

# Perceived Usefulness, Perceived Risk, and Trust towards Intention to Use Induction Stove: A Case Study on Pilot Project of Induction Stove Conversion Program in Surakarta

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**Abstract**—One of the factors that determines a consumer's intention to use a product is their perception of it. To determine whether a product is accepted by the community, a product provider must take into consideration the public's intention to use of the product. This research focuses on the pilot project of induction stove conversion program in Surakarta, Indonesia. The objective of this pilot project program was to convert from the use of gas stoves to induction stoves as a strategy for Indonesia to transform energy into cleaner and also more environmentally friendly energy. Therefore, this research resolves that problem by analyzing the effect of perceived usefulness, perceived risk, and trust towards the intention to use induction stoves using the Partial Least Squares Structural Equation Modeling (PLS-SEM) method. Using this method, the significance of the influence and the analysis of the influencing factors can be determined. Results from PLS-SEM using SmartPLS indicate that the perceived usefulness of induction stoves influences trust and intention to use. Trust has an inverse relationship with perceived risk and influences positively in intention to use induction stoves. Perceived risk was found to negatively influence directly in intention to use. The results suggest that companies should plan for another socialization, as well as provide supporting facilities so that information about induction stoves is informed well. This paper contributes to a more comprehensive understanding of the influence of related variables on intention to use in pilot projects.

**Keywords**—perceived usefulness, perceived risk, trust, intention to use, induction stoves

## I. INTRODUCTION

Due to the quick global economic rebound post the COVID-19 disease, several countries are currently experiencing an energy crisis (Effendi, 2021). Indonesia is currently less impacted by the energy crisis. However, you must continue to exercise caution because one of the major risks is there will be an energy crisis brought on by the trend of rising global energy commodity prices (Idris, 2022).

This increase in the price of energy commodities globally could have an impact on rising fuel costs, which will lead to high inflation rates (Talattov, 2022). Indonesia has instruments to stabilize the price of fuel oil (BBM) and Liquefied Petroleum Gas (LPG) through subsidies and energy compensation to anticipate this (Talattov, 2022). The energy subsidy policy in Indonesia regarding 3 Kg LPG is intended for poor households and Small and Medium Enterprises (SMEs) (Toft *et al.*, 2016). Considering that the inflation rate as of June 2022 reached 4.35%, this instrument is meant to keep it at a consistent level (Talattov, 2022).

As a result of the subsidies policy, Pertamina imports LPG when domestic production is insufficient to fulfil the country's needs to guarantee the availability of 3 Kg LPG cylinders. LPG propane and butane raw materials imports have increased because of the high number of LPG consumers. According to Pertamina's 2020 report on the increase of imports of fuel oil, gasoline, and LPG, which was used to purchase raw materials for propane and LPG, imports of gasoline and LPG increased over 2017–2019 with an average annual growth of 2% (Annur, 2020). According to the Badan Pusat Statistika (BPS), the value of LPG imports increased by 58.5% from 2020 to 2021 (BPS, 2021).

However, this increases in imports were not associated with an increase in LPG's selling price. For illustration, while prices on the worldwide market have fluctuated, the selling price of 3 Kg of LPG has not changed since 2008. This encourages more individuals to purchase 3 Kg LPG cylinders even though the Energy Law of 2007 states that only the impoverished are eligible for energy subsidies (Pemerintah Indonesia, U. R., 2007). Energy substitution is one approach that the Indonesian government is trying to develop to minimize the LPG imports (Fitriana and Sugiyono, 2021). The National Energy Council (DEN) intends to move to induction stoves from gas stoves. An

induction stove is a cooking device that uses electrical energy rather than a burning flame to produce heat (Bramasta, 2021).

