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PREFACE

Assalaamu ‘alaykum warahmatullahi wabarakaatuh,
The CITSM 2021 is in the general area of communication and information technology. It provides a forum for presenting and discussing the latest innovations, results and developments in IT Management & organizations, IT Applications, Cyber & IT Security, and ICT. The main objective of this conference is to provide a forum for engineers, academia, scientist, industry, and researchers to present the result of their research activities in the field of Computer and Information Technology. The primary focus of the conference is to create an effective medium for institutions and industries to share ideas, innovations, and problem-solving techniques.

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event successful.

Wa billahi taufiq wal hidaayah.
Wallahul muwaffiq ila aqwamit-tharieq.
Wasalaamu ‘alaykum warahmatullahi wabarakaatuh.
Arifah Hidayati (Organizing Chair)

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The effect of AIDA model to purchasing decision: the case of *HappyFresh* Instagram promotion

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***Abstract*—**The high use of internet especially social media has made this virtual world as a marketing tool. Therefore, this study aims: to determine the effect of Instagram-social media promotion on purchasing decisions, the level of AIDA (Attention, Interest, Desire and Action) among consumers; its influence on purchasing decisions; and to determine the suitable AIDA model for fresh products. The research population is Instagram followers *@HappyFresh_id*. The sample is 100 people based on five-percent-error-probability of Slovin formula, and it is derived by a simple random sampling technique. The data collected during March-April 2021, and adopting multiple linear regression analysis, proves AIDA simultaneously influences purchasing decisions with a determination level of 67%. Likewise, the interest, desire, and action have a significant effect on buying decisions. Accordingly, the research presents three variations of AIDA model for effective social media marketing, but it needs further analysis

Keywords— Promotion, Instagram, AIDA, purchasing decision, HappyFresh

I. INTRODUCTION

The development of virtual world is increasing day by day. According to Ministry of Communication and Information [1], the internet users in Indonesia currently reach 63 million people. From the number of internet users, 95 percent of them are to access social networks. Based on Hootsuite (We are Social) survey data [2], active social media users in Indonesia are 59% (160 million) of Indonesia's 270 million population. The most actively used social media platform is Instagram, which is 79% of social media users in Indonesia.

The increasing use of the internet in Indonesia has given rise to new thinking in terms of marketing technology. The digital era with the use of the internet and smartphones provide many changes to people's behavior in shopping. Marketing a product online is a solution to increase revenue. Utilization of the right online promotion can influence consumer purchasing decisions. Consumer interest in online promotion has its own path, which can be measured and analyzed using the AIDA (Attention, Interest, desire, and Action) model approach [5].

The AIDA is a hierarchical model that describes the steps consumers take in responding to advertisements. The attention is the stage where consumers pay attention to advertisements. The interest is the stage where consumers become interested in the advertised product. The desire is the stage where consumers wish a brand or product after getting information about the brand or additional information in connection with the advertising message conveyed. While, the action is the stage where consumers take action to know and identify the product more deeply, which culminates in an action in the form of purchasing a product or choosing a brand to satisfy their wants and needs [3; 5]. But, fortunately, this hierarchy of effect could be different depend upon media and product to sale, in which it needs further exploration for more effective promotion.

In the E-Commerce business in Indonesia, the types of goods or services that were sold the most in 2019 were food, beverages and groceries, which was 30.95 percent of the total businesses that sampled E-Commerce [4]. Start-up activists are now starting to expand their business into the food sector such as vegetables and fruits. The question is what hierarchical effect suitable for these products?

In the light of this reason, this research paper focuses on the case of *HappyFresh*, in which it is a pioneer in online and on-demand grocery shopping services in Indonesia and a pioneer in home shopping delivery services in Southeast Asia, especially in Indonesia, Malaysia and Thailand. The *HappyFresh* company takes advantage of the large urban community who values time and convenience. The *HappyFresh* cooperates with many wholesale vendors who are trusted and have a high level of consumer loyalty, so the *HappyFresh* focuses on replacing the physical presence of consumers at the vendor's store location. The consumers shopping daily through online applications no longer need to be physically present to conventional stores.

