

## CONSUMER BEHAVIOUR IN PURCHASING OF THE ONLINE AGRICULTURAL PRODUCTS

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### Abstract

*This study aims to analyze the factors that influence consumer purchasing online agricultural products. We observed three West Sumatra cities with internet access above the provincial average. Suspected individual, socio-demographic and cultural factors influence agricultural consumer behavior. This study surveyed 100 respondents by accident in the three cities. Data analysis was carried out using a logit analysis approach. The results showed that individual factors significantly affected consumer behavior while demographic and cultural characteristic had no considerable impact. Consumers who have regular incomes and fixed jobs have substantial opportunities to purchase online agricultural products because they are considered more effective and provide a lot of convenience during their busy activities.*

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**Kata Kunci:** *consumer behavior, e-marketing*

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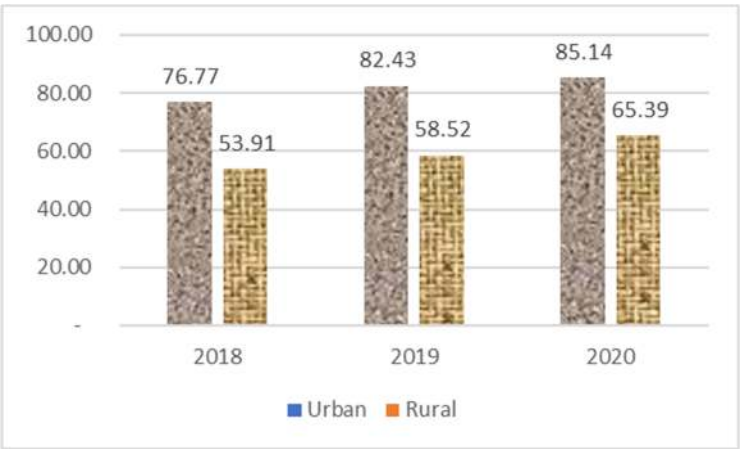
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INTRODUCTION

One of the characteristics of modern agricultural development is the use of information and communication technology (ICT). Advances in information and communication technology have brought major significant changes in various economic sectors, including the agricultural sector industry. According to Burhan (2018), the use of ICT in the agricultural sector aims to empower farmers, develop farmers' economies, and strengthening aims to empower farmers, develop farmers' economies and strengthen agricultural product marketing innovations. The advancement of ICT is also believed to play a role in accelerating the process of knowledge sharing, information dissemination, and market access and strengthening communication networks in the context of agricultural development.

Information technology is a very effective supporting factor in providing various conveniences in agricultural activities, especially in developing marketing innovations. Rapid technological changes have driven consumers to adopt technology on a large scale in digital transaction formats (Baicu et al., 2020 and Sheth, 2020). Changes in the culture and lifestyle of modern society demand effectiveness in every purchase transaction. Digitalization of marketing has become a new trend that people are interested in shopping because it is more effective and offers many conveniences in transacting. Initially, marketing digitalization mainly was used for fashion products and travel tickets. but along with changes in consumer buying trends, marketing digitalization also applies to the agricultural sector.

The concept of agricultural digitization launched by the government is expected to integrate the development of information and communication technology with on-line marketing of agricultural products. This, of course, requires the availability of internet infrastructure that is evenly distributed in each region. According to BPS data (2020), the internet access gap between villages and cities in Indonesia is classified as unequal. The percentage of households accessing the internet in rural areas has only reached 67.19 percent, while household internet access in urban areas has reached 86.81 percent.



Source: BPS (2021)

Figure 1. Household internet access (in percent) in Rural and Urban 2018-2020

West Sumatra is one of the provinces that relies on the agricultural sector as the primary source of GRDP but tends to have relatively low internet access compared to the national average. Inequality of internet access between rural and urban areas also occurs in this area, as shown in Figure 1.

Internet access in urban communities in West Sumatra is relatively higher than in rural communities. It is suspected that e-marketing applications for purchasing agricultural products in West Sumatra are more dominated by urban consumers who have better internet access. According to McLuhan (2006), technological advances can change human communication patterns and transactions, including shopping behavior. The ease of transactions offered by e-marketing is considered suitable for the lifestyle of urban communities. Therefore, this research area will focus on urban consumers in West Sumatra.

according to Schiffman and Kanuk (2000), consumer buying behavior is the behavior or actions taken by consumers in seeking information, buying products, using them, and deciding whether to repurchase or stop it. According to Kotler and Armstrong (2002), consumer behavior is the behavior of end consumers, both individuals, and households, in buying and consuming a product.

