

Social Network Analysis: E-Marketing Sales of “*Kue lebaran*” in the Perspective of the Technology Acceptance Model

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ABSTRACT

E-marketing creates fundamental changes in business and consumer behavior, this happens because marketing does not require a lot of money, in contrast to traditional marketing. The purpose of this study was to determine e-marketing in selling Eid cakes (*kue lebaran*) from the perspective of the Technology Acceptance Model by using Social Network Analysis. The data is obtained from tweets on the Twitter application, the data obtained are tweets from April 2-20 2022. Data analysis uses the ATLAS.ti application. This study uses the keyword "jual *kue lebaran*", including only tweets, without retweets and images. Meanwhile Create codings from: authors, mentions, hashtags, and query hashtags only. Then do network analysis, tweets that stand alone or have no relationship with other tweets will be eliminated or excluded. Based on the results of data analysis, it was found that *kue lebaran* producers on the Twitter market their sales in the form of general promotional tweets or mentions to several accounts using easy word selection in conducting searches.

Keywords: SNA; E-Marketing; ATLAS.ti; *jual kue lebaran*; twitter

INTRODUCTION

Improving performance in all aspects of value, customers, employees, and sales is the main goal for all businesses. Marketing policies have an effective role in achieving business success. Having a marketing team with sufficient knowledge of marketing strategies will increase performance growth. Today almost all organizations are trying to revolutionize technology.

The information technology revolution has changed the human culture in doing business. Almost all businesses have been related to electronic instruments including the internet. The development of e-marketing has grown rapidly and is very significant for producers and consumers, as well as market behavior so most businesses have developed marketing strategies electronically or known as e-marketing. The e-marketing strategy requires the use of communication and data networks to be able to convey information about the products/services provided.

In today's modern internet era, almost every business utilizes social media in marketing their products/services. E-marketing creates fundamental changes in business and consumer behavior, this happens because marketing does not require a lot of money, in contrast to traditional marketing. E-marketing uses the internet as a platform that allows organizations to adjust customer needs, reduce transaction costs, and enable customers to move from time-based behavior to behavior that is not limited by space and time. This can happen because ordering products/services are done anywhere and anytime. According to Gilmore et al.(2007), E-marketing makes use of this same technology specifically as a logical extension to meet traditional market practices of creating, communicating, and delivering value to customers. Closely related to this, e-commerce refers specifically to the facilitation of transactions created by the marketing activities of a business.

E-marketing is a simple concept but it covers all important aspects of customer relationships (Hoge, 1993). E-marketing consists of direct and indirect response marketing using various technologies to help connect industries with their consumers. This means that e-marketing includes all operations that a business completes using the world wide web to focus on new business, maintaining a current business, and expanding its brand individuality.

Several research models have been conducted to analyze and understand the factors that influence the acceptance of the use of computer technology, one of which is the Technology Acceptance Model (TAM). TAM was developed from a psychological theory that explains the behavior of computer users based on beliefs, attitudes, intentions, and user behavior relationships. (Davis, 1989). The purpose of this model is to explain the factors of user behavior towards the acceptance of technology use(Artha et al., 2021; Sahin & Shelley, 2008; Zhou et al., 2021).

The Technology Acceptance Model places the attitude factor of each user's behavior into two variables, namely: ease of use and usefulness. These two variables can explain aspects of user behavior which explains that user perceptions will determine their attitude toward using the technology. This model more clearly illustrates that acceptance of technology use is influenced by usefulness and ease of use. Perceived ease of use has a causal effect on perceived usefulness. Feature design directly affects perceived usefulness and perceived ease of use. Because design features fall into the category of external variables in Fishbein's paradigm, they are not theorized to have a direct effect on attitudes or behavior,

Usefulness and convenience are important aspects of e-marketing, including marketing *kue lebaran*. *Kue lebaran* is the prima donna at the moment of the holy month of Ramadan. From entering the month of Ramadan until the 21st day, people flock to prepare *kue lebaran*. Currently, *Kue lebaran* is not only sold in traditional markets, shops, mini markets, and even supermarkets. However, it has been sold on several e-commerce and social media, one of which is Twitter. The use of technology in marketing makes it easier for consumers to place orders and even search for the desired product/service.