The reason for choosing an induction stove as a substitute for a gas stove is because according to a 2019 report by the Perusahaan Listrik Negara (PT PLN) Persero, Indonesia still has a surplus of electricity reserves of more than 30%. Additionally, induction stoves are thought to have great efficiency for cooking, reaching 85%, compared to gas stoves and electric stoves. This conversion program intends to reduce gas imports, boost electricity consumption, reduce the trade balance deficit, and provide an alternate strategy to ensure that energy subsidies are effective (Andany, 2022). In this instance, PT PLN Persero supervises and supports the conversion program of gas-based stoves to electrical energy by performing induction stoves socialization and education.

The Indonesian government, through PT PLN, has tried to promote this energy substitution by, among other things, offering special discounts or discounts on power increases to customers who have bought induction stoves. Furthermore, several scientific research assist PT PLN in developing a marketing plan for this effort to replace traditional stoves with induction stoves (Ramadhan and Ulfa, 2021; Tiandho *et al.*, 2021). Although socialization and education have taken place, the percentage of PT PLN customers who have used induction stoves for cooking is still very low at only 0.1% (Ramadhan and Ulfa, 2021). This demonstrates that the amount of socialization and education has not been fully utilized.

In order to stay committed to the success of the induction stove replacement program, PT PLN developed a new strategy with the target of 450 VA Data Terpadu Kesejahteraan Sosial (DTKS), 450 VA Non DTKS, 900 VA DTKS, and Non DTKS MSMEs in low-income communities. Because individuals that fulfil these criteria it is known that most respondents use 3 Kg LPG gas cylinders as fuel for cooking, PT PLN set this target as a mandatory goal. Because individuals who fulfil these criteria it is known that most respondents who meet this criterion use 3 Kg LPG gas cylinders as fuel for cooking, PT PLN raised this aim as an obligatory one. Then, this strategy was put to the test by conducting a pilot project that involved the distribution of an induction stove, the distribution of special cooking utensils, the addition of free electricity power based on the induction stoves' power without changing the price per kWh, and the specialized installation of a induction stove. This program is implemented in two regions, namely Surakarta and Bali with a total of 1000 induction stoves program packages for each region in 2022.

The program involved socialization activities to ensure its success. The purpose of the socialization was to inform the public about the conversion program from gas to induction stoves. An introduction to induction stoves and a comparison of gas stoves and induction stoves were presented in a media flyer that used as the medium for socialization. A cooking demonstration using an induction stove was also done during the socialization, which was done offline. After the socialization activities has been

completed, it is important to look at how the public perceives the risks, benefits, and intention to use an induction stove. This aims to determine how successfully the community engaged to the information given at the time of socialization.

The purpose of this study was to analyze the effect of perceived usefulness, risks, and trust on the intensity of the people of Surakarta to use induction stoves. This study elaborates on several study variables related to the intention to use and the intention to buy that are combined and tailored specifically for the pilot project of the induction stove conversion program that is being performed for the first time in Indonesia. The results of this research's analysis of the public's impression of induction stoves are expected to be provided. They may be utilized to guide the development of the program's subsequent implementation strategy.

## II. LITERATURE REVIEW

### A. *Perceived Usefulness*

Perceived usefulness is defined as how much a person believes that using a certain system will improve their performance at work (Davis, 2013). The usability of a technology is what is meant by perceived usefulness, because if someone doesn't think a technology is beneficial, they won't want to utilize it (Wardhana, 2016). In this instance, it means that induction stove benefits can boost users' performance and productivity.

### B. *Perceived Risk*

Perceived risk defines uncertainty with the possibility of something bad happening in the future when buying or using a product. Perception of risk is a negative effect that can arise due to consumer actions (Lu *et al.*, 2005). Risk has a negative effect on behavioural intentions of information technology users. To adopt a technology, one must be willing to take some risks, some of which may cause the user to decide not to use the technology at all or to be discouraged from doing so (Nicolaou and Mcknight, 2006). This implies that the intention to adopt technology will decrease if there is a risk involved. Customers' desire to purchase or use a product will decrease as a result of perceived risk (Masoud, 2013).