The covid-19 pandemic that is currently engulfing the global economy also has consequences for changes in consumer behavior. It has attracted researchers to conduct this study, especially concerning the trend of using e-marketing in purchasing products during the pandemic. The existence of government policies such as social restrictions resulted in changes in people's interest to shop directly at the market or shop. The use of e-commerce is very prominent in changing consumer behavior during the pandemic (Cardenas et al., 2021). Technological advances are also driving changes in social life during the pandemic with the increasing use of social media platforms for digital marketing (Pillai et al., 2020).

According to previous studies, consumer purchasing decisions are influenced by many factors, including (1) cultural factors (Mc Luhan, 2006); (2) socio-demographic factors (Chen and Yang 2021; Hasanof and Khalid, 2016); (3) and individual factors (Park et al. 2021; Dominici et al., 2021; Lina et al. 2007). The research focuses more on consumer behavior from technological developments in big cities. Still, research on consumer behavior from the standpointutilizing technological advances in small cities, especially in purchasing agricultural products, is minimal.

The most fundamental problems in e-marketing in small towns are the relatively limited public access to the internet and the inadequate availability of infrastructure. Based on the above issues, research on consumer behavior analysis in purchasing agricultural products online is necessary.

## RESEARCH PURPOSES

This study aims to analyze the factors that influence consumer purchasing agricultural products online, especially in small cities in West Sumatra. West Sumatra

is one of the provinces in Indonesia that makes the agricultural sector a leading sector, but internet access is still below the national average. It certainly impacts agricultural development, especially efforts to realize marketing digitalization to discover more advanced agricultural development.

### METHODOLOGY

The research method used by the researcher is a qualitative descriptive method. Sources of data used include primary data and secondary data. Primary data sources were taken by conducting interviews with 100 respondents who were taken by accident in several cities in West Sumatra, namely Bukittinggi City, Padang Panjang City, and Padang City. The selection of the three cities was based on data on the highest internet usage in all districts/cities in West Sumatra in 2020, namely 73.84 percent, 71.48 percent, and 63.61 percent, respectively. Secondary data is taken from BPS and Susenas data.

The research variables were grouped into three namely (1) individual factors, (2) socio-demographic factors, and (3) cultural factors. The variables used in this study refer to many research results conducted by Lina et al. (2007); Afizah et al. (2009); Justin et al. (2012); Mona et al. (2013); Chen and Yang (2021), and Dominici et al. (2021). Variables and their measurement techniques are described in Table 1.

**Table 1. Research Variables and Measurements**

Variable	Code	Sub Variable	
Dependent Variable	Y	Y=1 high purchase frequency (>average purchases) Y=0 low purchase frequency (<average purchases)	
Individual Factors	X1	Age	1= generation Y and Z 0= other
	X2	Gender	1= female 0=others
	X3	Job	1= fix job 0= others
	X4	Income	1= fix income 0= others
	X5	Working time	1= Equal 8 hours a day 0= others
	X6	Education	1= high education 0= others
	X7	Trust	1= testimony based 0=others
socio-demographic factors	X8	Reference group	1= couple 2 family; 3 friend; 4 neighbor; 5 others
	X9	Number of families	Number of families

Cultural Factor	X10	Digital style	life	1= digital life style 0= others
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Source: data analysis 2021

Data analysis was performed using logit analysis. The estimation of this model was carried out using the maximum likelihood technique. The selection of the logit model is done because the dependent and independent variables are categorical. Logit analysis uses the following equation:

$$Y_i = \frac{e^{(\alpha + \beta_{gender} + \beta_{x_{age}} + \beta_{job} + \cdots + \beta_{digital\ life\ style})}}{1 + e^{(\alpha + \beta_{gender} + \beta_{age} + \beta_{job} + \cdots + \beta_{digital\ life\ style})}}$$

### RESULTS AND DISCUSSION

Analyzing consumer behavior in purchasing agricultural products online is conducted by observing some variables. Descriptive statistics of the measured variables are described in table 2. T study results show that the frequency of online purchases of agricultural products is still relatively low. Only 18% of respondents have an above-average purchase frequency.