The influence of online promotion on sales of agricultural products can ultimately be symbolized by consumer purchase decisions. The consumer decisions are important because it determines the size of a company's turnover. Therefore, based on four key variables (attention, interest, desire and action), this study aims to analyze the effect of Instagram promotion on purchasing decisions. In the light of each AIDA effect to the purchasing decision,

this research questions the suitable AIDA model for social media promotion and fresh products. By this new AIDA model, the social media promotion could create some improvement to make it more effective and efficient.

II. FRAMEWORK ANALYSIS AND HYPOTHESIS

The AIDA is one the hierarchical effect in a product promotion. Referring to Rehman *et al.* [5], previously the concept is AID in which the promotion is how to attract potential consumer attention, to maintain consumer interest, and how to encourage the desire to purchase the product offered. The next stage, the concept has been changed to become AIDA. The A (action) is one of the main stage in advertising because the main goal of promotion is "action" to purchase. According to Rehman *et al*. [5] who explored the various sources, this concept of hierarchy has developed and changed. The AIDA is not enough but actually it needs satisfaction. Thus, the concept becomes AIDAS. In addition, the consumer confidence in certain inhabitant is also very important which make the concept develop to be ADICA, in which the promotion should hierarchically become the potential consumer attention, encouraging desire, for certain inhabitant, make the confidence and finally lead the action.

The changing of AIDA concept is depend upon the promoted product and applied media. For the website promotion, the attention to the element of website is prerequisite for product purchase. The research which was conducted for students who have ever purchased via online marketing proves the elements of website which make attention consist of visual appeal, ease of use, trustworthiness and convenience [8]. From this research experience, hypothetically, the attention to the virtual media encourages buying decision. However, the research experience of Ullal and Hawaldar [9] in in various super markets in India proved the interest and desire to products is the main determinant for product buying. Thus, hypothesis of AIDA effect to the product purchase gets stronger.

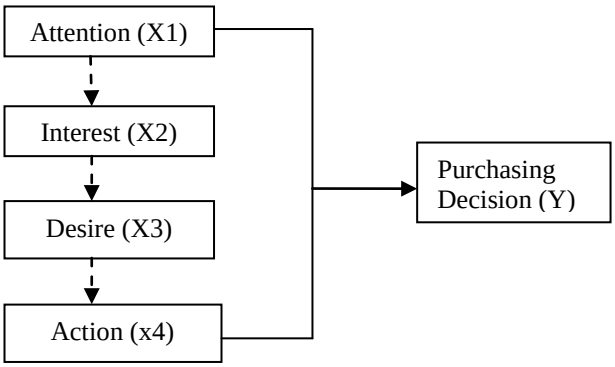

FIGURE 1. THE FRAMEWORK ANALYSIS

The type of promoted products should also be considered. The fashion, fresh product (fruit and vegetable), and industrial goods are of course deferent. Rehman *et al*. [5] presented the different product leads the different hierarchical effects. The hierarchy effect of think-feel-do could be applied for the high involvement product, especially for high price goods. For the emotionally involvement goods, such as fashion, according to Rehman *et al*. [5], the hierarchy effect of feel-think-do could decisively be applied. The hierarchy effect of feel-think-do is suitable for low involvement goods or for the products that does not need much time to buy, while, the hierarchy of think-do-feel is frequently applied for the habit goods.

In the light of above discussion, the sequence of AIDA hypothetically influences the purchase decision of fresh product. For more clear, the hypothesis of this research is: attention, interest, desire, and action have a significant effect to the purchasing decision of fresh product promoted by *HappyFresh* in Instagram social media (Figure 1).

The AIDA's effect is actually hierarchical. The X-1 could probably influence X2; and similarly the X2 will influence the X3. The X3 accordingly will influence X4. But, unfortunately, this research merely analyzes the influence of each AIDA to the purchase decision (Y). The research does not also provide the indirect effect of attention the purchase decision though interest, desire, and action. Actually, by considering the indirect effect, the sequence of AIDA's effect probably will also change. The next research should complete the less of this research.

III. MATERIAL AND METHOD

The population of this study is the owner of social media accounts who follow the Instagram account *@HappyFresh_id*. The research sample was 100 respondents, defined by 5 percent error probability of Slovin formula, and drawn by simple random sampling, namely taking samples from the population randomly without regarding the population strata because the population was relatively uniform [6].

