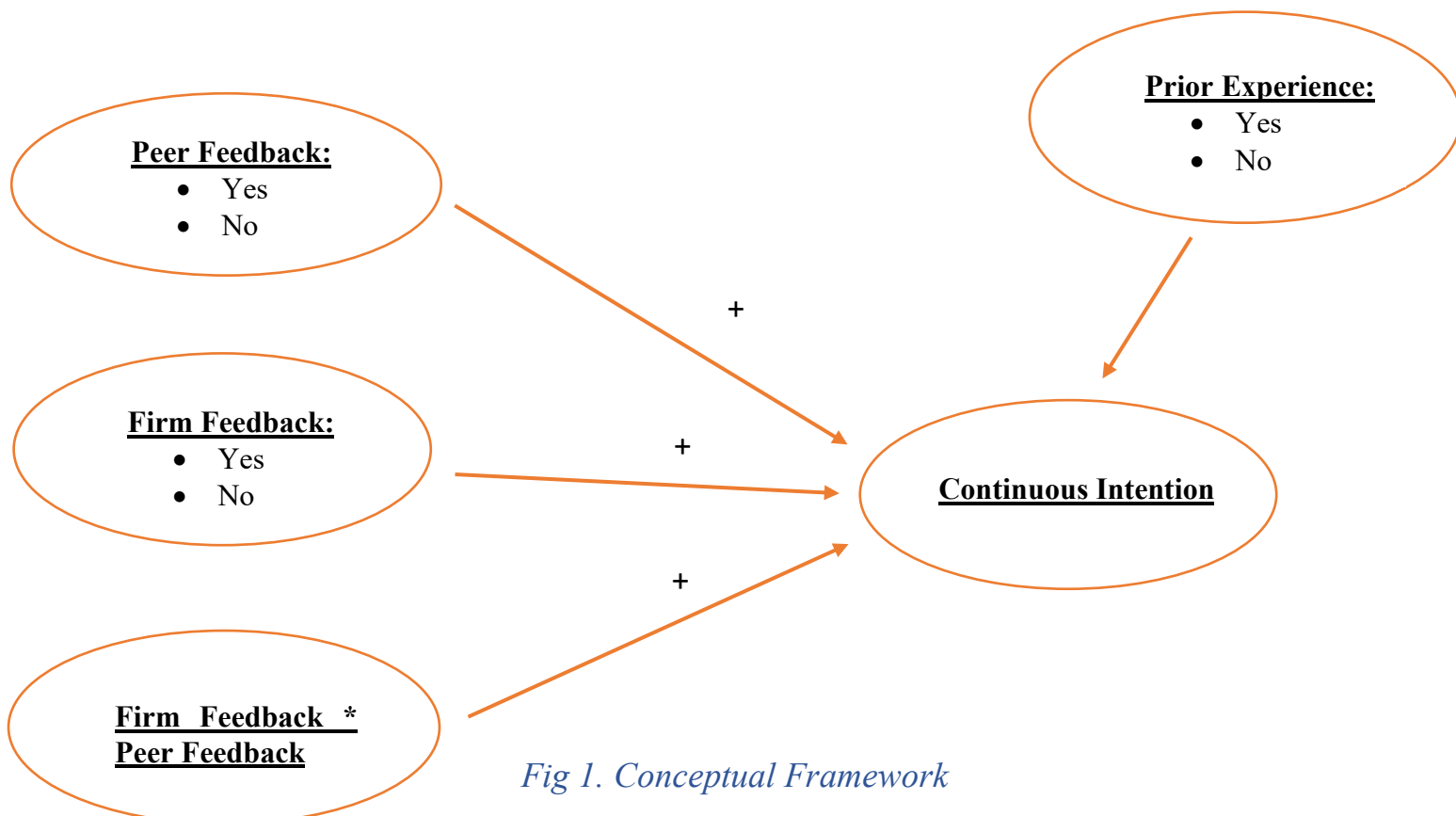


Fig 1. Conceptual Framework

3. Methodology

3.1 Research Method

To answer the main research question, quantitative research is chosen to be conducted because according to Bleijenbergh (2016), when quantitative research is conducted in a representative manner, it can yield insights about larger groups of people or the population as a whole. Therefore, the results of this study can be generalized to ideation contests. Furthermore, quantitative research allows to readily compare distinct groups (for example, by age, gender, or market) to determine similarities and differences. Moreover, one of the main objectives of quantitative research is to comprehend the relationship between an independent and dependent variable in a population (Hair, 2019).

There are many types of quantitative research and one of them is experimental research. This type of research approach uses a scientific method to establish a cause-effect link between a set of variables. It is typically characterized as a sort of study in which a researcher actively modifies, manipulates, and controls independent variables in order to examine the effect on the dependent variable (Field & Hole, 2003). It is suitable for this research paper as experiments help the researcher to investigate the causal relationship between peer, firm feedback, and continuance intention. For these reasons, experimental research is the appropriate type of quantitative research to conduct in this paper. Surveys are used to conduct the experimental research where the participants filled in the questions provided in the questionnaire ([Appendix A](#)). An online survey was chosen as the method of experimentation since it assured participant confidentiality and provided the necessary resources. The software Qualtrics was used to execute and distribute the survey to the participants.

3.2 Design

This study employs a two-by-two factorial design using hypothetical ideation contests as the two independent variables have two levels (feedback existence and feedback absence). The impacts of both factors can be explored concurrently using this method. In the experiment, respondents are subjected to one of four scenarios. One of the groups is the control group, where both firm's and peer's feedback is absent. That is because according to Field and Hole (2003) When a hypothesized cause is present, the control group serves as a benchmark against which to measure behavior. The cause in this situation would be the presence of the firm's and/or the peer's feedback which would lead to different behaviors toward the intention to participate in future ideation contests.

Thus, a group is presented with only peer feedback, another group is presented with only firm feedback, the third group is presented with both peer and firm feedback (the interaction effect), and the fourth group is the control group where the respondents are given a scenario where the peer's and firm's feedback are absent. The experiment is conducted in order to measure the participation intention of the respondents in the ideation contest.

		Peer Feedback	
		No	Yes
Firm Feedback	No	Control group (No Feedback)	Peer Feedback Receiver
	Yes	Firm Feedback Receiver	Both Feedback Receiver (Firm and Peer)

Table 1. Experimental Design

As it can be seen in Table 1, the experiment in this study was designed as a between-subjects design. As a result, each participant encounters just one level of the independent variable (Bell, 2009). Qualtrics guarantees the randomization of separating the participants into four equal groups. Following this randomization, each participant is subjected to the relevant condition.

The respondents were reached out with the surveys where they were thanked in advance for participating in the experiment and informed about the research in an introductory text, where the concept ideation contest is briefly explained as well as the purpose of the research, ([Appendix A](#)). the participants are thanked for their participation and informed that it is optional and may be discontinued. Moreover, the respondents are informed that the experiment is anonymous, and that the data is only utilized for research purposes.

Furthermore, the participants are informed that the experiment following that introduction is fictitious and they are presented with a scenario involving a fictional furniture company ‘De Meubelwinkel’. The reason why the decision was made to make the brand fictional, is to avoid limited existing connotations with the brand that rises in the minds of the respondents, which may otherwise accidentally impact outcomes. Moreover, a fictional name is given instead of naming it Company X for example, to make imagining the scenario for the participants as easy and as realistic as possible

The introduction ends with a question that must be answered and that is the consent question to participate in the survey as well as being above 18.

3.2.1 Scenario

Since this research is planned based on a two-by-two factorial design, then four scenarios are created. The participants in the four groups received the same single generic written scenario. The situations in which groups get peer or firm feedback include an additional phrase about the feedback, and examples of feedback in the form of comments are provided for all the scenarios except the scenario for the control group since the feedback is absent there. Thus, every situation is the same, except for the statement about the feedback. This is done to eliminate any potential effect other than the feedback happening because of the differences in the scenarios.

The feedback comments are added to the scenarios to help the participants feel they are in an actual ideation contest as much as possible. Moreover, the feedback comments are inspired by

the research paper written by Chan et al. (2015), where they used feedback comments provided by the firm and their peers.

Scenarios have all four situations in [Appendix A](#). The questions are asked after the scenario. First, participants are asked to give their consent to participate in the ideation contest. Following that, a manipulation check is performed. By adding the manipulation check, the researcher can determine whether the manipulation was correctly perceived by the participant (Hair et al., 2019). Participants in this study are asked which feedback they perceived.

Following the manipulation check, an attention check is added to help the researcher screen out the respondents who are not paying attention to the questions. The attention question is inspired by Rosenzweig, (2022). Afterward, the respondents will be asked to answer the questions that will assess the influence of the independent variable on the continuance intention. Upon completion, the respondents will be required to answer generic information such as age, gender, nationality, and the greatest level of schooling attended. The questionnaire is attached in [Appendix A](#).

3.2.2 Measurements

Both independent variables in this study have nominal levels where the participants are provided with peer feedback or firm feedback or the absence of either/both firm and peer feedback. The dependent variable, continuance intention, is assessed by modifying Wang et al. (2020), Jiang et al. (2021), and Roca et al.'s scales (2006). All the existing research items were adjusted to meet this research context. As a result, the following items are produced:

- I intend to continue participating in the ideation contests of 'De Meubelwinkel'
- My intentions are to continue participating in the ideation contests of 'De Meubelwinkel' rather than in the ideation contests of other firms
- I plan to continue to participate in the ideation contests of 'De Meubelwinkel' in the future
- I will participate in the ideation contests of 'De Meubelwinkel' on a regular basis in the future
- I intend to continue participating in the ideation contests of 'De meubelwinkel' rather than discontinue the participation

The items were measured by using on five-point Likert scale where 1 indicates strongly disagree and 5 strongly agree.

The procedure ANOVA was used on SPSS to analyze the collected data, where the effects of the two independent variables on the one dependent variable were examined.

3.2.3 Participants

It is anticipated that age, gender, nationality, and degree of education would have an impact on the study's findings. As a result, it is critical that the sample reflects a diverse audience. External validity would improve in this manner (Hair, 2019). At the same time, participants with only Dutch nationality were included and thus the survey was performed in Dutch since only respondents of Dutch nationality were included in the sample. That is in order to prevent measurement biases caused by translation errors. To distribute the survey, the researcher used

mostly her own network as well as those of friends and family members based in The Netherlands. This is called convenience sampling, to contact as many people as possible to participate in the study due to time constraints and a lack of funding resources (Emmerson, 2015). Moreover, the survey is conducted in Dutch. The age of the participants that will participate in the survey will include ages above 18 for legal purposes.

The survey was distributed via WhatsApp, Instagram, and LinkedIn. SurveyCircle was used as well to distribute the survey in order to reach as many people as possible in a short timeframe. The platform assists researchers to find the appropriate participants by choosing the desired demographics (SurveyCircle, 2023)

A sample is taken from the entire population. Sample size criteria must be satisfied in order to generalize results. According to Hair et al. (2019), the rule of thumb for ANOVA sample size is 30 respondents per group. Because this study included four scenarios, a total of 120 respondents are required. But, in order to boost practical effect and substantive viewpoint, 20 additional respondents were planned to be included.

Between the 30th of April and the 17th of May 2023, 310 responses were collected. In all, 210 questionnaires were fully answered out of all replies. Participants who did not have Dutch nationality were removed from the sample because the study's primary emphasis is on those with Dutch nationality. Furthermore, some individuals who did not correctly answer the attention check question were eliminated from the research, leaving it with 198 participants. People who responded to the manipulation check with "strongly disagree" or "disagree" were also excluded from the research (the manipulation check will be extensively discussed further in this chapter). Leaving the study with 165 valid replies for further investigation.