**Table 2. Descriptive statistics of the measured variables**

Variable	Code		Sub Variable	Percentage
Dependent Variable	Y		Y=1 high purchase frequency (>average purchases)	18
			Y=0 low purchase frequency (<average purchases)	82
Individual Factors	X1	Age	1= generation Y and Z	15
			0= other	85
	X2	Gender	1= female	56
			0=others	44
	X3	Job	1= fix job	27
			0= others	73
	X4	Income	1= fix income	36
			0= others	64
	X5	Working time	1= Equal 8 hours a day	48
			0= others	52
socio-demographic factors	X6	Education	1= high education	98
			0= others	2
	X7	Trust	1= testimony based	67
			0=others	33
	X8	Reference group	1= couple	14
			2 family;	58
			3 friend;	4
			4 neighbor;	24

Table 2. Advanced

Cultural Factor	X9	Number of family	Number of family	
			1= 1-4 member	45
	X10	Digital life style	0= >4 member	55
			1= digital life style	81
			0= others	19

Source: data analysis 2021

Female consumers tend to be more dominant in purchasing agricultural products online, namely 56 percent. According to Dominici et al. (2021), young women who live in small families with adequate economic conditions tend to purchase agricultural products such as food and beverages online.

The research results by Mona et al. (2013) show that online buying behavior tends to differ between pro and female consumers due to privacy, virtual experience, security, and credibility issues. Although shopping is considered a woman's activity because it usually deals with household shopping, research by Hashim et al (2009) shows that male consumers shop more and spend more money online than women. Other studies have shown that organic foods are primarily included in the diets of young female customers (Justin et al., 2012).

Consumers who make purchases of agricultural products online who are in the age range of 20-28 years reach 72 percent. T. The study found that 81 percent of consumers have a digital lifestyle characterized by intensive communication media and digital technology. According to Mennheim (1923), the millennial generation born in the range of 1980 - 2000 tends to have a higher intensity of internet use. The results show that 67 percent of consumers purchase based on testimonials they get from other people's shopping experiences. According to Park et al. (2021), other consumer reviews and information on product images affect consumer confidence in making purchasing decisions.

The results of the logit analysis show that individual factors influence consumer behavior in urban areas in buying agricultural products online. In contrast, socio-demographic characteristics and cultural factors have no significant effect.

Table 3. The results of the logit factor analysis that influence consumer behavior in purchasing agricultural products online

Predictor	Coefficient	P-value	Odds ratio	Description
Constant	-24.78	0.999	0.68	
X1 (age)	-0.388	0.616	1.62	
X2 (gender)	-0.221	0.661	0.64	
X3 (job)	-0.450	0.668	10.55	
X4 (income)	2.355	0.026	4.12	Significant
X5 (working time)	1.415	0.090	1.97	Significant
X6 (education)	0.679	0.870	1.66	
X7 (trust)	21.231	0.997	1.67	
X8 (reference group)	0.164	0.685	1.18	
X9 (family number)	-0.584	0.598	0.56	
X10 (digital life style)	-0.261	0.780	0.77	

Source: data analysis 2021

The individual factor, income (X4), significantly affecting consumer behavior in purchasing agricultural products. The results of this study are in line with the findings of Melovic et al. (2021) that income consumers who have a relatively high-income level tend to like online purchases because it is more effective and time-saving and has a lot of convenience in the process of distributing goods. According to Mardiani and Imanuel (2013), consumers with high income tend to like a practical shopping process. Ease of shopping online can save shopping time and reduce bargaining transactions.

According to Kamble et al. (2020), the development of a digital culture of life in the community, especially in purchasing agricultural products, has made it easier for consumers to monitor the producers of their products and track the whereabouts of the product and its delivery to the consumer's location.

The individual factor that has a significant effect on consumer decisions in e-marketing to purchase agricultural products is the fixed job factor (X5). It indicates that consumers with fix job, the greater the with fix job have a greater probability of using e-marketing in purchasing agricultural products with fix jobs have a greater probability of using e-marketing to purchase agricultural products. The results of the logit analysis also show that the level of education is statistically significant at the 10% level with a positive coefficient value.

## CONCLUSION

Factors that influence ustustomer behavior in purchasing agricultural onlineonline agricultural products are income andfixed-job customers. Consumers who have high incomes and have permanent jobs are relatively fond of shopping activities that are practical, time-saving, and easy to distribute goods. The higher income of consumer more intensive and digital living culturemore significant, the greater the proportion of consumers using e-marketing to purchase agricultural products. Practicality, efficient time and energy, and various conveniences in delivery are the reasons for consumers to take advantage of e-marketing.

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