

The Crash Of Boeing 737 Max 8 And It's Effect On Costumer Trust: Case On Lion Air Passenger

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Abstract. The accident that happened on Boeing 737 Max 8 which cover 2 airlines Lion Air and Ethiopian Airlines which raises questions about the aircraft safety with 346 deaths in total, as the result of the crash the aircraft was grounded worldwide. On April 2019 Boeing continued to work on finalizing the software a delay were announced and the final software was released to the FAA in May, with Boeing continued to work on finalizing the software this research was intended for Indonesian passenger especially lion air passenger do they trust Boeing 737 Max 8 if the FAA allow the 737 max 8 return to the sky, we use quantitative method and questionnaire to find out the result. The result showed that there is an effect of crash towards the customer trust and can be proved using simple linear regression ($Y = 5,604 + 0.196X$). It means that each increasing point of variable X (crash) will affect variable Y (customer trust) which is 0.196 in 5.604 constants. Based on the result of correlation analysis, $r = 0.550$ shows that there is a medium correlation level between two variables. The determinant coefficient is 30.2% proved that crash has an affect of 30.2% on customer trust while the rest (68.2%) come from other factors. The result from hypothesis test is $t \text{ count} > t \text{ table}$ or $6,516 > 1.984$ it means there is a significant impact of variable X (crash) towards variable Y (customer trust).

1. Introduction

The Boeing 737 family was widely known and used by airline all across the globe, as the answer for it's new competitor the Airbus A320neo Boeing starts to develop a new aircraft based on the 737NG(Next Generation). The first delivery of Max 8 was handed over to Malindo Air on 16 May 2017, after one year of service 130 airplanes delivered to 28 customers with outstanding 4,509 orders more than 41,000 flights and 118,000 flight hours-transporting more than 6.5 million passengers[1]. After one year of service on October 29, 2018, Lion Air flight 610 dive into Java sea just 13 minutes after takeoff from Soekarno-Hatta international airport, within 5 months another flight Ethiopian Airlines flight 302 crashed just 6 minutes after takeoff from Addis Ababa with 346 fatalities total, 189 on Lion Air flight 610 and 157 Ethiopian Airlines flight 302. The case definitely has a bad impact on airlines that use the type of aircraft to operate. Passenger loss is a result that is most likely to occur. Passengers can lose trust in using airlines that operate using that type of aircraft.

Creating and maintaining consumer trust is foundation for maintaining good relationships with consumers in the run long because trust is a firm attitude to the consumer's position about something for example to the company. If you trust a company, consumers will be loyal and not easy to turn to other companies [2].

Customer trust means that all knowledge held by customer and all conclusions made by consumers regarding objects, attributes and benefits (mowen dan minor 2002).[3] Customer trust is a reciprocal behavior to what they receive. Trust comes when you understand your customer's needs, respect them, and offer relevant service this is strongly supported According to Nububisi (2007) Customer trust is a the belief that a product or service can be relied upon in meeting needs.[2] Company have to be good at what they do, but having a truly successful business is base on one simple concept, it is trust. Gaining customer's trust is important not only to make them loyal and come back, but also so they insist their friends do business with you too. But without trust you may as well pack up and go home. According to a concerto marketing group and Research Now survey, when customer trust a brand, 83 percent will recommend a trusted company to others and 82 percent will continue to use that brand frequently. While hardly anyone talks about the time went above and beyond for a customer, they

certainly hear from the unsatisfied ones if the company failed to make a deadline or delivered a product or there's a defect and anything that didn't do what the company promised [4].

Based on the statement above, it can be concluded that errors in production or operation can cause a decrease in customer trust.

This research was made to find out the level of trust of passengers, especially in Indonesia, to fly using the aircraft model based on the case that happened to Boeing 737 max 8.