### C. *Trust*

Trust is all consumer knowledge and conclusions about objects, attributes, and benefits (Narko and Udayana, 2017). Trust is related to the functions carried out by companies or brands that can be trusted by consumers (Irvania *et al.*, 2022). Trust is the expectation of everyone who will become a consumer, that the company can be trusted and relied on in providing satisfaction to consumers. Trust is a statement that is in the mind or verbally that can describe a person's knowledge and assessment of a thing or idea (Alghifari and Rahayu, 2021).

### D. *Intention to Use*

Intention to use is a positive attitude in self-motivation in using technology and the desire to motivate others to use technology (Loanata and Tileng, 2016). Interest or intention is driven by a desire after seeing, observing,

comparing, and considering the desired needs. Consumer interest in innovative products can be analysed by looking at the internal and external sides of the product. The internal side depends on the knowledge, capacity, resources and technology used in the company while the external is the needs of consumers and the owner's expectations of the products.

### E. Socialization

Socialization is an advanced learning process that enables individuals to grow into cultural individuals that capable of performing both their individual and group roles to the best of their abilities (Iskandar and Tumimomor, 2017). The goal of socializing is to help people learn how to communicate and to help them comprehend their social and cultural environments, both their current environment and their new environment. The word "medium" is a Latin word that literally means "middle, intermediary, or introduction. The word's plural form is "media" (Iskandar and Tumimomor, 2017). As a result, the media might be seen as a mediator or as an entrance to the message from the sender to the recipient. Software or hardware can both be considered forms of media. The media here refers to the tools of socialization.

### F. Induction Stoves

Induction stove is a stove that allows a person to cook without using a burning fire, but electrical energy which is a source of heat energy (Bramasta, 2021). Long-term carbon emissions reduction is also thought to be supported by induction stoves (Tiandho *et al.*, 2021). Induction stoves are known to have energy efficiency of up to 85% according to previous study (Fitriana and Sugiyono, 2021). The rate at which energy is released and converted to thermal energy is known as energy efficiency. This indicates that 85% of the energy released by the induction stove is transformed into heat energy, which can then be used for cooking.

## III. METHODS

This research uses the Partial Least Square Structural Equation Model (PLS-SEM) method. The Partial Least Square Structural Equation Model (PLS-SEM) approach is used in this investigation. PLS-SEM is a powerful analytical technique that can be used for confirmation purposes (hypothesis testing) as well as exploratory purposes (Sánchez-Navas and Ferràs-Hernández, 2015). PLS-SEM was recommended because it is a very logical and efficient method for breaking down complicated models (Hair *et al.*, 2014).

This study examines the effect of perceived usefulness, perceived risk, and trust towards intention to use in Surakarta. This study develops a model framework based on several previous studies. Four variables are used in this study are perceived usefulness, perceived risk, trust, and intention to use. The concept of the model in this study is as follows.

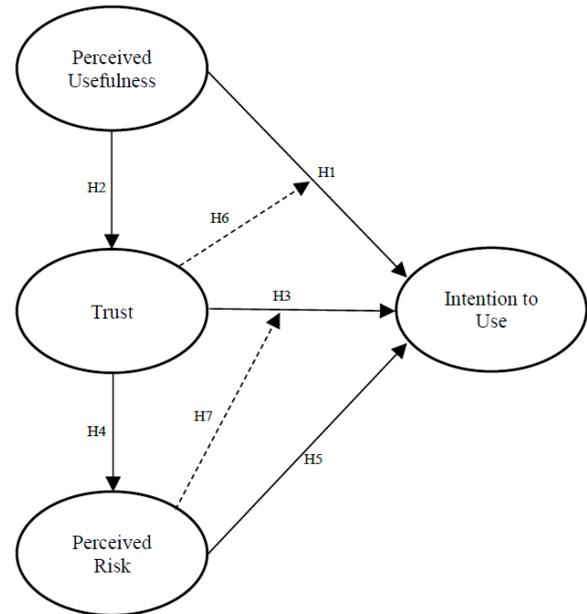


Fig. 1. Research model.