TABLE 1. OPERATIONAL DEFINITION OF VARIABLE

No	Variable	Operational Definition
1	Attention	Consumer responses to the ease of capturing promotional messages conveyed through images and videos uploaded on Instagram social media, measured by the Likert Scale
2	Interest	Consumer responses regarding interest in the products offered by *HappyFresh* presented on Instagram social media
3	Desire	Response to the desire to buy products offered by *HappyFresh* which are presented on Instagram social media
4	Action	The tendency of consumers to buy products after getting information through Instagram online promotions
5	Purchase decision	Stability, habits, providing recommendations to others in purchasing products and making repeat purchases of products after considering various information that supports decision making

The independent variable of this research is attention (X1), interest (X2), desire (X3), and action (X4). The dependent variable is purchasing decision (Y). Each operational definition of variable is presented in Table 1.

The primary data of this study was obtained using a questionnaire sent online via Direct Message to Instagram followers *@happyfresh_id*. The AIDA tendency is measured in four-level of Likert scale. Before being used, the questionnaire was first tested for validity and reliability. The level of reliability of instrument is using the Cronbach Alpha criteria, in which it is more than 0.60 [7]. Data collection was conducted during last March-April 2021.

Furthermore, to measure the effect of AIDA on purchasing decisions simultaneously, this study uses multiple linear regression analysis with F test; and to determine the effect of each AIDA variable partially on purchasing decisions, this study uses the t test.

III. RESULT AND DISCUSSION

A. Respondents Characteristics

The characteristics of the respondents in this study are intended to describe the demographic background of *HappyFresh* consumers, including gender, age, education level, occupation, and monthly income (Table 2).

Referring to Table 2, most of the respondents are women (69%), while only 31% are men. In terms of age, the majority of respondents (87%) are 20-30 years old. Only 13% of respondents aged 30 years and over. Furthermore, regarding the level of education, the majority of respondents (66%) graduate from university. Those who get high school education, junior high school, or the equivalent – such as Islamic junior high school and Islamic senior high school – are only 34%. Viewed from the aspect of work, most of them are private employees (44%), respondents who are students/university students are 33%. Meanwhile, the cumulative status of respondents as housewives, entrepreneurs, and civil servants is 23%. Regarding income, some consumers earn <IDR 2,500,000, which is 49%.

Thus, consumers of *HappyFresh* product are dominated by women, graduation of higher education, private employees and earn above the average minimum wage

TABLE *2*. RESPONDENT CHARACTERISTIC

Characteristic	Category	%
Sex	Male	31
	Female	69
Age	20-30	87
	31-40	5
	41-50	8
Education Level	UHS	2
	SHS	32
	University	66
Job	Private Employees	44
	Housewife	8
	Entrepreneur	9
	Civil servant	6
	Student/University Students	33
Income/Moth (000)	< IDR 2,500,000	49
	IDR 2,500–5,000	23
	IDR 5,000–10,000	21
	IDR 10,000– 20,000	4
	> IDR 20,000	3

Source: Primary data, 2021 (processed)

B. AIDA Level of Consumers

This study also uses descriptive analysis to determine the tendency of each AIDA sub variables. The descriptive data is a prelude to regression analysis. In identifying the tendency of each AIDA variable, this study uses the average value of all answers for each research variable. The four levels of answers of Likert scale for all statements in measuring AIDA are categorized into three class intervals (low, medium, high), using the following formula:

$$\text{Interval} = \frac{\text{ideal maximun value} - \text{Minimum ideal value}}{\text{Interval Level}} = \frac{4-1}{3} = 1$$

The ideal maximum value of each Attention-Interest-Desire-Action measurement is 4; while the minimum measurement value is 1. Therefore, the AIDA tendency for each respondent can be categorized into three levels with the following conditions: the low AIDA is for average score of 1.00 – 2.00 intervals; the medium category is for interval of 2.01 – 3.0, while the high AIDA is merely for respondents who obtain the AIDA of 3.01 to 4.0. The distribution of respondents based on AIDA trends is presented in Table 2.