This study aims to determine e-marketing in the sale of *kue lebaran* from the perspective of the Technology Acceptance Model using Social Network Analysis.

METHOD

This study uses a netnographic study. Netnography is an online research method derived from ethnography, is to understand social interactions in the context of contemporary digital communication. Netnography is a specialized practice related to data collection, analysis, research ethics, and representation, which is rooted in the user (Kozinets, 2006). This research approach is social network analysis (SNA). According to Wasserman et al.(1994), Social network analysis is based on the assumption of the importance of relationships between interacting units. The use of social networks analysis was chosen because this research is about online communities, especially Twitter, and the way Twitter users interact in cyberspace.

In SNA, there are several things that play an important role in data analysis, namely users, correlation of user interactions, groups, sub-groups, and tweets. The users in question are people who are involved in tweets, comments, or likes regarding searches in data collection, the users in question can be individuals, communities, or organizations (Persons or individuals, for example, @anthyarhas, @jokowi, @marcmarquez93), (community, example @komunitasnarasi @lenterasajak) (business entity, example: @UNM_Makassar, @Kemdikbud_RI, @KemenBUMN). Correlation is the bond of certain tweets that can link 1 tweet with other tweets, correlation refers to the collection of bonds of a certain type measured in users from a certain set of users. The bond itself only exists between certain users. A group is a collection of all users whose relationship is measured in terms of the search performed. Whereas sub-groups are related users because tweets are related to each other in general searches. To be able to form sub-groups Users must be able to interact regarding searches. Tweets are statements or arguments expressed by users through social media.

The data is obtained from tweets on the Twitter application, the data obtained are tweets from April 2-20 2022. The data analysis uses the ATLAS.ti application. This study uses the keyword "jual kue lebaran", including only tweets, without retweets and images. Meanwhile Create codings from: authors, mentions, hashtags, and query hashtags only. After doing network analysis, tweets that stand alone or have no relationship with other tweets will be eliminated or excluded.

RESULTS AND DISCUSSION

The results of data analysis show that during April 2-20 2020, 89 account owners tweeted about “jual kue lebaran”, 42 last Twitter mentions, and 48 Twitter mentions.

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Code Group Manager | D 2: Twitter Import: Jual kue lebaran |
1 | Twitter Import - Query: Jual kue lebaran - Tweets: 42 (Requested: 50) - Retweets: Excluded
2 | @rakzyrn_ nyokap ku yg jual kue lebaran banho
3 |
4 | Agnes @NanaDiana * @NanaDiana * @NanaDiana * @NanaDiana * @NanaDiana *
5 | Waktu ke pasar, saya ga ajak anak2, sengaja, demi menjaga perasaan mereka soalnya yg jual kue lebaran udah bertebaran
6 | beberapa hari ini mereka selalu nanya kenapa belum beli kue lebaran juga, saya cuma bilang ke mereka doain aja pokoknya...
7 | Nyani yang jual kue lebaran
8 |
9 | @NanaDiana * @NanaDiana * @NanaDiana * @NanaDiana * @NanaDiana *
10 | Yang lagi cari kue lebaran nihhh kawan aku jual dijamin 100% halal.....
11 | Area Surabaya
12 | silahkan di dm kalau minat yaaa akunya
13 | @QueenLucky14
14 | Lewat TL bantu RT yaaa makasih pic.twitter.com/DolsAVexsQpic.twitter.com/DolsAVexsQ
15 | [bgr] guys mau cerita. Jadikan mamah ku itu emang jual kue lebaran setiap tahun dan tahun ini mau coba jualan hampers karena
16 | temenku ada yg nyari dan mau pesen lumayan banyak. Tapi ternyata ga jadi dan aku bingung bilang ke mamahku nya gimana ya?
17 | Kasiar juga ?
18 |
19 | @NanaDiana * @NanaDiana * @NanaDiana * @NanaDiana * @NanaDiana *
20 | Tadi aku abis Bantuin tante sebelah rumah bungkus kue lebaran buat di jual
21 |
22 | @taengerine505 wkwk
  
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Figure 1. Jual Kue lebaran Tweet Metadata
Source: Output ATLAS.ti