Perceived usefulness have a significant impact on the intention to use or embrace Traveloka in Indonesia, according to research by Loanata and Tileng (2016). In addition, trust has a significant negative impact on perceived risk, while perceived usefulness have a significant positive impact on both. Ventre and Kolbe (2020) research on the impact of perceived usefulness from online reviews, trust, and perceived risk on online shopping intentions was published in 2020. According to the literature review, the intensity that a product is used increases with the perception of perceived usefulness. Therefore, the proposed hypothesis is as follows:

H1: Perceived usefulness have a significant positive effect on the intention to use.

Perceived usefulness from online reviews have a considerable beneficial impact on trust, according to research by Ventre and Kolbe (2020) on the relationship between perceived usefulness, trust, and perceived risk on online purchase intentions. Research by Primanda (2020) Yudiarti and Puspaningrum (2018) studying the role of trust as a mediator between the effect of perceived usefulness and perceived ease of use on intentions to buy e-books, shown that perceived usefulness have a strong positive effect on trust. According to the literature review, consumers' trust in a good or service will increase because of the benefits they perceive. Therefore, the proposed hypothesis is as follows:

H2: Perceived usefulness have a significant positive effect on trust.

The results of studies by Yudiarti and Puspaningrum, (2018) looked at the role of trust as a mediator between the effect of perceived usefulness and perceived ease of use on intentions to buy e-books, and Primanda (2020) showed that trust has a significant positive effect on intention to purchase where the variable is perceived usefulness. The

relationship between perceived usefulness and purchasing intention is mediated by this trust. According to the literature review, a product or service's perceived usefulness will increase a customer's intention to utilize it. Therefore, the proposed hypothesis is as follows:

H3: Trust has a significant positive effect on the intention to use.

Loanata and Tileng (2016) research demonstrates that trust has a considerable negative impact on risk perception, with perception of risk serving as the mediating factor between trust and perceived advantages. The trust in a service or product will reduce the sense of risk that may be felt in the future, according to the research study. Therefore, the proposed hypothesis is as follows:

H4: Trust has a significant negative effect on risk perception.

According to Alghifari and Rahayu (2021), which looks at how discounts, website quality, risk perception, and trust affect buying decisions at Shopee online stores, risk perceptions have a strong negative impact. This means that if customers trust they would experience risk or loss when utilizing the Shopee online shop, their decision to make a purchase there will be impacted, which will decrease their desire in doing so. Therefore, the proposed hypothesis is as follows:

H5: Perceived risk has a significant negative effect on the intention to use.

Research by Primanda, Yudiarti and Puspaningrum, that examines the role of trust as a mediator between the effect of perceived usefulness and perceived ease of use on intention to buy demonstrates that trust has a significant positive effect on person's intention where this trust variable mediates relationship between perceived usefulness and intention to buy. According to the literature review, the level of trust affects how consumers perceive a product's usefulness and whether they plan to use it. Therefore, the proposed hypothesis is as follows:

H6: Trust has a significant positive effect mediating the relationship between perceived usefulness and intention to use.

Research by Loanata and Tileng (2016) demonstrates that trust has a strong negative impact on risk perception, with risk perception serving as a mediating factor between trust and perceived usefulness. Alghifari and Rahayu (2021) look at how discounts, website quality, risk perception, and trust affect buying choices at Shopee's online store, also demonstrates that risk perception has a large negative impact on buying choices. According to the literature review, trust and intention to utilize a good or service are related through perceived risk. Therefore, the proposed hypothesis is as follows:

H7: Perceived risk has a significant negative effect mediating the relationship between trust and intention to use.

After the model framework is formed, it is necessary to operationalize each variable and indicator, which will later be used as a questionnaire, as shown in Table I.