TABLE 3. THE AIDA LEVEL OF *HAPPYFRESH* CONSUMER

AIDA Category	Consumer Distribution by AIDA (%)			
	A	I	D	A
High (3.01-4.00)	36	32	29	19
Medium (2.01-3.00)	61	65	66	77
Low (1.00-2.00)	3	3	5	4

Source: Primary data (Processed)

Thus, the AIDA tendency of Instagram social media users at *@happyfresh*_id is mostly in the medium category with a frequency value of 2.01 – 3.00. This means that most consumers have paid attention, expressed their interest in the *HappyFresh* promotion on Instagram, then wanted to buy the product, and took action to purchase the product being promoted. This also illustrates that promotion and marketing using social media, especially Instagram, is relatively effective and can be used. But, fortunately, this tendency needs further exploration about effect of AIDA simultaneously as well as partially to the buying decision.

C. The Partial Effect of AIDA on Purchasing Decision

As previously presented, the four elements of AIDA will give the significant effect of purchasing decision. But, unfortunately, this hypothesis could not be applied for "Attention" as the first element of AIDA. In the light of P-value consideration, in which the number is relatively high close to 1 or more than 70% (Table 4), the hypothesis about the influence of "Attention" to the purchasing decision is strongly rejected, indicates the absence of this effect. If we accept the existence of this influence with strongly high P-value, it means that this conclusion has the error probability which more than 70%. In addition, the regression analysis proves the negative effect of attention to the buying decision. The negative sign indicates a unidirectional relationship between the attention and the purchase decision

of fresh products. The higher the attention is, on the contrary, the lower the desire to buy.

TABLE 4. THE EFFECT OF AIDA TO THE BUYER DECISION

Variable	Coefficient	$T\text{-}_{count}$	$F\text{-}_{count}$	Sign.
Constant	0.557	0.647	48.123	0.000
Attention	-0.041	-0.335		0.739
Interest	0.402	3.023		0.003
Desire	0.519	3.616		0.000
Action	0.352	2.479		0.015
$R^2 = 0.670$				
Sig. = 0.000				
$T\text{-}_{table} = 1.998$				
$F\text{-}_{table} = 2.46$ ($\alpha = 0.05$)				

Therefore, the attention factor does not influence the purchasing decision. The influence of attention could probably be directed to the higher the interest and desire to the certain product, especially for the fresh product promoted and sold by *HappyFresh*. From this research finding, actually it needs further analysis of the indirect effect of attention to the purchasing decision of fresh product through the interest and desire.

The existence of probable indirect effect of attention to the purchasing decision is strengthened by the fact that the interest and desire have a highly significant effect on the purchasing decision. In the light of P-value criteria, the probable error to conclude that the interest has significant effect to the purchasing decision of fresh product is less than 0.01 (Table4). The similar tendency could also be witnessed in the fact of desire influence on the buying decision. Based on the P-value criteria, the probable error to conclude that the desire has strongly significant impact to the buying decision is relatively small, less than 0.001.

The third sub variable of AIDA is the action, which indicates the consumer prepares to purchase the promoted product. In this research the "action" has also significant influence on purchasing decision. The P-value criteria prove the small probable error to conclude the effect of "action" to purchasing decision, in which it is less than 0.002. Therefore, this research in the light of this P-value criteria conclude that "action" significantly influence buying decision of fresh products.

The research finding that concludes the existence of significant effect of interest, desire, and action to purchasing decision of fresh product is also evidenced by the research conducted by Huda and Prasetyo [10]. The researchers stated the interest, desire and action has a strong influence on purchasing decisions, and became the most dominant factor in analysis of social media promotion effect.

D. The Total Effect of AIDA to Purchasing Decision

The effect of AIDA to the purchasing decision should not be concluded merely by the partial effect, but the total effect should also be considered. The R^2 (square) in regression analysis is an evidence of total effects of several independent variables to dependent variable. If the total effect is close to one or to one hundred percent, it means the effect of all independent variables is getting stronger. In this research, the coefficient of determination (R^2) is 0.67 (67%) (Table 4). These results prove that the four independent variables, namely attention, interest, desire and action simultaneously contribute 67 percent to the purchasing decision of fresh product promoted by *HappyFresh* in Instagram social media marketing.

The remaining of 33% could probably be explained by other variables outside of this study. Therefore, it should be considered, that there are many factors that influence consumer purchasing decisions of fresh products. These factors can include price, location, quality of product, the consumer perception of the product benefit, and so on.