The majority of respondents were between the ages of 18 and 25 (49.7%), followed by those between the ages of 26 and 35 (20.6%). The largest percentage of participants were female (58.8%). Furthermore, the great majority of the sample (84.2%) was highly educated, indicating that the participants had previously attended or are now attending a university of applied science or university. Moreover, a small minority of the participants did participate in an ideation contest before (18.8%)

3.2.4 Pre-test

In order to ensure the research's validity and improve the quality of the survey, a translation check and then three pre-tests of the survey were sent out. After translating the survey, it was sent out to one participant to double check the translation, which indicated that the survey was clear regarding the language and the grammar. The first pre-test was sent out to 7 participants in which the participants received different scenarios from Qualtrics. The participants were asked if the scenarios felt realistic and easy to imagine. Based on the feedback received, minor changes were made regarding the content of the scenarios. Another pre-test was sent out to different 6 participants, to ensure that the survey's content is clear, and the scenarios are easy to imagine. Based on the feedback received, the items of the manipulation check were modified to make it easier to comprehend. The Final pre-test was sent out to 3 participants with the new modifications to ensure that the survey was complete and ready to be sent out. The feedback

was positive regarding the scenario being realistic and easy to imagine. In total, the pre-tests were sent out to 17 participants and based on their feedback, changes were made.

3.3 Manipulation Check

A manipulation check is a variable(s) measuring whether the respondent accurately comprehended the manipulation, moreover, successful manipulation checks assist to confirm that the cause of the findings is the treatments themselves, rather than their execution. (Hair, 2019).

To ensure that the manipulation occurred as planned, all the participants were asked if the scenario felt realistic. Participants had five choices to choose from 1. Strongly disagree/Volledig mee oneens, 2. Disagree/Oneens, 3. Neutral/Neutraal, 4. Agree/Eens, 5. Strongly agree/Volledig mee eens. The control group received only this question since no feedback was presented there.

The three other groups received more questions regarding the feedback they received. The group that got the firm's feedback was presented with two more additional questions other than the scenario feeling realistic. These two questions were:

- The scenario feels realistic
- I can imagine how the feedback is given in the online ideation contest
- I am aware that I have had feedback from 'De Meubelwinkel'

The group that got the peer feedback was presented with the following question:

- The scenario feels realistic
- I can imagine how the feedback is given in the online ideation contest
- I am aware that I have had feedback from the other participants

And the group that received both firm and peer feedback had all four questions:

- The scenario feels realistic
- I can imagine how the feedback is given in the online ideation contest
- I am aware that I have had feedback from the other participants
- I am aware that I have had feedback from 'De Meubelwinkel'

The statement "I am aware that I have had feedback from 'De Meubelwinkel'/other participants" was deemed to be the most relevant statement out of the three (this statement combines the third and fourth statements together). The reason behind choosing this statement is that it explicitly asks the participants if they got feedback from either of the sources, which is the subject of this research. During the analysis, it was assessed if participants failed the manipulation check or not. According to Hair et al. (2019), participants who fail the manipulation check are excluded from the survey as it means either they did not perceive the manipulation check correctly or it did not work for them.

As a result, if a respondent indicated "strongly disagree" or "disagree", it was presumed that they were not able to identify feedback given from the source and hence failed the manipulation check. Another round of exclusion was conducted, where a composite score of the responses

on the 4 statements had been used as an indicator for the exclusion. The threshold of the exclusion was 3. Meaning that participants who answered “neutral”, “agree” and “strongly agree” were not excluded. The choice to make threshold 3 is to maintain the sample size of the groups as large as feasibly possible. In addition, neutral is not the same as disagree or strongly disagree, that is why this threshold was chosen.

3.4 Analysis

The statistical software platform IBM SPSS Statistics (26th version) is used to conduct the analysis for this study. After data collection, it is exported from Qualtrics and entered into SPSS. The dataset is cleaned, and any participant data that is incomplete or incorrect is removed from the research. Furthermore, reliability tests are conducted to guarantee that the structures may be used to further analyze the data.

3.5 Validity & Reliability

Certain procedures may be used to assure the validity and trustworthiness of a research endeavor. In terms of validity, this entails measuring what the measurement instrument is designed to measure (Field & Hole, 2003). The construct was measured using pre-existing instruments that measured comparable items in this research. First, a translation check was performed on the items to ensure that the Dutch translation is understood in the same way as the original English items. The Dutch version of the dependent variable and its items were sent out to a native Dutch speaker, who was instructed to translate these into English. The translation was then compared to the original English items. There were no changes made to the Dutch translation since the phrasing and meaning of the Dutch native and the original items were so identical. As a result, it was expected that survey respondents would grasp the items in Dutch as intended.

Moreover, before distributing the survey, the pilot version was sent to a sample of the population in order for the researcher to make sure that the questions and the intentions behind the questions are understandable, which ensures to test the validity of the survey. Furthermore, the manipulation check question was formulated in order to ensure internal validity as advised (Hair et al. 2019)

As for the reliability, Cronbach’s alpha was conducted to assess the scale used to measure the dependent variable. According to Hair et al. (2019), the scale is reliable when the value of Cronbach’s alpha is at least 0.7.

The scales used to measure the dependent variable were subjected to a reliability study to see whether the remaining items included a large degree of useful variance in the results. The reliability was assessed by calculating Cronbach's Alpha for each item in the final factors. The Cronbach's alpha critical threshold is 0.7 (Hair et al., 2019).

Appendix C contains the SPSS output for the reliability analysis, which is where the results for this paragraph come from. The Cronbach’s alpha for the dependent variable continuance intention which has five items is $\alpha = 0.85$, according to Hair et al. (2019), it is a good indicator that the scale is highly reliable across the items. Looking at each item individually, it appears

that none of the items would systematically increase Cronbach's Alpha if the item was eliminated. Therefore, it was determined to keep the five items.

According to Hair et al. (2019), face validity refers to the researcher's assessment of whether the content of items fits the concept well. The following two items were based on Wang et al. (2020) study:

I intend to continue participating in the ideation contests of 'De Meubelwinkel'

My intentions are to continue participating in the ideation contests of 'De Meubelwinkel' rather than in the ideation contests of other firms

This study researched the interactivity and fairness effects on continuance intention in crowdsourcing contests. The items were modified to suit the study by changing the terminology to ideation contest and adding the fictional company's name.

The items "I plan to continue to participate in the ideation contests of 'De Meubelwinkel' in the future" and "I intend to continue participating in the ideation contests of 'De Meubelwinkel' rather than discontinue the participation", were based on Jiang et al. (2021) study, where the research focused on the sustainability of the microtask platforms by analyzing the effects of compensation, enjoyment and micro time structure on the continuance intention of the micro workers. The items were modified to suit this research paper.

Finally, the item "I will participate in the ideation contests of 'De Meubelwinkel' on a regular basis in the future" was based on the study done by Roca et al. (2006). This study researched the reasons behind the continuance intention for e-learning. As with the other items, this item was also customized to suit this research paper.

3.6 Ethics

To ensure that the research is conducted ethically, certain steps were followed. Firstly, the participants were informed of the research purpose, and the researchers as well as the university were introduced in the introduction of the survey. This was done to provide openness and transparency to the participants. Furthermore, the confidentiality of the respondents is ensured as well as their right to be anonymous. Moreover, the participants were briefed that their participation is voluntary, and consensual and that they had the right to withdraw from the study at any time. Participants did not have to disclose any personal information that exposed their identity in this study, such as their name, or address. Finally, the participants were informed that the data is used only for academic purposes.

The data gathered from the survey was exclusively utilized for this research analysis. Furthermore, the information will not be made public. At best, it might be made available to the researcher and those participating in the study. Finally, the participants were not provided a lot of background information about the other experimental groups. This was done to avoid bias in the responses provided by respondents.

3.7 Data Analysis

This section focused on what happened after the data is collected. The hypotheses are tested by using ANCOVA. To put this into effect, data was collected initially through an online survey,

with participants separated into four groups, each representing one of the four experiments. The data was obtained through Qualtrics. The obtained data was then entered into IBM SPSS Statistics 26.0 (abbreviated SPSS), a data analysis software application. Data preparation was completed before the analysis in SPSS could begin. It indicates that labels were put to each item in this dataset such that it was clear which item belonged to which construct. Following that, the various components were placed in the right manner for analysis. Finally, the assumptions of a 2x2 factorial ANCOVA were confirmed, and the ANCOVA was ran. The findings will be given in chapter four.

4. Results

The findings are provided in this chapter. First, the data preparation is explained. Second, the experimental groups are compared to control groups, then the experimental groups are compared to each other, and their descriptive statistics are examined. The influence of feedback on continuance intention is next investigated. Finally, several further analyses are discussed.

4.1 Data Preparation

First, the data was transferred from Qualtrics to SPSS. There appeared to be certain items in the data overview list that were unnecessary to preserve, and they were eliminated since they were not related to the study and/or threatened the respondents' privacy/anonymity. Such as IPAdress, Duration in seconds, RecordedDate, LocationLatitude, and LocationLongitude. Second, the raw data lacked clarity in terms of names and labels, so after certain respondents and variables were removed, names and labels were assigned to each variable in order to properly organize the data. Furthermore, the right measurement levels were assigned to the scales. Next, the dataset is cleaned, and any participant data that is incomplete or incorrect is removed from the research. As was pointed out in the previous chapter, the final sample was left with 165 valid responses. Out of the 165, 97 women and 67 men filled in the survey.

4.2 Outliers

The data outliers were examined. Outliers are extreme data points from individual respondents that differ significantly from other data points in a given sample (Hair et al., 2019). In [Appendix D](#) shows the outliers analysis of the dependent variable. One outlier was found in the group that received the scenario with the peer feedback. The other groups had no outliers. As a result, while performing the analysis, this was taken into consideration, as outliers might have a detrimental impact on the study's conclusions (Hair et al., 2019).

4.3 Effect of feedback on continuance intention

In order to analyze if the feedback given by the peers or the firm has an effect on the continuance intention of the customers to participate in future ideation contests of the firm, an ANOVA analysis is conducted. Prior to executing the ANOVA, assumptions about the sample, normality of sampling distribution of means, independence of errors and scores, and variance homogeneity must be satisfied (Hair et al., 2019).

To begin, ANOVA assumptions were tested by taking into analysis the outlier and the prior experience. In order to ensure the independence of the observations, all participants were randomly allocated to either the experimental group or the control group. Because Qualtrics assigned this question at random, it is safe to presume that all participants completed the survey independently of one another. This assumption is therefore satisfied.

Second, Levene's test was used to evaluate the assumption of homogeneity of variance. According to Hair et al. (2019), the dependent variable's variance must be equal across all subpopulations, and to have that, Levene's test should be insignificant.

In this analysis, Levene's test was significant ($F(7, 157) = 2.081$ $p = 0.049$). However, according to Field (2017) If the result of the biggest group size divided by the smallest groups

size does not exceed 1.5 times, then that means the group sizes are similar plus the sample number is big, thus it is not a big problem with the Levene's test being significant.

Third, the assumption of the dependent variable being normally distributed had to be met. Because the sample sizes in each group exceed the required minimum of 30, it is reasonable to infer that the dependent variable is normally distributed. The assumption of independence of errors was met as it can be seen in the P-P Plot where error terms are normally distributed and thus the error terms are uncorrelated.

Since the prior experience is insignificant $p = 0.186$, therefore, it is decided to remove the prior experience and run an ANOVA analysis without it.

The assumptions of ANOVA of the sample, normality of distribution, independence of errors and scores, and homogeneity of variance are as well accepted without the prior experience (see [Appendix F](#)). However, the independent variable (peer feedback, firm feedback) as well as the interaction effect are insignificant. Therefore, it is decided to remove the outlier and rerun the ANOVA analysis without the prior experience and without the outlier.

When ANOVA assumptions are tested, Levene's test was found to be significant, however, like the normality of the distribution analysis, because the sample group is big then those assumptions plus the assumptions of the independence of errors and scores are met.

Since ANOVA assumptions are met, ANOVA analysis was run. As can be seen in Table 2, the interaction effect of peer and firm feedback became significant after excluding the outlier and the prior experience $p = .047$ with $\text{Eta}^2 = .024$. The interaction of the independent variables has an effect on the continuance intention of the customers in future ideation contests of the firm. However, the interaction effect size is rather small, as according to Field (2017), if the eta^2 is 0.01 then it is a small effect and if the eta^2 is 0.06 then it is a medium effect.