TABLE I. VARIABLES AND INDICATORS

Variables	Indicator	Code	
Perceived Usefulness	Cost Effective	PM1	
	Fast Cooking Time	PM2	
	Safety	PM3	
	Clean and Environmentally Friendly	PM4	
	Practical	PM5	
Persepsi Risiko	Physical Safety	PR1	
	Financial Risk	PR2	
	Hard to Use	PR3	
	Limited	PR4	
Trust	Trust in Program Packages	K1, K2,	
	Ease of Getting Equipment	K3, K4, K5,	
	Trust in Product Providers	K6, K7, K8	
	Intensi to Use	Program Package Acceptance	IM1
		Willingness to Try	IM2
Substitution		IM3	

#### IV. DATA COLLECTION

A survey was conducted to gather data based on the proposed questionnaire design. After the socialization, the survey was carried out. Media leaflets were distributed in the respondent's neighborhood as part of the socialization activity, and there was also direct information sharing by assembling everyone in one location (offline). Based on urban villages or sub-districts that are tailored to the local environment, socialization activities are separated. An overview to the induction stove's functions and a cooking demonstration utilizing an induction stove were both conducted during the socialization. It is hoped that the target community will be aware of the conversion program for gas stoves to induction when the survey is conducted. Based on the survey results, obtained as many as 470 valid respondent data. The results of data collection were then processed with descriptive statistics consisting of sub-district domicile, occupation, income level, expenditure level, installed electric power, and stove ownership.

#### V. RESULT AND DISCUSSION

##### A. Outer Model Evaluation

The first step in the PLS-SEM stage is the outer model evaluation. The outer model test has three criteria: convergent validity, discriminant validity, and composite reliability. The convergent validity is tested using the outer loading and AVE (Average Variance Extracted) value. After the first iteration, all indicators have an outer loading value above 0.7 as shown in Table II and all variables have an AVE value above 0.5. It means the convergent validity can be accepted as shown in Table IV. The discriminant validity is tested by using the Fornell-lacker values. Fornell-lacker values of each variable are greater on their variable than on other variables. Therefore, all variables pass the discriminant validity test as shown in Table III. The reliability is tested using Composite Reliability (CR)

value, and all variables have a CR value above 0.7 which means the reliability can be accepted. Internal consistency reliability is tested using composite reliability value, and all variables have composite reliability values above 0.7, which means the reliability can be accepted, as shown in Table IV. Based on the results, all research variables are valid, and the research instruments are reliable.

TABLE II. OUTER LOADING VALUES

Indicator	Outer loading
PM1	0.868
PM2	0.815
PM3	0.883
PM4	0.854
PM5	0.863
PR1	0.875
PR2	0.867
PR3	0.789
PR4	0.834
K1	0.823
K2	0.807
K3	0.872
K4	0.796
K5	0.826
K6	0.841
K7	0.860
K8	0.855
IM1	0.956
IM2	0.963
IM3	0.725

TABLE III. FORNELL-LACKER VALUES

	Intention to Use	Trust	Perceived Usefulness	Perceived Risk
Intention to Use	0.888			
Trust	0.465	0.835		
Perceived Usefulness	0.510	0.779	0.857	
Perceived Risk	0.023	-0.204	-0.231	0.842

TABLE IV. AVERAGE VARIANCE EXTRACTED AND COMPOSITE RELIABILITY VALUES

Variable	Average Variance Extracted (AVE)	Composite Reliability
Intention to Use	0.789	0.917
Trust	0.698	0.949
Perceived Usefulness	0.734	0.932
Perceived Risk	0.708	0.907

### B. Inner Model Evaluation

The next step is inner model evaluation. The evaluation is carried out by looking at the R-Square ( $R^2$ ) criteria and Predictive Relevance ( $Q^2$ ). The R-square of purchase intention means the logistic performance variable is 62.4% by the halal certification variable, and the financial performance variable is influenced by 38.1% by the halal certification variable and logistic performance mediation. In contrast, the rest is influenced by other variables not included in this study. Then this research model has a relevant predictive value where the proposed research model can explain the information contained in the research data by 44.3% and 20.8%, as shown in Table V.