The next step in network analysis is to perform coding analysis, with organic types. After the network analysis is obtained, the tweets that do not correlate are removed from the network. The results of the network analysis carried out are presented in Figure 2:

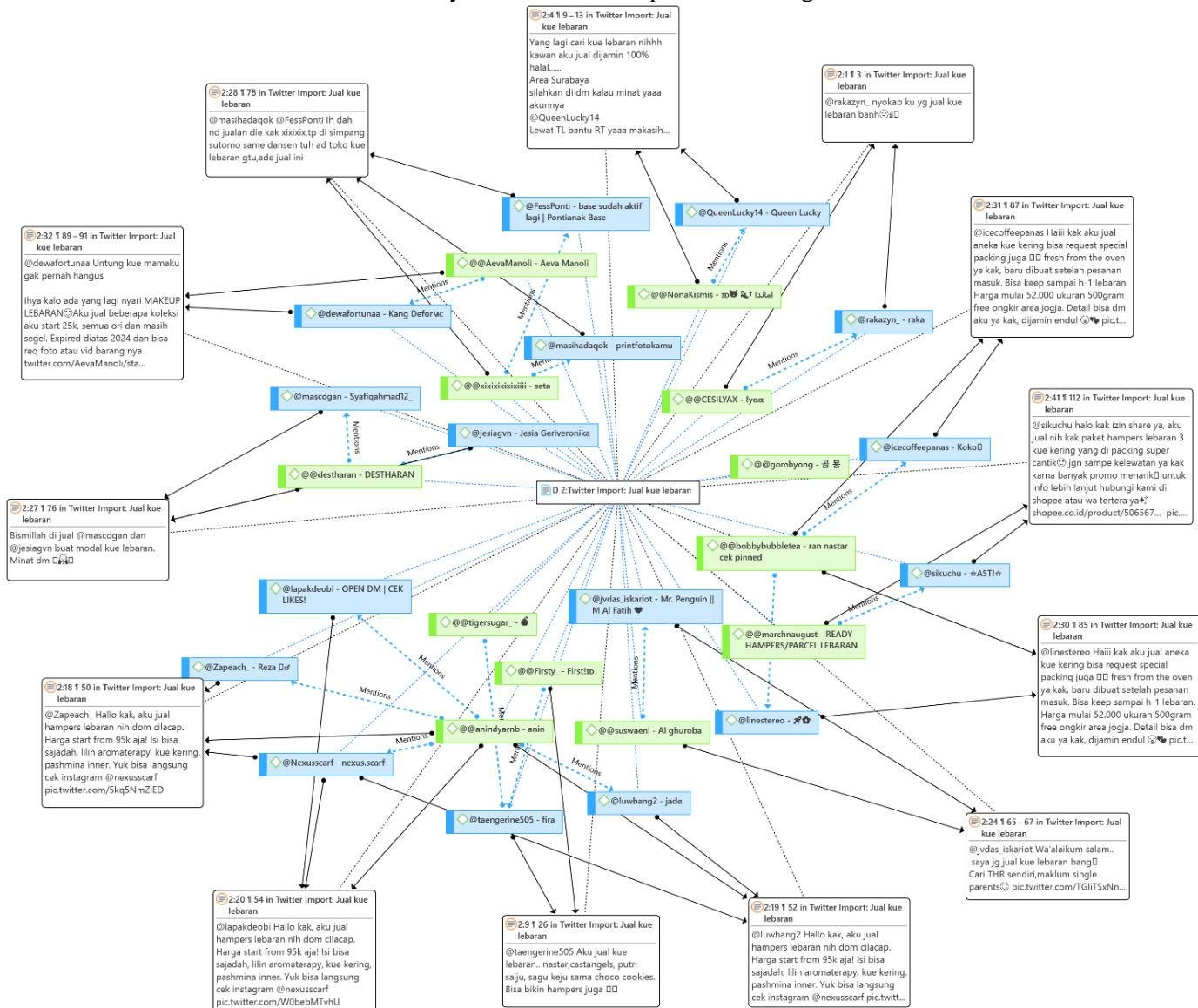


Figure 2. Network Analysis

Source: ATLAS.ti output that has been processed by researchers

Based on the network analysis in Figure 2, it is found that the *kue lebaran* producers on Twitter market their sales in the form of general promotional tweets or mentions to several accounts.