	F	P-VALUE	PARTIAL ETA
	STATISTICS		SQUARE
CORRECTED MODEL	2.762	0.044	0.49
FIRM FEEDBACK	0.509	0.447	0.003
PEER FEEDBACK	3.657	0.058	0.022
FIRM FEEDBACK*PEER FEEDBACK	4.001	0.047	0.024

Table 2: ANOVA excluding the outlier and previous experience

4.3.1 Hypothesis 1

H1: The presence of peer's feedback, positively effects the continuance intention.

The first hypothesis is concerned with the effect of the peer feedback's presence on the continuance intention. It was expected to have a positive effect on the dependent variables. It was found in the analysis that the peer feedback was insignificant ($F = 3.657$ $p = 0.058$). However, since the p-value is very close to 0.05, this means the result is marginally significant, which means that there is impact of peer's feedback on continuance intention. Therefore, it can be concluded that this hypothesis is marginally accepted.

4.3.2 Hypothesis 2

H2: The presence of firm feedback positively effects the continuance intention.

The second hypothesis is concerned with the effect of the firm feedback's presence on the continuance intention. Here was also expected a positive effect on the dependent variable. However, it was found that the firm feedback was statistically insignificant ($F = 0.509$ $p = 0.477$). Therefore, this hypothesis is rejected.

4.3.3 Hypothesis 3

H3: The presence of both firm and peer feedback positively effects continuance intention.

The final hypothesis is concerned with the effect of both peer and firm feedback's presence together on the continuance intention. It was expected that the feedback from both the firm and the peers would have a positive effect on continuance intention. The expectation was met, where the interaction effect was found statistically insignificant ($F = 4.001$, $p = 0.047$). Thus hypothesis 3 is accepted, although the effect of the interaction is small on continuance intention ($\text{Eta}^2 = 0.024$). It is important to note that when firm feedback was provided alongside peer feedback, the effect was not larger than when peer feedback was present but firm feedback was absent ($p = .368$). As shown in Table 3, the mean score of continuance intention when both peer and firm feedback were present was lower ($M = 3.13$) than when only peer feedback was present ($M = 3.28$).

Sources of Feedback		Mean	Standard Deviation
No Firm Feedback	No Peer Feedback	2.83	.79
	Peer Feedback	3.28	.54
Firm Feedback	No Peer Feedback	3.14	.76
	Peer Feedback	3.13	.82

Table 3. Mean Scores of Continuance Intention of the Groups

4.4 Additional Analysis

To extract further information from the data, the original model was run again adding age as a covariate. Including age as a covariate might increase the model's accuracy. Furthermore, the features of the experiment's population are examined in order to get insight into how people of various age groups, genders, and education interpret peer and firm feedback and its influence on continuance intention.

4.4.1 Base Model with Gender

The first exploratory study was repeating the factorial ANOVA with the extra control variable "gender". Women may be more positively affected by feedback which leads to their willingness to continuance participation in future ideation contests of the firm, though this is not theoretically supported.

Because all of the assumptions were satisfied, the model with the control variable could be examined. The effect of gender on continuance intention was statistically insignificant ($F = 0.165$ $p = 0.848$). Therefore, it is concluded that gender had no effect on interpreting peer and firm feedback. Logically, adding gender as a control variable kept the results the same for the independent variables and the interaction effect, meaning the interaction effect still had significant effect on continuance intention $p = 0.046$, peer feedback stayed statistically insignificant $p = 0.057$ and firm feedback as well $p = 0.430$

4.4.2 Base Model with Age and Education as Control Variables

To examine the results more closely for the research population, the factorial ANOVA was repeated for the additional categorical demographic variables: age and educational level. During testing the ANOVA assumptions with these demographic factors included, the normality assumption was not met, therefore an ANOVA test could not be done.

5. Discussion

The aim of this study was to find out whether the existence of the peer and/or firm's feedback had an effect on the continuance intention of the customers to participate in future ideation contests of the firm. Therefore, the research's main question was: *What is the impact of feedback from both the firm and peers on customers' intention to continue participating in future ideation contests?*

This was tested by creating an experiment including four types of scenarios where a group received no feedback (the control group), the second group received only feedback from the firm, whereas the third group received feedback only from their peers and the final group received feedback both from the peers and the firm.

This experiment allowed the researchers to check if differences exist among the groups that received feedback and the group that did not. It also allowed to compare if there are differences among the groups that received feedback from the two different sources. This chapter begins with a discussion and then moves on to the study's findings. The practical and managerial implications are then discussed. Finally, the chapter will discuss the research limitations as well as future research.

5.1 Discussion and Conclusion

Hypothesis 1 predicted that the peer's feedback will have a positive effect on the continuance intention. After conducting the analysis, it appears that peer feedback alone has marginally significant effect on continuance intention. This result is in line with the previous literature and research conducted by Steils and Hanine (2016), in which they found that interaction with peers affected the solvers' continuance intention as they may want to apply what they learned in future contests.

In Hypothesis 2 it was predicted that the firm's feedback to have a positive impact on the continuance intention. However, after conducting the analysis, it appears that firm feedback alone has no significant effect on continuance intention. This is contrary to what Hofstetter et al. (2018) found, which is the firm in that research paper had an effect on the continuance intention.

A possible reason why the results of the second hypothesis is different than previous literature is that this research paper is the first to conduct a quantitative analysis combining peer and firm feedback. While the research by Hofstetter et al. (2018) researched only the firm's feedback effect on continuance intention, Wu and Gong (2021) researched only the peer's feedback effect on continuance intention. Steils and Hanine (2016) researched qualitatively the effect of peer and firm feedback on continuance intention. Moreover, most of the participants in this research were among the age range 18-25 which is Generation Z and who is considered to prefer networks over hierarchical communication (Arar et la., 2015). This could explain why firm's feedback had no significant effect on continuance intention in this research paper. More explanation of the age range's effect on the results is provided further in this chapter.

On the other hand, Hypothesis 3 where the interaction effect of both peer feedback and firm feedback, was expected to have a positive effect based on the previous two hypotheses. The

analysis found a significant effect of the interaction effect. Meaning that when it comes to describing the intention to continue, both sources interact with and rely on one another. When firm feedback is lacking in ideation contests, peer feedback has still an essential effect in increasing a customer's continued intention to participate in a future ideation contest. When both types of feedback are available, however, the intention to continue is not significantly different than when just peer input is present. Meaning that customers' intentions to participate in future 'De Meubelwinkel' ideation contests who got feedback from their peers and from the firm were not statistically different from those who received peer feedback but not firm feedback. This implies that the availability of company feedback does not boost consumers' long-term desire to participate in the business's future ideation competitions.

An explanation of why the presence of firm feedback did not have a significant impact, whereas the presence of peer feedback did have a significant impact on the participants' intention to continue participating in ideation contests, is that the younger generation especially Gen Z prefers less hierarchical communication (McCrinkle Research, 2019) since most of the participants in this research paper were between the ages 18-25. Therefore, peer feedback would have more effect on their continuance intention to participate in the firm's future contests than the firm feedback.

Moreover, Gen Z is more linked to their peers and less concerned with brand loyalty; also, they seek peer input, such as likes and comments, to earn approval and recognition from their peer group (Goldring & Azab, 2021). This could be another explanation of how the results were influenced by the largest age group in this study.

Hypothesis	Results
<i>H1: The presence of peer's feedback, positively affects the continuance intention</i>	Marginally Accepted
<i>H2: The presence of firm feedback positively affects the continuance intention.</i>	Rejected
<i>H3: The presence of both firm and peer feedback positively affects continuance intention.</i>	Accepted

Table 4. Results Summary

Furthermore, the additional analysis shows that gender had no statistically significant impact on peer neither firm feedback's effect on continuance intention on ideation contests. Since the other demographics did not meet the normality assumption, ANOVA was not conducted.

To conclude and to answer the research question, separately firm and peer feedback have no significant effect on continuance intention of the participants. However, the interaction between both feedback sources does have positive effect on continuance intention. This implies that the impact of one sort of feedback on continuance intention is dependent on the presence or absence of the other. To say anything about the influence of one sort of feedback, the

presence of the other must be considered. In addition, since peer feedback's effect was higher than the firm's feedback on continuance intention, companies should emphasize the presence of peer feedback in ideation contests in order to receive the greatest continuance intention in future ideation contests.

5.2 Theoretical Contributions

This study is the first to investigate the effects of peer feedback and firm feedback on continued intention to participate in future ideation contests in the same study, allowing the effects to be compared and how the peer and firm feedback interact in terms of their effects. Until now, researchers such as Hofstetter et al. (2018), Wu and Gong (2021), and Jiang & Wang, 2020 have only explored peer and firm feedback in isolation in various studies and contexts.

In this study, both peer and firm feedback effects were analyzed on the continuance intention in an ideation contest. According to this study, there was a significant interaction effect between peer and firm feedback, and the main effect of each independently was not significant on the continuance intention. These findings increase the importance of the current study because the two forms of feedback had not previously been explored together but revealed that they cannot be understood in isolation in terms of their influence on future intention to participate in the firm's ideation contests.

5.3 Managerial Implications

Even though peer and firm feedback on their own did not provide significant results, the interaction effect of both peer and firm feedback was significant. On the other hand, when feedback from the firm is lacking, the availability of peer feedback has been found to be an important element. If companies choose not to give feedback, it is critical to construct the ideation contest such that peers still can provide feedback in order to boost the firm's customers' continued intention to participate in future ideation contests. This is because the study found that when both forms of feedback were removed, customers' intentions to engage in future competitions were lower than when just firm feedback was absent and peer feedback was present. This is a great insight for marketing managers to take into consideration when designing the company's ideation contests in order save up in costs and to guarantee the continuance intention to participate in ideation contests.

5.4 Research Limitations and Future Research

There are some drawbacks to this study. First, consider the scenario itself. Although the scenarios were meant to be as accurate as possible in reflecting genuine ideation contests, the comparison of this study to real-life ideation contests is questionable. The conditions under which the subject was exposed to the ideation contests differed significantly from a real-life scenario in which a person might come across a similar contest. Experiment was decided to be used in the research due to the lack of time and resources. However, future research could be conducted while a real-life ideation contest is already running by the firm to see if there is a difference in the findings. Furthermore, the scenarios could have been more realistic by specifying the type of prize that the participants could win if they participated in the ideation contest. However, this was not done in this research paper in order to eliminate any additional influences other than the type of feedback that participants received.

Secondly, even though the interaction effect of peer and firm feedback on continuance intention was significant, the effect size is small. Therefore, the presence feedback alone explains very little about the continuance intention of the participants. Further research could include other factors that might affect continuance intention when designing experiments and researching ideation contests.

Thirdly, this study did not take into account the valence of the feedback which according to Hofstetter et al., (2018) can have an effect on future participation intention in ideation contests. Moreover, there are other types of feedback than comments which can have an effect if included in the research. The valence of the feedback was not taken into consideration due to the lack of time and resources to conduct the analysis. Future studies might look at the discrepancies among the feedback valence and their impact on continuance intention in future ideation contests of the firm.

Furthermore, the majority of the participants in this study were mostly in the age range 18-25 (49.7%). This can be explained by the fact that, due to resource and time constraints, the researchers employed their own social environment to collect respondents in this age category. These proportions of respondents by age group do not reflect the Dutch population as a whole. According to the statistics, the largest group is people aged 40 to 65, with a share of 33.2% in 2022 (CBS, 2022). Further research could take into account bigger age range to compare with the findings of this research paper.

Finally, the experiment was conducted entirely in the Netherlands, with just Dutch respondents. It is possible that culture influences the impact of feedback on continuance intention. It is an interesting topic to further investigate in future studies where the impact of peer and firm feedback on continuance intention is researched among different cultures.