TABLE V. OUTER LOADING VALUES

Variables	R Square	Predictive Relevance
Intention to Use	0.294	0.222
Trust	0.607	0.420
Perceived Risk	0.041	0.025

### C. Hypothesis Testing

Hypothesis testing can be done by looking at the p-value. If the p-value is less than 0.05, then the relationship between the variables is significant (Astuti *et al.*, 2021). Then, look at the original sample value to see the direction of hypothesis testing. If the original sample shows a positive value, the direction is positive (in the same direction). If the original sample value is negative, the direction is negative (opposite). The results of hypothesis testing can be seen in Table VI.

TABLE VI. HYPOTHESIS TESTING

Hypothesis	Relationship	Original samples	P-value	Decision
H1	PM $\rightarrow$ IM	0.404	0.000	Supported
H2	PM $\rightarrow$ K	0.779	0.000	Supported
H3	K $\rightarrow$ IM	0.182	0.010	Supported
H4	K $\rightarrow$ PR	-0.204	0.000	Supported
H5	PR $\rightarrow$ IM	0.153	0.000	Not supported
H6	PM $\rightarrow$ K $\rightarrow$ IM	0.142	0.010	Supported
H7	K $\rightarrow$ PR $\rightarrow$ IM	-0.031	0.003	Supported

### D. Proposed Improvement

Based on the results of the perceived usefulness analysis, the community (respondents) have a relatively positive perception of the usefulness of this gas stove conversion program to an induction stove. However, it still needs to be improved so that the perception of community is optimal. Increased perception of usefulness has the potential to increase KPM trust while supporting KPM's intention to participate in the program and use an induction stove by 14%. This means that, if an intervention or activity is carried out to increase the perception of the usefulness of an induction stove, it will increase the intention to use an induction stove.

Activities that can be done to increase the perception of the usefulness of induction stoves include making educational videos related to induction stoves through social media. Video media on social media can be used as an alternative for socialization because it can reach more people and is easier to understand (Iskandar and Tumimomor, 2017). In addition, more intense socialization and education to the community needs to be carried out once the program packages have been distributed. This aims to prove the usefulness of the program package including the benefits of using an induction stove that was conveyed during the initial socialization where this is to achieve the goal of increasing the perception of usefulness and the public's intention to join the program and use the induction stoves. This intense socialization and education can be done through community WhatsApp groups and social media. Social media can be used for socialization because it can reach a wider community (Mahinji, 2019).

Based on the results of the trust analysis, the community has trust in the induction stoves product provider, PT PLN. However, this is certainly not enough for the sustainability of the program. There needs to be an effort to increase public trust so that it is optimal so that the community intends and participates in the program and is not worried about the perceived risks. Public trust can be increased, among others, by providing a support system for community readiness to implement program packages. The support system can be in the form of making an induction stoves information center that is easily accessible by the public to provide information and assistance on the use of induction stoves, as well as socializing the PT PLN complaint system, such as complaints by telephone or the PT PLN application (special telephone number for induction stoves complaints, or PT PLN Mobile).

Based on the results of the trust analysis, the community has a trust in the induction stoves product provider, PT PLN. However, this is certainly not enough for the sustainability of the program. There needs to be an effort to increase public trust so that it is optimal so that the community intends and participates in the program and is not worried about the perceived risks. Public trust can be increased, among others, by providing a support system for community readiness to implement program packages. The support system can be in the form of making an induction stoves information center that is easily accessible by the public to provide information and assistance on the use of induction stoves, as well as socializing the PT PLN complaint system, such as complaints by telephone or the PT PLN application (special telephone number for induction stoves complaints, or PT PLN Mobile).

Based on the results of the risk perception analysis, the high-risk perception from the community still has the potential to support the community's intention to participate in the program by 15%. After further investigation, there are several things that cause this. The first reason is the scarcity of LPG gas in several areas in Surakarta. This condition encourages people to be on guard if in the future 3 Kg LPG gas are not on the market. It was even identified that several community members (non-target respondents) were looking for ways to register or

participate in the induction stove conversion program from PLN independently. This is a sign that people are starting to look for other alternatives to replace LPG gas stoves. The second reason is that there is concern because induction stoves are not commonly used by the community, but there is pride in the people who are the target targets of PT PLN's pilot project because not all community members are selected to be recipients of the program package. The third reason is that the program package offered by PT PLN is beneficial, with the offer of facilities provided "free of charge" ranging from special electrical installations, special tariffs for electric induction stoves, induction stoves, to cooking equipment.

