

# Augmented Reality as the Implementation of Digital Marketing 5.0 (Study Case: LPK Bali Aviation Tourism Center)

Ni Nyoman Puduk Sari<sup>1</sup>, A.A. Istri Ita Paramitha<sup>2</sup>, Tiawan<sup>3</sup>, Ni Luh Putu Ning Septyarini Putri Astawa<sup>4</sup>

<sup>1234</sup> STMIK Primakara, Indonesia

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## ABSTRACT

Gaining the attention of customers to raise our product's brand awareness is not an easy task, good planning and strategy will be needed to achieve it. This proves to be a big challenge for many companies, especially for Bali Aviation Tourism Center. Based on the latest social media trends the researcher suggested Bali Aviation Tourism Center to use Marketing 5.0 method. Marketing 5.0 strategy provides a new perspective on applying the technology from the social media Instagram, besides the advantages of creating content planning in using data driven marketing and predictive marketing, adding gamification impression using Instagram filter based on augmented reality in augmented marketing, being more personal with contextual marketing, and as far as keeping up with the rapid changes with agile marketing. Bali Aviation Tourism Center is a vocational education equivalent to Diploma 1 that is operating in the hospitality industry which provides students with trainings before working at the airport. This research will use descriptive quantitative method with marketing 5.0 for the analysis technique. The researcher applies marketing 5.0, using platforms such as Semrush, Google Trends, Spark AR, Canva, Watsap.id, and Trello. Research will then be done to find out the increase brand awareness of the company through Meta insight.

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### Corresponding Author:

**Ni Nyoman Puduk Sari**

Information System,

STMIK Primakara

Jalan Tukad Badung No. 135, Renon, Denpasar Selatan, Kota Denpasar, Indonesia

Email: pudaksari24@gmail.com

## 1. INTRODUCTION

One of the popular social media for adolescent is Instagram. Instagram is one of the social media that shows attractive visual aspects thus it suitable for promoting products and services. In 2022 the number of active Instagram users in Indonesia has reached 92.62 million, and it will continue increasing until 121.44 million in 2025. The total potential reach of advertisements on Instagram in 2022 is 99.15 million (Tresnawati & Prasetyo, 2018). In this broad area, digital marketing on social media allows a brand to achieve its marketing goals at a relatively low cost. With these advantages, Instagram can be more effective in strengthening brand awareness through

entertainment activities, interactions, trends, advertisements, and algorithm customization contributing to increasing brand awareness (Rahman & Panuju, 2017).

Brand awareness describes the extent to which a brand is known by consumers. In terms of digital marketing, brand awareness is the first step to instill a brand in the minds of potential consumers, before successfully leading consumers to take other steps such as buying a product or choosing a service. Users interact with each other with fellow social media users, this offers high opportunities to disseminate information about brands and products, such as saving time, costs, and great convenience to reach users. For this purpose, many companies create their own brand profiles on social media communication channels and develop activities that will engage consumers by sharing content. The types of content shared including online product information, discounts, advertisements and ongoing promotions (Foroudi, 2019).

One of the brands that create their own profiles on Instagram social media channels is the Bali Aviation Tourism Center. Bali Aviation Tourism Center is a vocational education for primary experts equivalent to Diploma 1 engaged in the hospitality industry. There are four majors at the Bali Aviation Tourism Center, namely Airport Handling Management, Aviation Security, Korean and Japanese. This company is located at Jalan Tukad Barito No. 18, Denpasar. Currently, the Bali Aviation Tourism Center has carried out sales and marketing processes both offline and digital marketing. In the digital marketing process, the Bali Aviation Tourism Center has used a social media marketing strategy using the Instagram social media platform. The target market for students is high school or vocational school graduates aged 18 to 25 years who live in East Java, Bali, East Nusa Tenggara and West Nusa Tenggara (Wahyuningsih, n.d.).