Bibliography

- Arar, T., & Yüksel, I. (2015). How to manage generation z in business life. *Journal of Global Economics, Management and Business Research*, 4(4), 195-202.
- Baruch, A., May, A. and Yu, D. (2016), “The motivations, enablers and barriers for voluntary participation in an online crowdsourcing platform”, *Computers in Human Behavior*, Vol. 64 No. 11, pp. 923-931.
- Bayus, B. L. 2013. Crowdsourcing new product ideas over time: An analysis of the Dell IdeaStorm Community. *Management Sci.* 59 (1): 226 – 244.
- Bhattacharjee, A. (2001). Understanding Information Systems Continuance: An Expectation-Confirmation Model. *Management Information Systems Quarterly*, 25(3), 351. <https://doi.org/10.2307/3250921>
- Brass, Daniel J. (1995), “A Social Network Perspective on Human Resources Management,” in *Research in Personnel and Human Resources Management*, G. Ferris, editor. Greenwich, CT: JAI Press. 39–79.
- CBS. (2022). Bevolking; kerncijfers, 1950-2022. CBS. Retrieved June 7, 2023 from <https://opendata.cbs.nl/statline/#/CBS/nl/dataset/37296NED/table>
- Chan, K. W., S. Y. Li, J. J. Zhu. 2015. Fostering customer ideation in crowdsourcing community: The role of peer-to-peer and peer-to-firm interactions. *J. Interact. Market.* 31 : 42 – 62
- Chan, K. W., Li, S. Y., Ni, J. & Zhu, J. J. (2021). What Feedback Matters? The Role of Experience in Motivating Crowdsourcing Innovation. *Production and Operations Management*, 30(1), 103-126.
- Cui, A. S., and F. Wu. 2017. The impact of customer involvement on new product development: Contingent and substitutive effects. *Journal of Product Innovation Management* 34 (1): 60–80.
- Emerson, R. (2015). Convenience sampling, random sampling, and snowball sampling: How does sampling affect the validity of research?. *Journal of Visual Impairment & Blindness*, 109(2), 164-168.
- Faraj, Samer and Steven L. Johnson (2011), “Network Exchange Patterns in Online Communities,” *Organization Science*, 22, 6, 1461–80.
- Fang, Eric (2008), “Customer Participation and the Trade-off Between New Product Innovativeness and Speed to Market,” *Journal of Marketing*, 72, October, 90–104.
- Feller, J., Finnegan, P., Hayes, J., & O’Reilly, P. (2012). ‘Orchestrating’ Sustainable Crowdsourcing: A Characterisation of Solver Brokerages. *Journal of Strategic Information Systems*, 21, 216-232.
- Field, A., & Hole, G. (2003). *How to design and report experiments*. Sage.
- Field, A. (2017). *Discovering Statistics Using IBM SPSS Statistics*. SAGE.
- Finkelstein, S. R., A. Fishbach. 2012. Tell me what I did wrong: Experts seek and respond to negative feedback. *Journal of Consumer Research* 39(1) 22-38.
- Füller, Johann, Hans Mühlbacher, Kurt Matzler, and Gregor Jawecki (2009), “Consumer Empowerment Through Internet-based Cocreation,” *Journal of Management Information Systems*, 26, 3, 71–102.
- Füller, J., Hutter, K. & Faullant, R. (2011). Why co-creation experience matters? Creative experience and its impact on the quantity and quality of creative contributions. *R&D Management*, 41(3), 259-273.

- Gangi, D. P., Wasko, M. M., & Hooker, R. E. (2010). Getting Customers' Ideas to Work for You: Learning From Dell How to Succeed with Online User Innovation Communities. *MIS Quarterly Executive*, 9(4), 213-228.
- Gatzweiler, A., Blazevic, V., & Piller, F. T. (2017). Dark Side or Bright Light: Destructive and Constructive Deviant Content in Consumer Ideation Contests. *Journal of Product Innovation Management*, 34(6): 772-789.
- Goldring, D., & Azab, C. (2021). New Rules of Social Media Shopping: Personality Differences of U.S. Gen Z versus Gen X market mavens. *Journal of Consumer Behaviour*, 20, 884-897.
- Gruner, Kjell E. and Christian Homburg (2000), "Does Customer Interaction Enhance New Product Success?" *Journal of Business Research*, 49,1, 1-14.
- Grzegorzewska, E., & Wieckowska, M. (2016). Selected aspects of innovation in the furniture industry – empirical research findings. *Drewno*, 59(198). <https://doi.org/10.12841/wood/1644-3985.175.12>.
- Gu, Bin, Prabhudev Konana, Balaji Rajagopalan, and Hsuan-Wei Michelle Chen (2007), "Competition among Virtual Communities and User Valuation: The Case of Investing-related Communities," *Information Systems Research*, 18,1,68-85.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning EMEA.
- Harrison, S.H., E. D. Rouse. 2015. An inductive study of feedback interactions over the course of creative projects. *Academy of Management Journal* 58(2) 375-404.
- Herold, D. A., Liden, R. C., & Leatherwood, M. L. (1987). USING MULTIPLE ATTRIBUTES TO ASSESS SOURCES OF PERFORMANCE FEEDBACK. *Academy of Management Journal*, 30(4), 826-835. <https://doi.org/10.2307/256164>
- Hildebrand, C., Häubl, G., Herrmann, A., and Landwehr, J. R. "When social media can be bad for you: Community feedback stifles consumer creativity and reduces satisfaction with self-designed products," *Information Systems Research*, vol. 24 (1), 2013, pp. 14-29.
- Hofstetter, R., Zhang, J. H., & Herrmann, A. (2018). Successive Open Innovation Contests and Incentives: Winner-Take-All or Multiple Prizes? *Journal of Product Innovation Management*, 35(4), 492-517. <https://doi.org/10.1111/jpim.12424>
- Howe J. (2006) The rise of crowdsourcing. *Wired Magazine*, 14 (6), pp. 1-4. [https://sistemas-humano-computacionais.wdfiles.com/local--files/capitulo%3Aredes-sociais/Howe The Rise of Crowdsourcing.pdf](https://sistemas-humano-computacionais.wdfiles.com/local--files/capitulo%3Aredes-sociais/Howe%20The%20Rise%20of%20Crowdsourcing.pdf)
- Huang, Y., Vir Singh, P. and Srinivasan, K. (2014), "Crowdsourcing new product ideas under consumer learning", *Management Science*, Vol. 60 No. 9, pp. 2138-2159.
- IKEA (2021) Co-creation - listening to you to create better products. <https://about.ikea.com/en/life-at-home/co-creation>
- IKEA (2017) IKEA opens up to cocreate the future range with the world. <https://about.ikea.com/en/newsroom/2017/06/07/ikea-opens-up-to-cocreate-the-future-range-with-the-world>
- Inter IKEA Systems B.V. (2023). Co-creation – working with you to develop better products for life at home. IKEA. Retrieved February 13, 2023, from <https://about.ikea.com/en/life-at-home/co-creation>

- Jain, S., & Deodhar, S. J. (2022). Social mechanisms in crowdsourcing contests: A literature review. *Behaviour & Information Technology*, 41(5), 1080–1114. <https://doi.org/10.1080/0144929X.2021.1880638>
- Jiang, J., & Wang, Y. (2020). A Theoretical and Empirical Investigation of Feedback in Ideation Contests. *Production and Operations Management*, 29(2), 481–500. <https://doi.org/10.1111/poms.13127>
- Jiang, L., Wagner, C., & Chen, X. (2021). Taking Time into Account: Understanding Microworkers' Continued Participation in Microtasks. *Journal of the Association for Information Systems*, 22(4), 893–930. <https://doi.org/10.17705/1jais.00684>
- Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, 44(2), 544–564. <https://doi.org/10.1016/j.dss.2007.07.001>
- Kiran, B. S., & Sharma, R. (2021). Designing and Driving Crowdsourcing Contests in Large Public Service Organizations: Lessons from Deutsche Bahn and Indian Railways. *Research-Technology Management*, 64(3), 48–57. <https://doi.org/10.1080/08956308.2021.1891821>
- Koh, T. K. (2018). Use of seeker and peer feedback in ideation contests: An Anchoring effect perspective. *Thirty Ninth International Conference on Information Systems*.
- Lakhani, K. R., L. B. Jeppesen, P. A. Lohse, J. A. Panetta. 2007. The value of openness in scientific problem solving. Working paper 07-050, Harvard Business School, Boston, MA.
- Leimeister, J. M., Huber, M., Bretschneider, U., & Krcmar, H. (2009). Leveraging Crowdsourcing: Activation-Supporting Components for IT-Based Ideas Competition. *Journal of Management Information Systems*, 26, 197–224. <https://doi.org/10.2753/MIS0742-1222260108>
- Liang, H., Wang, M., Wang, J., & Xue, Y. (2018). How intrinsic motivation and extrinsic incentives affect task effort in crowdsourcing contests: A mediated moderation model. *Computers in Human Behavior*, 81, 168–176. <https://doi.org/10.1016/j.chb.2017.11.040>
- Liao, J., Chen, J. & Mou, J. (2021). Examining the antecedents of idea contribution in online innovation communities: A perspective of creative self-efficacy. *Technology in Society* 66, Article 101644. <https://doi.org/10.1016/j.techsoc.2021.101644>
- Lin, T., Wu, S. N., Hsu, J. W., & Chou, Y. (2012). The integration of value-based adoption and expectation–confirmation models: An example of IPTV continuance intention. *Decision Support Systems*, 54(1), 63–75. <https://doi.org/10.1016/j.dss.2012.04.004>
- McCrindle Research, (2019). Understanding Generation Z: Recruiting, Training and Leading the Next Generation.
- Mehta, R., D. W. Dahl, R. J. Zhu. 2017. Social recognition versus financial incentives? Exploring the effects of creativity-contingent external rewards on creative performance. *Journal of Consumer Research* 44(3) 536- 553.
- Moon, J. Y. and Sproull, L. S. "The role of feedback in managing the Internet-based volunteer work force," *Information Systems Research*, vol. 19 (4), 2008, pp. 494-515.

- Nambisan, S., & Baron, R. A. (2007). Interactions in virtual customer environments: Implications for product support and customer relationship management. (Article). *Journal of Interactive Marketing*, 21(2), 42–62, <http://dx.doi.org/10.1002/dir.20077> (John Wiley & Sons).
- Nohutlu, Z. D., Englis, B. G., Groen, A. J., Constantinides, E. (2022). Customer Cocreation Experience in Online Communities: Antecedents and Outcomes. *European Journal of Innovation Management*, 25(2), 630-659.
- Oh Wonseok and Sangyong Jeon (2007), “Membership Herding and Network Stability in the Open Source Community: The Ising Perspective,” *Management Science*, 53, 7, 1086–101.
- Roca, J. a. M., Chiu, C., & Venegas-Martínez, F. (2006). Understanding e-learning continuance intention: An extension of the Technology Acceptance Model. *International Journal of Human Computer Studies*, 64(8), 683–696. <https://doi.org/10.1016/j.ijhcs.2006.01.003>
- Rosenzweig, C. (2022). Examples of Good (and Bad) Attention Check Questions in Surveys. Cloud Research. <https://www.cloudresearch.com/resources/blog/attention-check-questions-in-surveys-examples/>
- Sawhney M., Verona, G., & Prandelli, E., (2005). Collaborating to create: The internet as a platform for customer engagement in product innovation. *Journal of Interactive Marketing*, 19 (4), pp. 4-17
- Seeber, I., Zantedeschi, D., Bhattacharjee, A., & Füller, J. (2017). The More the Merrier? The Effects of Community Feedback on Idea Quality in Innovation Contests. *Hawaii International Conference on System Sciences*. <https://doi.org/10.24251/hicss.2017.525>
- Steils, N. & Hanine, S. (2016). Creative contests: Knowledge generation and underlying learning dynamics for idea generation. *Journal of Marketing Management*, 32(17-18), 1647-1669. <http://dx.doi.org/10.1080/0267257X.2016.1251956>
- SurveyCircle. (2023) *SurveyCircle – The Largest Community for Getting Survey Responses | Join for Free & Find Participants*. SurveyCircle.com>. <https://www.surveycircle.com/en/>
- Sun, Y., Fang, Y., & Lim, K. H. (2012). Understanding Sustained Participation in Transactional Virtual Communities. *Decision Support Systems*, 53, 12-22.
- Terwiesch C., Xu Y. (2008). Innovation contests, open innovation, and multiagent problem solving. *Management Science*, 54 (9) (2008), pp. 1529-1543.
- Walczuch, Rita, Marcel Verkuijlen, Bas Geus, and Ursela Ronnen (2001), *Stickiness of Commercial Virtual Communities*. MERIT-Infonomics Research Memorandum Ser.
- Wang, M.-M., & Wang, J.-J. (2019). Understanding solvers’ continuance intention in crowdsourcing contest platform: An extension of expectation-confirmation model. *Journal of Theoretical and Applied Electronic Commerce Research*, 14(3), 17–33. <https://doi.org/10.4067/S0718-18762019000300103>
- Wang, M.-M., Wang, J.-J., & Zhang, W.-N. (2020). How to enhance solvers’ continuance intention in crowdsourcing contest: The role of interactivity and fairness perception. *Online Information Review*, 44(1), 238–257. <https://doi.org/10.1108/OIR-11-2017-0324>
- West J., Lakhani K.R. (2008). Getting clear about communities in open innovation. *Industry and Innovation*, 15 (2), pp. 223-231
- Winne, P and Butler, D. "Student cognition in learning from teaching," *International encyclopedia of education*, vol. 2, 1994, pp. 5738-5775.