2. Literature Review

2.1 Airplane Crash

According to Heinrich (1980) an accident is an unplanned and uncontrolled event which is an action or reaction of an object, substance, human or radiation that allows / can cause injury.[5] While Frank E. Bird and George L. Germain define accidents as an unwanted event that causes harm to humans, damage to property, or work process activities, as a result of contact with substances or sources of energy that exceed the limits of the body's ability, tools, or structure.[5]

In the world of aviation and in the field of investigation the term crash is usually defined as two different things, namely an accident and an incident.[6] The emergence of these two terms is based on the existence of differences in the level of danger, loss of life, injuries, and the level of losses incurred.[6] According to the International Civil Aviation Organization (ICAO), the definition of a civil aircraft accident (accident) is "an event related to the operation of an aircraft that occurs since someone boarded an airplane for flight purposes until a time when everyone had left (dropped from) or got out of an airplane (ICAO, 2001).[6]

In contrast to the notion of Serious Incident, ICAO (Annex 13, 2001) defines the serious incident as "an" incident "involving the situation and which indicates that an" accident "is close to occurring". The difference between an "accident" and a "serious incident" only lies in the consequences.[6]

Meanwhile according to ICAO, NTSB, and Boeing the definition of aircraft incident is "an event other than an" accident "related to the operation of an aircraft that has an impact or can have an impact on safety for the operation" (ICAO, 2001, NTSB, 2006 and Boeing, 2012). It can be concluded that accidents can cause a variety of losses so it is very important to manage things well in order to minimize the percentage of accidents or avoid these accidents.[6]

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2.2 Customer Trust

Trust is consumer confidence regarding the characteristics of suppliers and supplier behavior in the future. Trust is a level of belief held by one party against another that the other party will act as expected (Eid, 2011; Anderson & Weitz, 1989)[7] Chang states that customer trust consists of affective and cognitive trust (Chinomona & Sandada, 2013).[7] In cognitive trust, consumers believe that providers of products or services are competent and reliable in keeping their promises.[7] While in affective trust, consumers believe that when providers of products or services look for ways to maximize profits, they also have genuine attention to consumer needs. Trust is created when consumers strongly believe in a product or service because the product or service provides benefits for them (Chinomona & Dubihlela, 2014; Dabholkar & Sheng, 2012).[7] Pi and Huang (2011) get results that in the aviation industry, customer trust has a positive influence on customer loyalty.[7]

It is very important to get customer trust in this case the passenger trust, it allows passengers to reuse the same services and of course to be a profit for the company so it is also important to maintain relationships with customer who already have trust in us or not.

3. Research Method

This research used a simple linear regression analysis with a quantitative approach to see the impact between one variables. Quantitative Research is a research method based on the philosophy of

positivism, used to research in a particular sample, data collection using research instruments, quantitative data analysis, with the aim of testing a predetermined hypothesis (Sugiyono, 2012).

Data collection will be carried out by distributing questionnaires distributed to air transport users of the airline Lion Air, to find out in depth whether the impact of the accident on the Boeing 737 MAX 8 affects the confidence of Lion Air passengers. The population and sample of this study are users of air transportation services, especially Lion Air and have the following conditions:

1. Male or female
2. Have done flights with Lion Air
3. Knowing the case of an accident against the Boeing 737 MAX 8

4. Result and Discussion

This research aims to analyze the crash of boeing 737 max 8 and its affected on customer trust. This research data is as much as 100 respondents who had been used lion air services by distributing questionnaires

From the results of the questionnaire, data recapitulation taken from the characteristics of respondents based on occupation and their amount of flight using Lion Air from the data below

Table 1. Characteristics of Respondents by occupation

		Occupation			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	College Students	43	43.0	43.0	43.0
	Pegawai Negeri (PNS)	11	11.0	11.0	54.0
	Private Employees	32	32.0	32.0	86.0
	Wiraswasta	5	5.0	5.0	91.0
	Others	9	9.0	9.0	100.0
	Total	100	100.0	100.0	

Based on Table 1 occupation of respondents are mostly college students with apercentage of 43% of 43 respondents, then 32% prof 32 respondents are private employees,11% of 11 respondents are PNS, and 9% of 9 respondents are other and 5% of 5 respondent are Wiraswasta.

Table 2. Characteristics of Respondents by flight frequency using Lion

					Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	1kali	14	14.0	14.0	14.0
	2-3kali	28	28.0	28.0	42.0
	4-5kali	15	15.0	15.0	57.0
	lebihdari5kali	43	43.0	43.0	100.0
	Total	100	100.0	100.0	

Based on Table 2. Total respondent who first time use Lion Air its about 14%, 2-3 times use 28%, 4-5 times 15%, and more than 5 times is 43%.