The above results fortunately gets stronger because it is in line with the theory of Widyastuti [11] where in the process of selling a product and service in a promotion including the social media promotion must succeed to get an attention, generate interest, encourage desire, which finally leads consumer purchasing decisions. Fortunately, this research finding provided in this paper needs a further detection about the remaining variables that influence the purchasing decision in social media promotion.

E. The New Model of AIDA Effect to Purchasing Decision

In the light of regression analysis, the attention does not influence on purchasing decision. It could be the major finding of this research; and it could also the novelty of this research. It should be emphasized in this context, the AIDA effect is commonly perceived as a hierarchical model, in which the attention will encourage the consumer interest. The consumer interest, for the second stage, will lead the consumer desire, and finally the desire will bring the consumer to an action related to buying process. However, in the light the result of regression analysis in this research, the sequence effect of AIDA model could be diverse. The attention does not effect to the buying decision, but it probably influences the consumer interest, and the interest is what influences directly to the purchasing decision; and the attention has indirect effect to the purchase decision through interest (Figure 2). It of course needs further analysis and exploration.

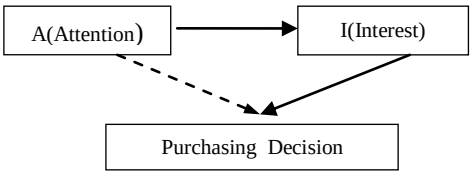

Figure 2. The First Variation of AIDA Effect

By the considering the indirect effect of attention the purchasing decision via the interest, it could probably the new model of AIDA effect which can be symbolized by the sequence of A-I-A. But, actually, it needs further research.

The attention could also directly influence consumer desire, and the desire itself is what influences strongly the buying decision (Figure 3). The effect of attention could also directly to the action related to the buying process such as knowing price, quality of product, and how to pay, and so on that will come to a purchase decision (Figure 4). But

attention could furtherly be explored about its indirect effect to the purchase decision through desire and action. In this case, we could probably acquire the new sequence of AIDA, in which it is A-ID-A, but it also needs a further research outside of the scope of this research paper. The research should specially be in social media promotion and specifically for fresh product, like fruit and vegetable.

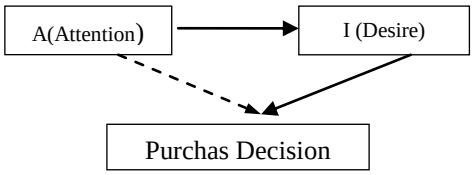

Figure 2. The Second Variation of AIDA Effect

The diverse of AIDA effect model is not amazing. Previously, the sequence of AIDA is Attention-Interest & Desire-Action (A-ID-A). Other sequence in the context of advertisement is think-feel-do. But for certain product, the hierarchy effect becomes feel-think-do such as for fashion which strongly related to the human's emotion [5]. Therefore, the variation of AIDA's sequence effect can be occur because of the different media and product.

For the fresh product advertised in Instagram social media, the sequence could be A-ID-A, A-I-A, and A-D-A, and may be the AIDA is not enough but should be completed by satisfaction and trust. The reasonable price is other factors that should be considered.

In the light of this research, therefore, the more important thing for fresh product advertised in social media is how to make the potential consumer pay high attention to massage. It could be creatively presented by picture, film, audio, audio-visual, and reasonable price.

V. CONCLUSION & RECOMMENDATION

The factors of attention, interest, desire and action simultaneously affect fresh product purchasing decisions at *HappyFresh* online shopping service, with a coefficient of determination (R^2) is 0.67 (67%). Partially there are three AIDA variables that have a significant effect on purchasing decisions, namely: interest, desire, and action. Meanwhile, attention has no effect on purchasing decisions. The attention could probably have indirect effect to the purchasing decision though interest and desire. But this research is not focusing on the indirect effect of attention to the purchasing decision. Therefore, the next research should focus on this indirect effect. By considering the indirect effect of attention to the purchasing decision, the AIDA could become A-I-A, A-D-A, A-ID-A, and A-ID-AS.

Based on this conclusion, we would recommend further research, especially for fresh product, which includes: (a) it needs strongly the further detection about the indirect effect of attention to purchasing decision via interest, desire, and action; (b) needs the further research about the influence of social media creation or website variation to generate the attention of promotion contents; (c) the research about the impact of AIDA to the consumer satisfaction is valuable; (d) the impact of satisfaction to customer loyalty to certain product promoted in social media.

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