Wooten, J. O., & Ulrich, K. T. (2017). Idea Generation and the Role of Feedback: Evidence from Field Experiments with Innovation Tournaments. *Production and Operations Management*, 26(1), 80–99. <https://doi.org/10.1111/poms.12613>

Wu, W., & Gong, X. (2021). Motivation and sustained participation in the online crowdsourcing community: the moderating role of community commitment. *Internet Research*, 31(1), 287–314. <https://doi.org/10.1108/INTR-01-2020-0008>

Wu, W., Yang, Q., Gong, X., & Davison, R. M. (2022). Understanding Sustained Participation in Crowdsourcing Platforms: The Role of Autonomy, Temporal Value, and Hedonic Value. *Information Technology & People*. Ahead of Print.

Yang, M., & Han, C. (2021). Stimulating innovation: Managing peer interaction for idea generation on digital innovation platforms. *Journal of Business Research*, 125, 456. <https://doi.org/10.1016/j.jbusres.2019.08.005>

Zheng, H., Li, D., & Hou, W. (2011). Task Design, Motivation, and Participation in Crowdsourcing Contests. *International Journal of Electronic Commerce*, 15(4), 57–88. <https://doi.org/10.2753/jec1086-4415150402>

Zare, S., Bettiga, D., & Lamberti, L. (2019). Does one design fit them all? Study of drivers of co-creation interest along different consumer segments. *Journal of Strategic Marketing*, 27(7), 630–650. <https://doi.org/10.1080/0965254x.2018.1464051>

Appendix A: Survey in English

Introduction text

Dear participant,

We are Svenja, Jebid, Sara and Maks, a group of four students in the Master's programme Marketing at Radboud University Nijmegen, Netherlands. As part of our master's thesis, we are conducting this survey. You are about to take part in a survey about an online ideation contest. In this contest, participants are given a task by a firm to come up with ideas about new products that could be developed by this firm. This will be done via the firm website. The information about the contest and firm is given in the next section. The contest is fictional, hosted by the fictional furniture company, called 'De Meubelwinkel'. After the information about the contest is given you will answer some questions, the survey will take approximately 5 minutes. We appreciate your time and participation in our survey.

Participation is voluntary and the results are processed anonymously. You are able to withdraw from participating in this survey at any time, without any consequences. If you have any requests, questions or comments, please send an email to maks.jansen@ru.nl. If you would like to be informed about the results of the survey, you can leave your email address at the end of the survey. Your information will be treated confidentially.

- You must be at least 18 years old to participate in this study
- I understand and agree to the processing of my answers
- I do NOT agree to the processing of my answers

Control Group:

Imagine yourself being in the following situation. You just participated and completed a task in an ideation contest hosted by 'De Meubelwinkel'. In the beginning of the contest you received the following description:

What are you missing in your home that is not in stores right now? Please provide us with ideas, so we can help you create the product you are missing! 'De Meubelwinkel'

is interested in creating new products and we need your help with this. Please use your skills and creativity to come up with new types of furniture that you still need in your home. After the contest ends, the participant who submitted the best idea will be rewarded with a prize.

Please indicate on a scale from strongly disagree to strongly agree to how far you agree with the following statement.

- The scenario feels realistic

Firm Feedback

Imagine yourself being in the following situation. You just participated and completed a task in an ideation contest hosted by 'De Meubelwinkel'. In the beginning of the contest you received the following description:

What are you missing in your home that is not in stores right now? Please provide us with ideas, so we can help you create the product you are missing! 'De Meubelwinkel' is interested in creating new products and we need your help with this. Please use your skills and creativity to come up with new types of furniture that you still need in your home. After the contest ends, the participant who submitted the best idea will be rewarded with a prize.

During the ideation contest you received feedback in the form of comments on your idea from 'De Meubelwinkel'.

These are examples of the feedback comments given by 'De Meubelwinkel' employees during the contest:

'Great idea! Our customers would love this product in their homes.'

or

'Unfortunately, it is impossible to produce the product with that material.'

Please indicate on a scale from strongly disagree to strongly agree to how far you agree with the following statements.

- The scenario feels realistic
- I can imagine how the feedback is given in the online ideation contest
- I am aware that I have had feedback from 'De Meubelwinkel'

Peer Feedback:

Imagine yourself being in the following situation. You just participated and completed a task in an ideation contest hosted by 'De Meubelwinkel'. In the beginning of the contest you received the following description:

What are you missing in your home that is not in stores right now? Please provide us with ideas, so we can help you create the product you are missing! 'De Meubelwinkel' is interested in creating new products and we need your help with this. Please use your skills and creativity to come up with new types of furniture that you still need in your home. After the contest ends, the participant who submitted the best idea will be rewarded with a prize.

During the ideation contest you received feedback in the form of comments on your idea from other participants.

These are examples of the feedback comments given by other participants during the contest:

'I really like your idea! I miss this in my home as well!'

or

'I don't like the design of the product. If I were you, I would definitely change it.'

Please indicate on a scale from strongly disagree to strongly agree to how far you agree with the following statements.

- The scenario feels realistic
- I can imagine how the feedback is given in the online ideation contest
- I am aware that I have had feedback from the other participants

Peer & Firm feedback

Imagine yourself being in the following situation. You just participated and completed a task in an ideation contest hosted by 'De Meubelwinkel'. In the beginning of the contest, you received the following description:

What are you missing in your home that is not in stores right now? Please provide us with ideas, so we can help you create the product you are missing! 'De Meubelwinkel' is interested in creating new products and we need your help with this. Please use your skills and creativity to come up with new types of furniture that you still need in your home. After the contest ends, the participant who submitted the best idea will be rewarded with a prize.

During the ideation contest you received feedback in the form of comments on your idea from 'De Meubelwinkel' and other participants.

These are examples of the feedback comments given by 'De Meubelwinkel' during the contest:

'Great idea! Our customers would love this product in their homes.'

or

'Unfortunately, it is impossible to produce the product with that material.'

These are examples of the feedback comments given by other participants during the contest:

'I really like your idea! I miss this in my home as well!'

or

'I don't like the design of the product. If I were you, I would definitely change it.'

Please indicate on a scale from strongly disagree to strongly agree to how far you agree with the following statements.

- The scenario feels realistic
- I can imagine how the feedback is given in the online ideation contest
- I am aware that I have had feedback from the other participants
- I am aware that I have had feedback from 'De Meubelwinkel'

Attention Check:

- Who was hosting the fictional ideation contest in the scenario you just read?
 - De Meubelwinkel
 - The dentist
 - The hairdresser
 - the supermarket

Continuance Intention:

In the following you will be asked to rate your intention to continue to participate in future ideation contests of 'De Meubelwinkel' based on the scenario you read earlier. Please indicate on a scale from strongly disagree to strongly agree how far you agree with the following statements.

- I intend to continue participating in the ideation contests of 'De Meubelwinkel'
- My intentions are to continue participating in the ideation contests of 'De Meubelwinkel' rather than in the ideation contests of other firms
- I plan to continue to participate in the ideation contests of 'De Meubelwinkel' in the future
- I will participate in the ideation contests of 'De Meubelwinkel' on a regular basis in the future
- I intend to continue participating in the ideation contests of 'De meubelwinkel' rather than discontinue the participation

Control Variable:

- Have you ever participated in an actual ideation contest before?

For example in ideation contests collecting ideas for a new flavour of a product or product improvements, logo design contests, naming contests, general design contests, or other contests that collect ideas.

- Yes
- No

Demographics:

In the next section, you are asked to answer some final questions about your demographics.

- What is your gender?
 - Male
 - Female
 - Non-Binary/ third gender
 - Other

- What is your age?
 - 18-25
 - 26-35
 - 36-45
 - 46-55
 - 56-65
 - 66-75
 - Older than 76

- What is your nationality?
 - Dutch
 - Other

- What is your highest education?
 - High School
 - MBO
 - HBO
 - University
 - Other
 - Prefer not to say

If you would like to be informed about the results of the survey, you can leave your email address below. Your information will be treated confidentially.

Appendix B: Survey in Dutch

Beste participant,

Wij zijn Svenja, Jebid, Sara en Maks, vier studenten van de masteropleiding 'Marketing' aan de Radboud Universiteit in Nijmegen. Deze enquête is gecreëerd als onderdeel van onze master scriptie. U staat op het punt om mee te doen aan deze enquête over een online ideeënwedstrijd.

Dit is een wedstrijd, georganiseerd door een bedrijf, waar consumenten ideeën bedenken voor nieuwe producten die door het bedrijf ontwikkeld zouden kunnen worden. Denk hierbij bijvoorbeeld aan een nieuwe smaak voor een product.

In het volgende gedeelte wordt de informatie gegeven over de online ideeënwedstrijd die in deze enquête gebruikt wordt. De online ideeënwedstrijd is fictief en georganiseerd door een fictief bedrijf genaamd 'De Meubelwinkel'. De online ideeënwedstrijd vindt plaats op de website van dit bedrijf. Hierna wordt u gevraagd om enkele vragen te beantwoorden. De enquête zal ongeveer 5 minuten duren. We waarderen uw tijd en deelname aan onze enquête.

Deelname is volledig vrijwillig en de resultaten worden anoniem verwerkt. U heeft de mogelijkheid om op elk moment uw deelname aan de enquête zonder consequenties te beëindigen. Mocht u specifieke verzoeken, vragen of opmerkingen hebben kunt u een email sturen naar maks.jansen@ru.nl. Mocht u geïnteresseerd zijn in het ontvangen van de resultaten van deze enquête, dan kunt u uw mailadres achterlaten aan het einde van deze enquête. Er zal vertrouwelijk met uw persoonlijke informatie om worden gegaan. Je moet ten minste 18 jaar oud zijn om met het onderzoek mee te doen.

- Ik begrijp bovenstaande, ga akkoord met het verwerken van mijn antwoorden en ik ben ouder dan 18 jaar
- Ik ga NIET akkoord met het verwerken van mijn antwoorden

In het volgende onderdeel van de enquête krijgt u een kort stukje tekst wat u moet lezen. In deze tekst wordt een scenario geschetst. Lees de tekst aandachtig en probeer u in te leven in het scenario.

Control Group:

Stel uzelf de volgende situatie voor.

U heeft zojuist deelgenomen aan een online ideeënwedstrijd en u heeft deze voltooid. De online ideeënwedstrijd is georganiseerd door 'De Meubelwinkel' met als doel om nieuwe meubels te ontwerpen met de ideeën van consumenten. Voorafgaand aan de online ideeënwedstrijd heeft u de volgende omschrijving ontvangen:

Wat mis jij in jouw huis dat op dit moment nog niet in onze winkel ligt? Deel je beste ideeën met ons, zodat wij je kunnen helpen met het creëren van de producten die jij nodig hebt in jouw huis! 'De Meubelwinkel' is geïnteresseerd in het ontwerpen van nieuwe producten, maar hierbij hebben we jouw hulp nodig. Gebruik je creativiteit en vaardigheden om meubels te

bedenken die jouw huis nog mist! Aan het einde van de online wedstrijd zal de deelnemer met het beste idee een prijs ontvangen!