Table 3. Validity Test Crash On Boeing 737 MAX 8 Variable

Items	R Count	R Table 5% (100)	Validity
1	0,635	0,1946	VALID
2	0,615	0,1946	VALID
3	0,447	0,1946	VALID
4	0,552	0,1946	VALID
5	0,617	0,1946	VALID
6	0,602	0,1946	VALID
7	0,667	0,1946	VALID
8	0,477	0,1946	VALID
9	0,727	0,1946	VALID
10	0,533	0,1946	VALID
11	0,617	0,1946	VALID
12	0,567	0,1946	VALID
13	0,567	0,1946	VALID
14	0,538	0,1946	VALID

Table 4. Validity Test Passenger Trust Variable

Items	R Count	R Table 5% (100)	Validity
1	0,639	0,1946	VALID
2	0,702	0,1946	VALID
3	0,400	0,1946	VALID
4	0,600	0,1946	VALID

Based on Table 3 and Table 4 above, it proved that all the items from variable are valid because r count is bigger than r table. Because of all the items are valid, it can be used in this research.

Table 5. Reliability
Reliability Statistics

Cronbach's	
Alpha	N of Items
.884	18

Based on the results of recapulation and calculation of the data, each variable generates alpha value 0.884 which exceeds the r table value of 0.1946 (N=100). So we can conclude the indicators and questionnaires are reliable or consistent, and it can be used in this research.

Table 6. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.550 ^a	.302	.295	2.614

Table 7. Simple Correlation

	Crash On B737 MAX 8	Passenger Trust
Crash On B737 MAX 8	Pearson Correlation	1
	Sig. (2-tailed)	.550**
	N	100
Passenger Trust	Pearson Correlation	.550**
	Sig. (2-tailed)	1
	N	100

Based on Table 6 and Table 7 above, it explains how much the correlation value is represented by (R), which is equal to 0.550. According to the correlation interpretation guidelines proposed by (Sugiyono, 2012) it means that the variables has a medium correlation level. The determination coefficient value represented by (R Square) is 0.302. It proved that Crash has an affect of 30.2% on customer trust while the rest (69.8%) come from other factors, which was not discussed by the researchers. Also It is proved that the value of significance on the simple correlation test is 0.00, below 0.005 that means between the crash variable and customer trust variable have a correlation.

Table 8. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	290.147	1	290.147	42.462	.000 ^b
	Residual	669.643	98	6.833		
	Total	959.790	99			

Based on Table 8 above, explains that the F count value of this research is 42,462 with a significance value of 0,000. Because of the significance value is below 0.005 we can concluded that Crash variable have a significant impact towards customer trust variable and simple linear regression analysis can be used to predict customer trust variable.

Table 9. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.604	1.482		3.781	.000
	Crash On Boeing 737 MAX 8	.196	.030	.550	6.516	.000

Based on Table 9 above, we can conclude that the result of simple linear regression is $Y = 5.604 + 0.196X$. In this equation the constant is 5.604. Meanwhile, the regression coefficient X is 0.196 claim

that every addition of one value or number on the value of Crash (X), then the value of customer trust (Y) increases by 0.196. The regression coefficient is positive, so it can conclude the direction of variable influence (X) on (Y) is positive. Also based on Table 6 above, The result from coefficients test is $t_{count} > t_{table}$ or $6,516 > 1.984$ it means there is a significant impact of variable X (crash) towards variable Y (customer trust).

5. Conclusion

Based on the result and data analysis can conclude that the crash of boeing 737 max 8 and its affected on customer trust are:

1. Based on the term of the simple linear regression test is all the items are valid and there is a linear relation between the independent variable, which is crash, and the dependent variable, which is customer trust.
2. result of the simple correlation (R) is 0.550. It is proved that the relation between the airline's delay and the customer retention is at the level of medium (0.40 – 0.599). In addition, it is proved that the value of significance on the simple correlation test is 0.00, below 0.005 that means between the crash variable and customer trust variable have a correlation.
3. The result of the determination coefficient test (R Square) is 0.302. It means that crash has an affect of 30.2% on customer trust while the rest (69,8.%) come from other factors. The percentage shows that the effect of airline's delay towards customer retention is positive.
4. The result of the simple linear regression is $Y = 5.604 + 0.196X$. It means that each increasing point of variable X (crash) so variable Y(customer trust) will increase as much as 0.196 and the constant in this equation is 5,604.
5. The result of the hypothesis test is to count $> t_{table}$ or $6.516 > 1.984$, because of t_{count} is bigger than t_{table} it means there is a significant effect between the independent variable which is crash and the dependent variable which is customer trust.

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