Based on the results of the analysis, several solutions can be made to reduce the public's perception of risk. The first solution that can be proposed is the provision of video tutorials on the use of induction stoves as well as information videos about what features are available on induction stoves, what dishes can be cooked, and so on. This video-making solution can reduce the perception of risk related to the limited menu that can be cooked using an induction stove. This video media can be distributed through community WhatsApp groups and social media. Video media on social media can be used as an alternative for socialization because it can reach more people and is easier to understand (Iskandar and Tumimomor, 2017). Then the second solution is to build an induction stove information center to provide information and assistance on the use of induction stoves. This second solution aims to reduce the perception of the risk of an induction stove related to the danger or safety when using an induction stove where with this solution can be done education about how to use a good induction stove to reduce the risk of danger when cooking.

The third solution is that a complaint or complaint can be made via a telephone number or application. This third solution aims to reduce the perception of the risk of an induction stove related to the obstacles, damage, and difficulties encountered when using an induction stove. The fourth solution is that careful regulatory or policy planning can be carried out so that it can reduce risk perceptions related to electricity bills. In addition, socialization related to tariff policies can be carried out to reduce the perception of the risk of induction stoves. These four solutions can be done to reduce risk perceptions while increasing the intention to use induction stoves because according to Masoud (2013), if there is a decrease in risk in the use of technology, the intention to use technology will increase.

Based on data processing and analysis, it is known that the socialization regarding the conversion program for gas stoves to induction stoves has been quite effective and the information has been accepted by the community. This is indicated by the results of the analysis after socialization. The results of the analysis of perceived benefits showed that 73% of respondents had a positive perception (agree) of the benefits of induction stoves that were conveyed during socialization. This means that the socialization related to the benefits of induction stoves is well conveyed and accepted by the community. Then for trust based on the

results of the analysis, it is known that 66% of respondents have confidence in the product and PT PLN as the provider of induction stove products. This means that the socialization carried out raises confidence in the induction stove. Then for the perception of risk based on the results of the analysis it is known that 69% of respondents have a positive perception (disagree with the risk of the induction stove). This means that the socialization carried out has shown that there is minimal risk of using an induction stove.

## VI. CONCLUSION

Based on the findings using the PLS-SEM methods with the use of SmartPLS software indicate that the perceived usefulness and trust influences customers intention to use induction stoves. Perceived usefulness influences trust level towards the induction stoves program stakeholders. Trust has an inverse relationship with perceived risk and influences positively in intention to use induction stoves. Perceived risk was found to negatively influence directly in intention to use.

There are many challenges to be faced as this is the first program for converting gas stoves to induction stoves that held in Indonesia. One of the challenges is that many people still don't know about induction stoves. Also, tariff policies that have not been socialized properly make people doubt this program.

Based on the results of the analysis, below are several solutions for the program. A proper plan of socialization of the program is especially related to the risks that may be caused so that the perception of risk can be reduced. Also, socialization about electricity tariffs using induction stoves should be done. Besides, providing video tutorials, providing an induction stoves information center to provide information and assistance on the use of induction stoves, and providing complaint or complaint facilities via telephone numbers or applications can also be carried out so that it can educate the society and becomes a solution that more effective to increase the public's intention to join the program, use induction stoves, and reduced the perceptions risk of using an induction stoves.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

## AUTHOR CONTRIBUTIONS

Amanda Syifa Ariqoh analyzed the data and wrote the paper; Pringgo Widyo Laksono conducted the research of the methodologies; Retno Wulan Damayanti conducted the survey and built the abstract; all authors had approved the final version.

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