- Geef aan in hoeverre u het eens bent met de volgende stelling.
- Het scenario voelt realistisch

Firm Feedback

Stel uzelf de volgende situatie voor.

U heeft zojuist deelgenomen aan een online ideeënwedstrijd en u heeft deze voltooid. De online ideeënwedstrijd is georganiseerd door 'De Meubelwinkel' met als doel om nieuwe meubels te ontwerpen met de ideeën van consumenten. Voorafgaand aan de online ideeënwedstrijd heeft u de volgende omschrijving ontvangen:

Wat mis jij in jouw huis dat op dit moment nog niet in onze winkel ligt? Deel je beste ideeën met ons, zodat wij je kunnen helpen met het creëren van de producten die jij nodig hebt in jouw huis! 'De Meubelwinkel' is geïnteresseerd in het ontwerpen van nieuwe producten, maar hierbij hebben we jouw hulp nodig. Gebruik je creativiteit en vaardigheden om nieuwe meubels te bedenken die jouw huis nog mist! Aan het einde van de online wedstrijd zal de deelnemer met het beste idee een prijs ontvangen!

Tijdens de online ideeënwedstrijd heeft u feedback ontvangen van 'De Meubelwinkel' in de vorm van kritische opmerkingen op uw idee. Voorbeelden van opmerkingen van de medewerkers van 'De Meubelwinkel':

"Goed idee! Onze klanten zouden dit product heel graag in hun huis willen."

of

"Helaas is het onmogelijk om dit product te produceren met dat materiaal."

- Geef aan in hoeverre u het eens bent met de volgende stellingen.
- Het scenario voelt realistisch
- Ik kan me voorstellen hoe de feedback gegeven wordt in de online ideeënwedstrijd
- Ik ben me er van bewust dat ik feedback heb gehad van 'De Meubelwinkel'

Peer Feedback

Stel uzelf de volgende situatie voor.

U heeft zojuist deelgenomen aan een online ideeënwedstrijd en u heeft deze voltooid. De online ideeënwedstrijd is georganiseerd door ‘De Meubelwinkel’ met als doel om nieuwe meubels te ontwerpen met de ideeën van consumenten. Voorafgaand aan de online ideeënwedstrijd heeft u de volgende omschrijving ontvangen:

Wat mis jij in jouw huis dat op dit moment nog niet in onze winkel ligt? Deel je beste ideeën met ons, zodat wij je kunnen helpen met het creëren van de producten die jij nodig hebt in jouw huis! ‘De Meubelwinkel’ is geïnteresseerd in het ontwerpen van nieuwe producten, maar hierbij hebben we jouw hulp nodig. Gebruik je creativiteit en vaardigheden om nieuwe meubels te bedenken die jouw huis nog mist! Aan het einde van de online wedstrijd zal de deelnemer met het beste idee een prijs ontvangen!

Tijdens de online ideeënwedstrijd heeft u feedback ontvangen van andere deelnemers van de online ideeënwedstrijd in de vorm van kritische opmerkingen op uw idee. Voorbeelden van opmerkingen van andere deelnemers zijn:

“Ik vind het een heel goed idee, ik mis dit ook in mijn huis!”

of

“Ik vind het design van het product niet mooi, als ik jou was zou ik het veranderen.”

Geef aan in hoeverre u het eens bent met de volgende stellingen.

- Het scenario voelt realistisch
- Ik kan me voorstellen hoe de feedback gegeven wordt in de online ideeënwedstrijd
- Ik ben me er van bewust dat ik feedback heb gehad van de andere deelnemers

Peer & Firm feedback

Stel uzelf de volgende situatie voor.

U heeft zojuist deelgenomen aan een online ideeënwedstrijd en u heeft deze voltooid. De online ideeënwedstrijd is georganiseerd door ‘De Meubelwinkel’ met als doel om nieuwe meubels te ontwerpen met de ideeën van consumenten. Voorafgaand aan de online ideeënwedstrijd heeft u de volgende omschrijving ontvangen:

Wat mis jij in jouw huis dat op dit moment nog niet in onze winkel ligt? Deel je beste ideeën

met ons, zodat wij je kunnen helpen met het creëren van de producten die jij nodig hebt in jouw huis! 'De Meubelwinkel' is geïnteresseerd in het ontwerpen van nieuwe producten, maar hierbij hebben we jouw hulp nodig. Gebruik je creativiteit en vaardigheden om nieuwe meubels te bedenken die jouw huis nog mist! Aan het einde van de online wedstrijd zal de deelnemer met het beste idee een prijs ontvangen!

Tijdens de online ideeënwedstrijd heeft u feedback ontvangen van 'De Meubelwinkel' en van andere deelnemers in de vorm van kritische opmerkingen op uw idee. Voorbeelden van opmerkingen van 'De Meubelwinkel' zijn:

"Goed idee! Onze klanten zouden dit product heel graag in hun huis willen."

of

"Helaas is het onmogelijk om dit product te produceren met dat materiaal."

Voorbeelden van opmerkingen van andere deelnemers zijn:

"Ik vind het een heel goed idee, ik mis dit ook in mijn huis!"

of

"Ik vind het design van het product niet mooi, als ik jou was zou ik het veranderen."

Geef aan in hoeverre u het eens bent met de volgende stellingen.

- Het scenario voelt realistisch
- Ik kan me voorstellen hoe de feedback gegeven wordt in de online ideeënwedstrijd
- Ik ben me er van bewust dat ik feedback heb gehad van de andere deelnemers
- Ik ben me er van bewust dat ik feedback heb gehad van 'De Meubelwinkel'

Attention Check:

- Wie heeft de fictieve online ideeënwedstrijd van het scenario dat u zojuist hebt gelezen georganiseerd?
 - De Meubelwinkel
 - De tandarts
 - De kapper
 - De supermarkt

Continuance Intention:

In de volgende stellingen wordt u gevraagd naar uw intentie om deel te nemen aan toekomstige online ideeënwedstrijden van 'De Meubelwinkel' gebaseerd op het scenario dat u eerder heeft gelezen. Geef aan in hoeverre u het eens bent met de volgende stellingen.

- Ik heb de intentie om door te gaan met deelnemen aan de online ideeënwedstrijden van 'De Meubelwinkel'.
- Mijn intenties zijn om door te gaan met mijn deelname aan de online ideeënwedstrijden van 'De Meubelwinkel', liever dan online ideeënwedstrijden van andere bedrijven.
- Ik ben van plan om door te gaan met mijn deelname aan de online ideeënwedstrijden van 'De Meubelwinkel' in de toekomst.
- Ik zal regelmatig deelnemen aan de online ideeënwedstrijden van 'De Meubelwinkel' in de toekomst.
- Ik heb de intentie om door te gaan met deelnemen aan de online ideeënwedstrijden van 'De Meubelwinkel' in plaats van mijn deelname te stoppen.

Control Variable:

- Heeft u in het verleden ooit deelgenomen aan een echte online ideeënwedstrijd? Bijvoorbeeld in wedstrijden waarbij nieuwe ideeën werden verzameld met betrekking tot nieuwe smaken van een product of verbeteringen van een product, of wedstrijden voor het ontwerpen van een nieuw logo, het bedenken van een nieuwe naam, een nieuw ontwerp van een product, of andere wedstrijden waarbij ideeën werden verzameld?
 - Ja
 - Nee

Demographics:

In het volgende gedeelte wordt u gevraagd om enkele vragen in te vullen over uw demografische gegevens.

- Wat is uw gender?
 - Man
 - Vrouw
 - Non-binair / derde gender
 - Zeg ik liever niet

- Wat is uw leeftijd?
 - 18-25 jaar
 - 26-35 jaar

- 36-45 jaar
- 46-55 jaar
- 56-65 jaar
- 66-75 jaar
- 76 jaar en ouder

- Wat is uw nationaliteit?

- Nederlands
- Anders

- Wat is uw hoogst voltooide opleiding / bent u momenteel mee bezig?

- Middelbare School
- MBO
- HBO
- Universiteit
- Anders
- Zeg ik liever niet

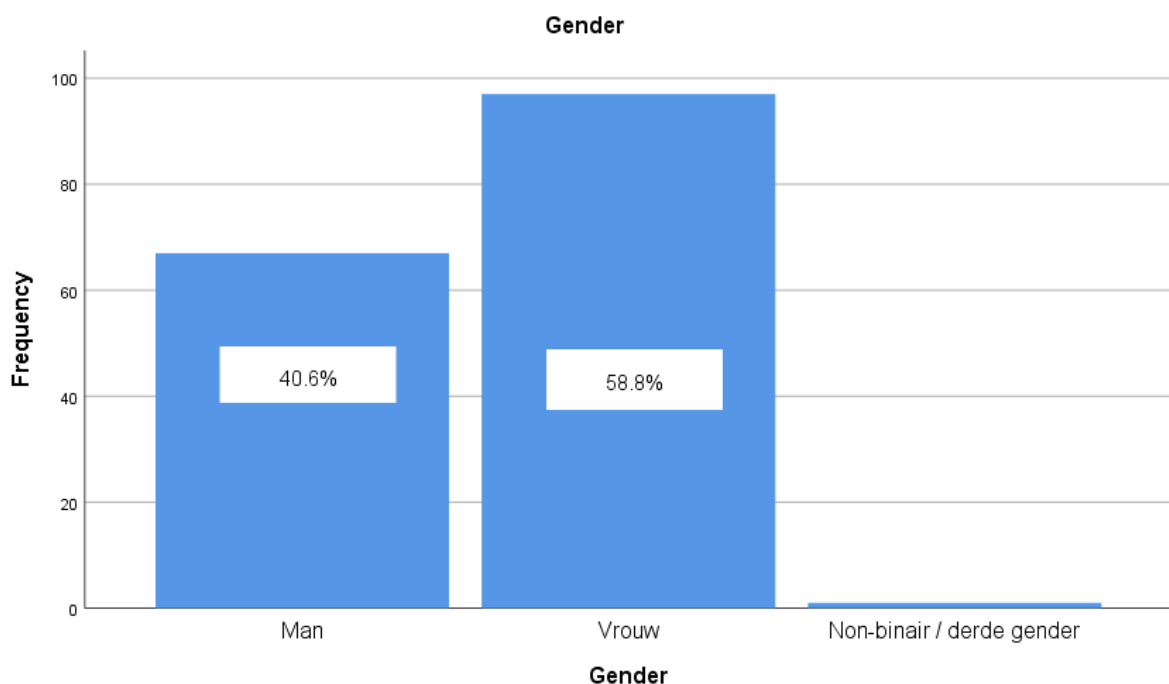
Als u graag geïnformeerd wilt worden over de resultaten van deze enquête kunt u uw mailadres hieronder achterlaten. Uw persoonlijke informatie zal vertrouwelijk worden behandeld.