There are also some Twitter users who do marketing for products sold by parents. In addition, there are several tweets from potential consumers who want to find *Kue lebaran* that are marketed online. By using the Twitter social media application, buyers and sellers can interact about a product. Prices marketed on the Twitter application also vary, ranging from prices below Rp. 30,000 to Rp. 95,000

Furthermore, based on the word cloud analysis, several popular words in the tweet were obtained, as presented in Figure 3:



Figure 3: Word Clouds about *Kue lebaran*
ATLAS.ti output that has been processed by researchers

Based on Figure 3, the words that appear most frequently in tweets are *jual* (selling), *kue* (cake), *lebaran* (eid), *kuekering*, *hampersidulfetri*, *wa*, *dm*, *kak*, and so on. There are some interesting keywords in marketing products, namely *wa*, *dm*, and *sis*. *Wa* stands for WhatsApp which is used by manufacturers to follow up on orders from potential consumers, *dm* is an abbreviation for direct messages, which is one of the features of the Twitter media to be able to send messages. While *kak* is a term that is often used by producers to establish intimacy with potential consumers.

From the perspective of TAM, usability and convenience can explain aspects of user behavior which explains that user perceptions will determine their attitude toward using the technology. Twitter users' acceptance of e-marketing has a causal effect on perceived usefulness. Both producers and consumers feel the benefits of existing technology by marketing products and selling products for producers. As for consumers, it is easier to order and deliver services prepared by producers.

Davis (1989) defines perceived usefulness as a person's level of confidence in the use of a particular subject that can provide benefits to people who use it. The benefits derived from e-marketing for Twitter users are increasing productivity, enhancing effectiveness, developing job performance, and being more economical. Ease of use is a person's level of confidence that the computer can be easily understood.

According to (Adams et al., 1992), the intensity of use and the interaction between the user and the system can also indicate the ease of use. The system that is used more often indicates that the system is easier to understand, easier to operate, and easier to use. The ease of use of a computer depends on a person's level of confidence that the computer can be easily understood and the system used can be easily understood, operated, and used.

Marketing is a communal development, which recognizes consumer wants, concentrates on merchandise or services to fulfill those needs, and tries to direct consumers to the suggested merchandise or service. According to Taherdoost & Jalaliyoon(2014)“Marketing is very important for the development of any business. The marketing team (marketers) tries to make consumers understand the goods or services during the marketing procedure. Businesses achieve success when they consider their merchandise, services, and consumer needs. Marketing is the procedure of making or doing an organization to sell products or services that not only people need, but also want to buy. Therefore, the ability to create a proposition or benefit for customers who derive value from the product or service is a hallmark of good marketing.

According to Eid & El-Gohary (2013), “E-marketing can be seen as a new modern business practice and philosophy related to the buying and selling of goods, services, information and ideas through the Internet and other electronic means”.One phrase that needs to be expressed is viral marketing(Akyol, 2013; Dăniașă et al., 2010; Miller & Lammas, 2010; Scott, 2009). Viral marketing is a perception that grew with the advent of the Internet. Throughout social intercourse, viral marketing has been expanded and declared a new version of word of mouth marketing. According to Eriksen & Hemmingsen (2008), viral marketing can be done by various methods, whether funny, surprising, or profoundly impactful, lots of small text, images, or even videos are sent from one user to another for various reasons.

The opportunities presented by E-marketing by social media, especially Twitter, for business actors play an important role in conducting marketing activities by business because of their unique characteristics both as a market and as social media. Twitter has the potential to directly reach a large number of markets in a fast and economical way. With a relatively low investment, almost anyone who can read and write and owns an electronic device and internet network can get the opportunity to develop a successful economic business in a way that they have never done before.

CONCLUSION

Based on the results of data analysis, it is known that Lebaran cake producers on the Twitter market their sales in the form of general promotional tweets or mentions to several accounts, several Twitter users do marketing for their products or those sold by their parents. In addition, there are several tweets from potential consumers who want to find *kue lebaran* that are marketed online. By using the Twitter social media application, buyers and sellers can interact about a product. Some unique keywords appear in data analysis such as wa, dm, and kak.

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