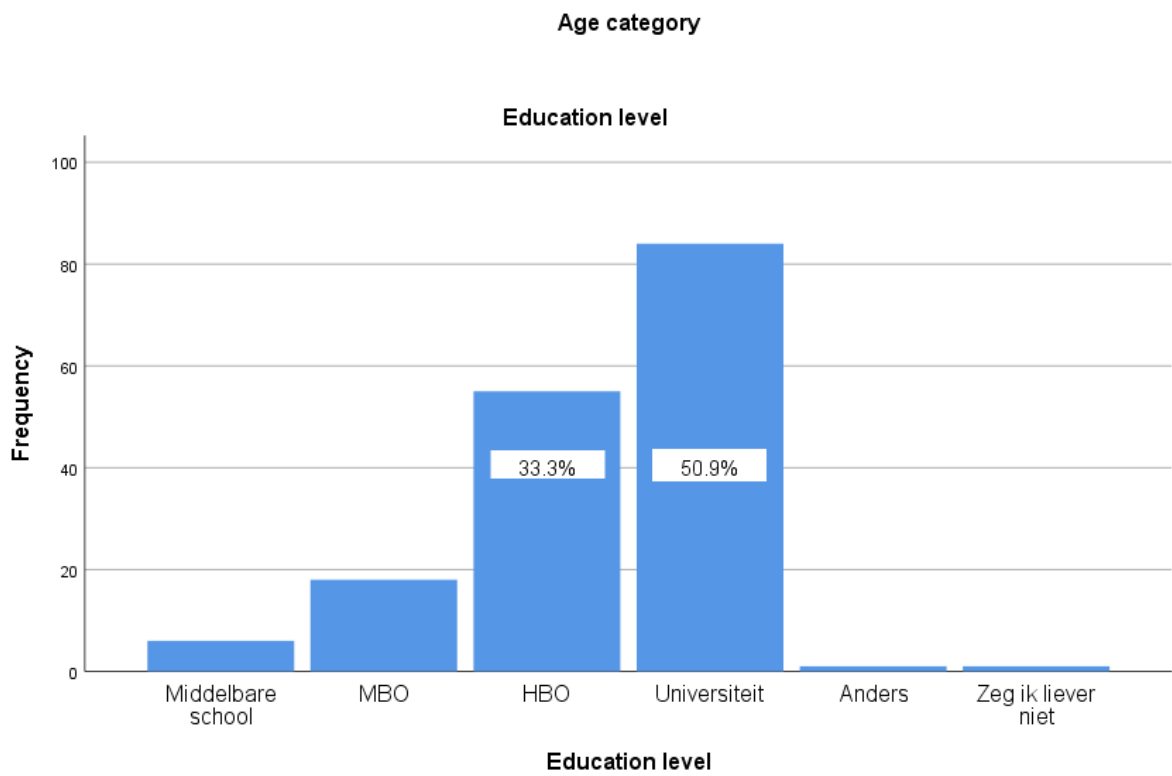
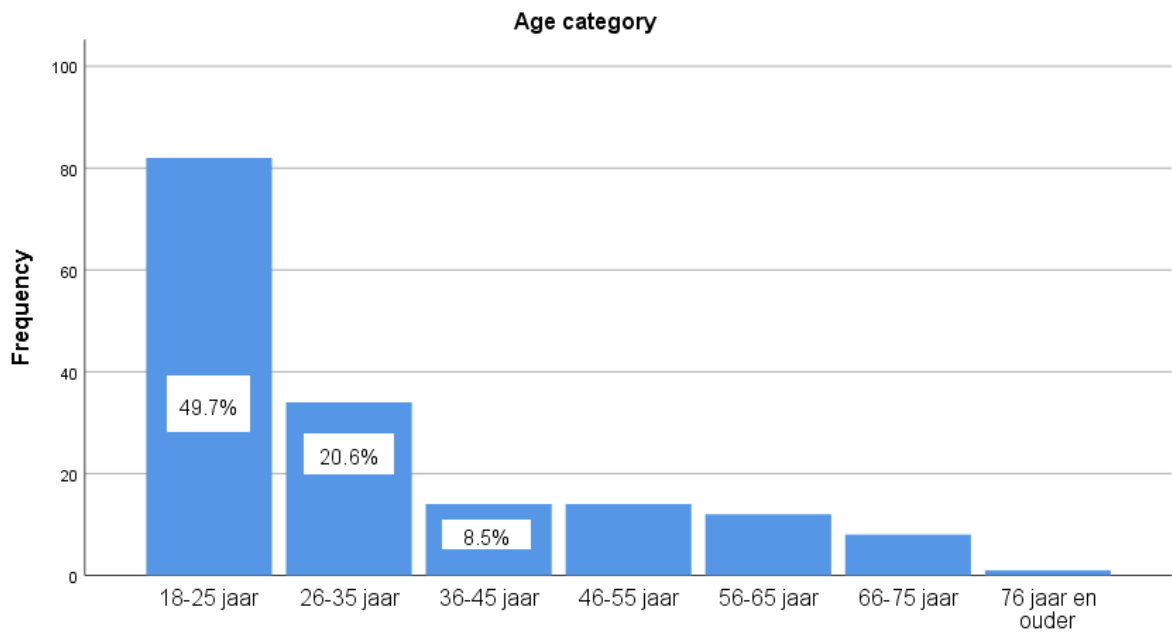
Appendix C: Demographics

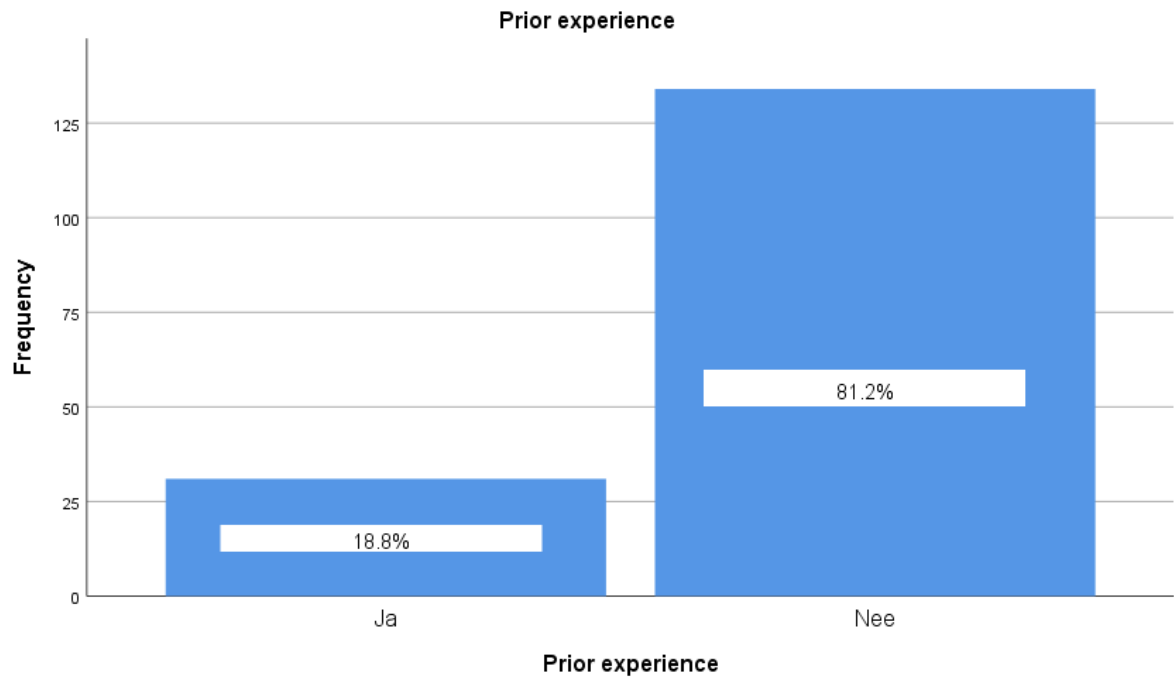
Demographics Table:

Item	Total	Control Group	Firm Feedback	Peer Feedback	Firm Feedback * Peer Feedback
N	164	44	39	36	45
Gender					
Male	67	13	20	14	20
Female	96	31	19	22	24
Non-Binary	1	0	0	0	1
Age					
18-25 years old	82	21	20	21	20
26-35 years old	33	7	7	6	13
36-45 years old	14	5	2	4	3
46-55 years old	14	4	5	0	5
56-65 years old	12	4	3	2	3
66-76 years old	8	3	2	2	1
76 or older	1	0	0	1	0
Education					
High School	6	1	1	3	1
MBO	18	8	4	2	4
HBO	55	13	11	12	19
University	83	22	23	19	19
Other	1	0	0	0	1
Prefer not to Say	1	0	0	0	1

Demographics Frequency Bar Charts:







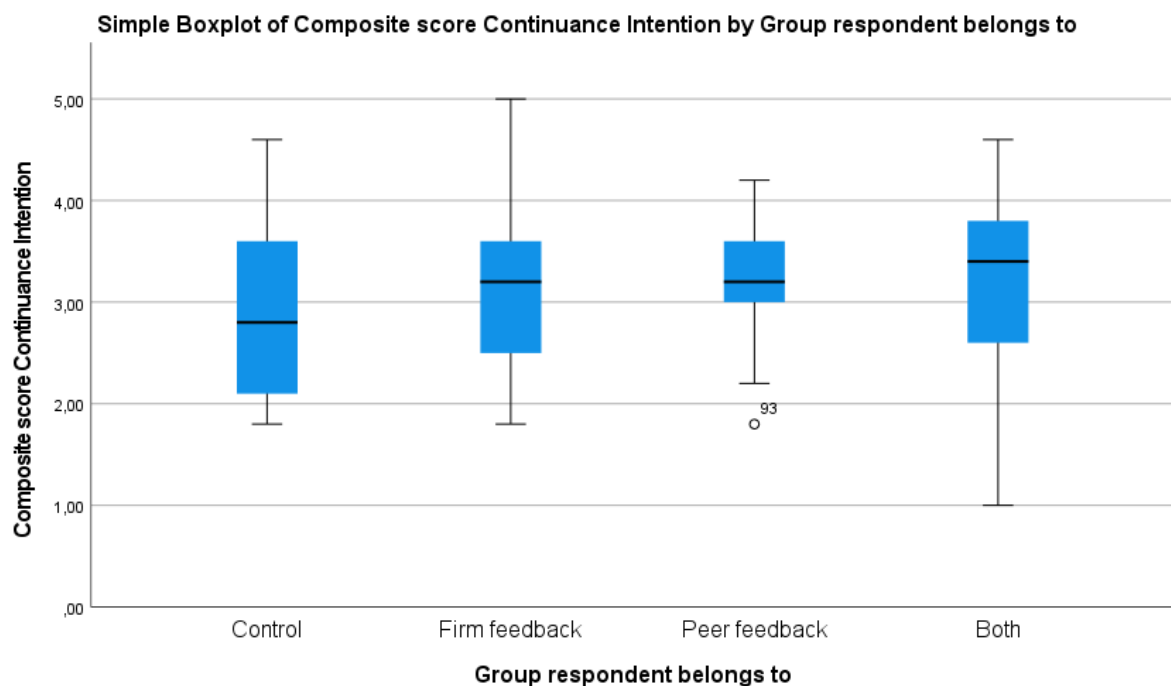
Appendix D: Reliability and Outlier Analysis

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N
.852	.853	5

Cronbach's Alpha if item deleted

Items	Cronbach's Alpha if Item Deleted
Continuance Intention 1	.842
Continuance Intention 2	.837
Continuance Intention 3	.781
Continuance Intention 4	.835
Continuance Intention 5	.810

Outlier Analysis:



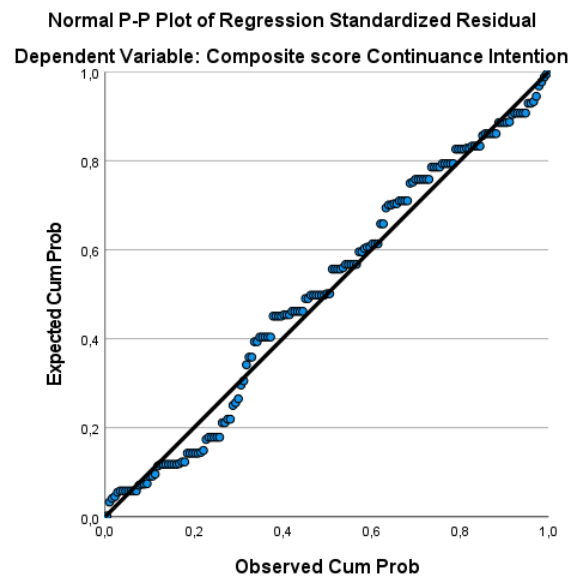
Appendix E: ANOVA with Outlier and Prior Experience

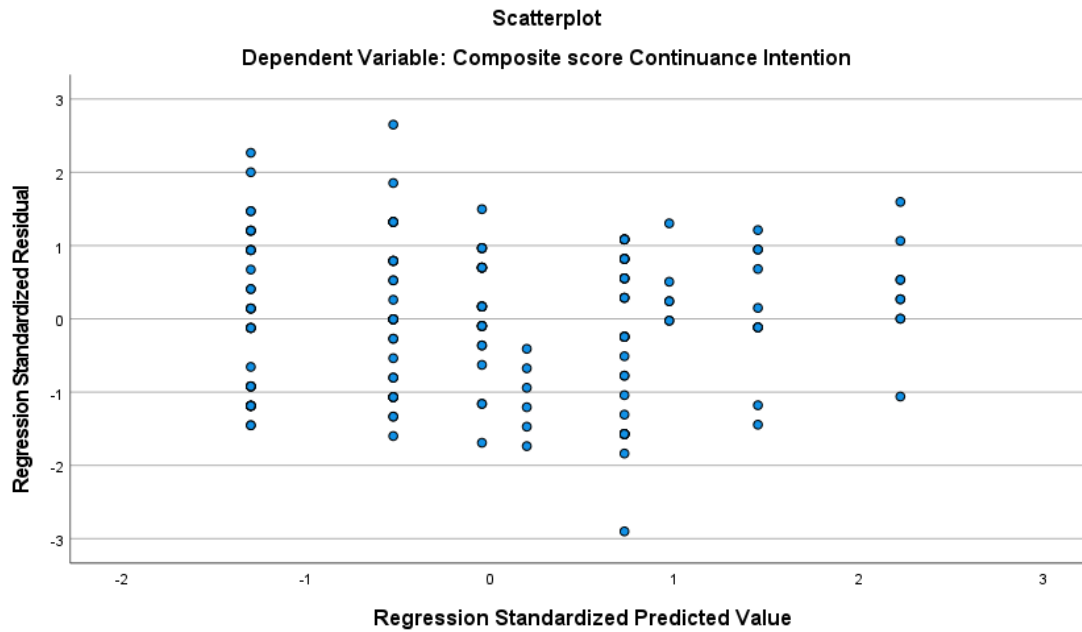
ANOVA Assumptions: with the outlier and prior experience included

Normal distribution assumption :

Group Respondent Belongs to	N	Statistics	P-Value	zskewness	zkurtosis
Control Group	44	.922	.005	1.269	-1.323
Firm Feedback	39	.969	.351	0.431	-0.594
Peer Feedback	37	.952	.115	-1.394	-0.148
Peer Feedback and Firm Feedback	45	.926	.007	-1.653	-0.721

Independence of Errors:





Homogeneity of Variances

Based on Mean	F	Df1	Df2	P-Value
	2.081	7	157	.049

ANOVA Test:

Source	Type III Sum of Squares	Df	Mean Square	F	P-Value	Partial Eta Squared
Corrected Model	5.068 ^a	4	1.267	2.264	.065	.054
Intercept	993.437	1	993.437	1775.039	<.001	.917
Firm Feedback	.482	1	.482	.860	.355	.005
Peer Feedback	1.382	1	1.382	2.469	.118	.015
Prior Experience	.987	1	.987	1.763	.186	.011
Firm Feedback * Peer Feedback	1.706	1	1.706	3.048	.083	.019
Error	89.547	160	.560			
Total	1658.640	165				
Corrected Total	94.616	164				

^a R Squared = .054 (Adjusted R Squared = .030)

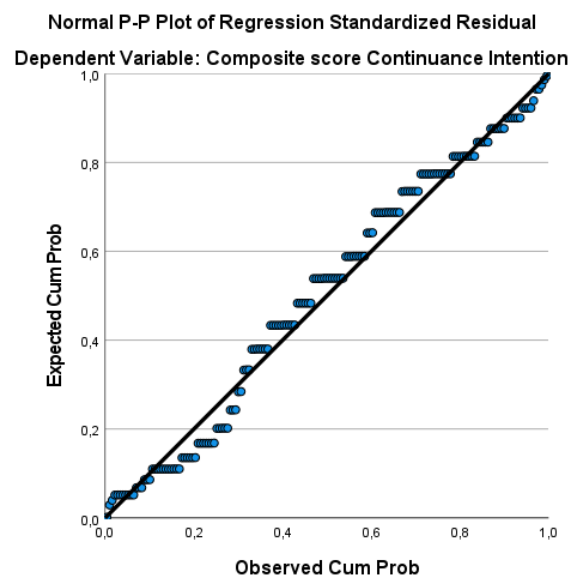
Appendix F: ANOVA with Outlier and without Prior Experience

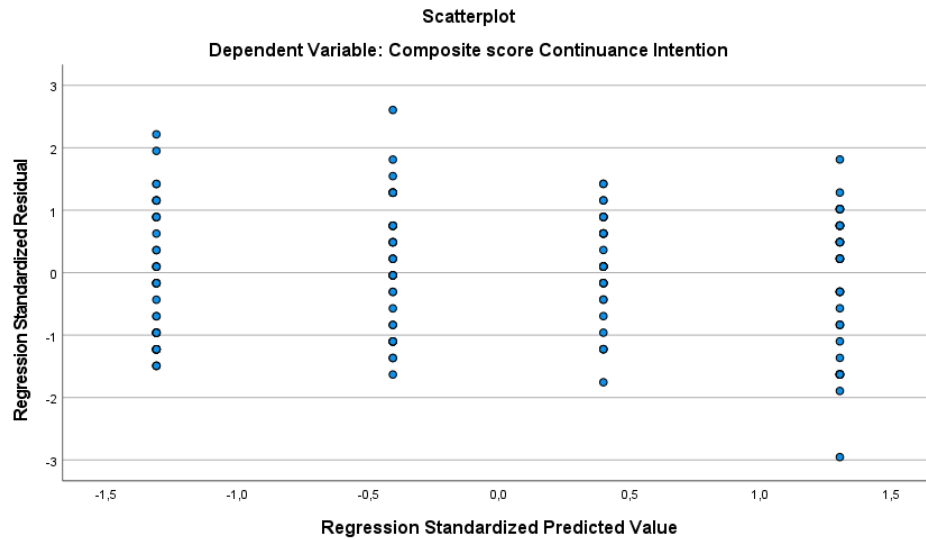
ANOVA without prior experience and with outlier:

Normality assumption:

Group Respondent Belongs to	N	Statistics	Df	P-Value	zskewness	zkurtosis
Control Group	44	.922	44	.005	1.269	-1.323
Firm Feedback	39	.969	39	.351	0.431	-0.594
Peer Feedback	37	.952	37	.115	-1.394	-0.148
Peer Feedback and Firm Feedback	45	.926	45	.007	-1.653	-0.721

Independence of errors:





Homogeneity of variances:

Based on Mean	F	Df1	Df2	P-Value
	2.630	3	161	.052

ANOVA Test:

Source	Type III Sum of Squares	Df	Mean Square	F	P-Value	Partial Eta Squared
Corrected Model	4.082 ^a	3	1.361	2.420	.068	.043
Intercept	1561.802	1	1561.802	2777.411	<.001	.945
Firm Feedback	.436	1	.436	.776	.380	.005
Peer Feedback	1.686	1	1.686	2.999	.085	.018
Firm Feedback * Peer Feedback	1.861	1	1.861	3.310	.071	.020
Error	90.534	161	.562			
Total	1658.640	165				
Corrected Total	94.616	164				

^a R Squared = .043 (Adjusted R Squared = .025)

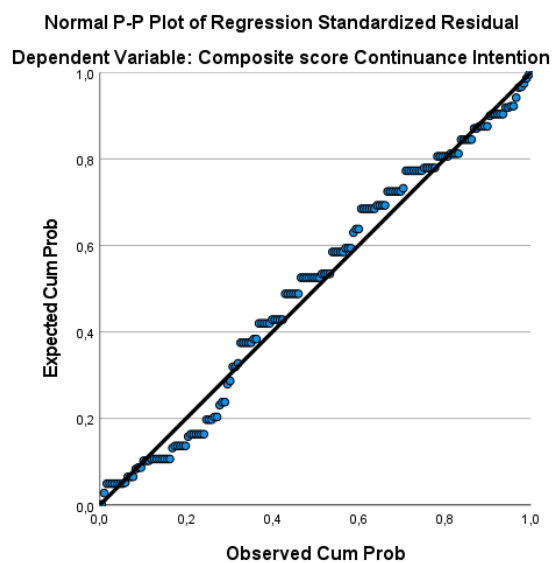
Appendix G: ANOVA without Outlier and without Prior Experience

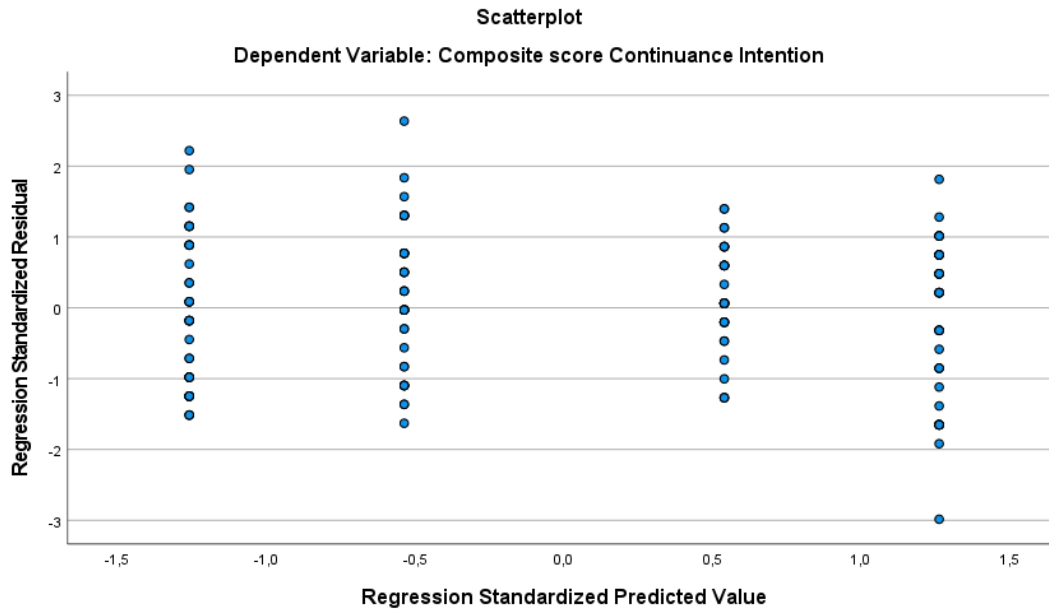
ANOVA without outlier and without prior experience:

Normality Assumption:

Group Respondent Belongs to	N	Statistics	Df	P-Value	zskewness	zkurtosis
Control Group	44	.922	44	.005	1.269	-1.323
Firm Feedback	39	.969	39	.351	0.431	-0.594
Peer Feedback	37	.952	36	.107	-0.962	-0.499
Peer Feedback and Firm Feedback	45	.926	45	.007	-1.653	-0.721

Independence of errors:





Homogeneity of variances:

Based on Mean	F	Df1	Df2	P-Value
	3.254	3	160	.023

ANOVA Test:

Source	Type III Sum of Squares	Df	Mean Square	F	P-Value	Partial Eta Squared
Corrected Model	4.577 ^a	3	1.526	2.762	.044	.049
Intercept	1559.963	1	1559.963	2823.680	<.001	.946
Firm Feedback	.281	1	.281	.509	.477	.003
Peer Feedback	2.020	1	2.020	3.657	.058	.022
Firm Feedback * Peer Feedback	2.211	1	2.211	4.001	.047	.024
Error	88.393	160	.552			
Total	1655.400	164				
Corrected Total	92.970	163				

^a R Squared = .049 (Adjusted R Squared = .031)

Parameter Estimates

Parameter	β	SE	T	P-Value	Lower Bound	Upper Bound	η^2
					95% Confidence Interval		
[Firmfeedback=0]	.150	.166	.903	.368	-.178	.478	.005
[Firmfeedback=1]	0 ^a						
[Peerfeedback=0]	0.01	.163	.063	.950	-.311	.331	.000
[Peerfeedback=1]	0 ^a						
[Firmfeedback=0]*[Peerfeedback=0]	-.466	.233	-2.000	.047	-.927	-.006	.024
[Firmfeedback=0]*[Peerfeedback=1]	0 ^a						
[Firmfeedback=1]*[Peerfeedback=0]	0 ^a						
[Firmfeedback=1]*[Peerfeedback=1]	0 ^a						

^a This parameter is set to zero because it is redundant.