This problem was obtained from the results of observations at the Bali Aviation Tourism Center company, the company had implemented a digital marketing strategy, and 96% of interviews with 25 students and management they used Instagram to view information about the campus, but it was still not used optimally. During August 2022, the Bali Aviation Training Center experienced a drastic decrease in the number of Instagram insights, when compared to May and July, you can see in figures 1.1 and 1.2. From the problems faced by the Bali Aviation Tourism Center makes researchers suggest to create a digital marketing strategy on Instagram that is more interactive, one of the strategies is using Instagram filters.

A new feature that is very popular is Instagram reels, it is the feature that can be used to design videos, some photos, and add music to make it interesting with several tools in it. An additional interesting feature on Instagram reels is adding Instagram filters. Instagram filters are a way to modify the original image in various ways, for example adjusting contrast, brightness, and facial tone. This modification not only makes the image more aesthetically pleasing, but can also add a certain style to the feature map with the help of Augmented Reality technology. A virtual interaction where users can interact in real terms on an object called Augmented Reality. Augmented Reality is described as the ability to integrate content with other multimedia graphics (Amayah & Gedro, 2014).

The use of Instagram filters with Augmented Reality on Instagram is expected to solve the problems faced by Bali Aviation Tourism Center. By utilizing Augmented Reality, it is expected to increase brand awareness to be more interactive and effectively increase interest in the desired target users. The higher awareness of a brand is directly proportional to the target number of students who are registered and can be obtained by the marketing team. Large companies such as IKEA, Lacoste, MTV, and Cadbury have adopted the use of Augmented Reality and are significantly able to increase revenue (Halim et al., 2019).

Similar research has been conducted by Lin Yifang, in a study entitled Exploring the Augmented Reality Marketing and Motivational Model Combined with Inspiration Model to Enhance Museum Visits, where augmented reality is able to increase the number of physical visitors to their museum (Wu et al., n.d.). This rapid increase was of course driven by gamification or new things felt by visitors which made their curiosity and desire to feel also increase. With this differentiation, visitors are able to refer their arrival to their closest relatives. Another study was also mentioned by I Komang Angga Maha Putra the title of the study is Design of Augmented Reality-Based Instagram Filters with Spark AR Face Masks on New Media College Accounts in 2020. Where the use of Instagram filters succeeded in making New Media College gain brand awareness from new Instagram visitors reaching 52,200, with 8,800 opened and used 2,000 times by various accounts.

Regarding to the problems that occurred at Bali Aviation Tourism Center and the results of similar research, the researcher decided to increase brand awareness by using the implementation of marketing 5.0 and augmented reality on Instagram filters, with expectation for increasing exposure and new followers within the company so as to increase Instagram insight in the next period.

## 2. RESEARCH METHODS

### 3.1 Method Study

A method very needed in do something study scientific For can reach desired destination \_ in a manner clear . Method research used \_ in problem This is use approach descriptive quantitative meaning \_ researcher do research on results , conditions , and related objects with the problems studied (Zellatifanny & Mudjiyanto, 2018) . Collected data from study This form results from research and assistance with description explanation in form sentence , image , in systematic in period time certain . Researcher use method descriptive quantitative followed with technique marketing analysis 5.0.



**Figure 3. 1** Element of Marketing 5.0

5 Elements from Marketing 5.0 itself is *Data Driven Marketing*, that is collect and analyze an inside data amount big can \_ obtained at the time there.

### 3.2 Data Types and Sources

On method quantitative or inner data type form number For evaluate implementation of marketing 5.0, research This using primary data which obtained direct that is amount the use of Instagram filters at the Bali Aviation Tourism Center is presented on the Spark AR platform which contains information about amount reach , number of Instagram filters viewed , opened , saved , used , and shared . Then this data will described as support the figures are presented on the dashboard of Spark AR and Instagram ( Sugiono , 2016) .

### 3.3 Tools and Materials

As for the tools used in implementation of the Instagram filter in the form of device software and devices hard as following :

1. Device hardware and components device minimum software required
  - a. System operating Windows 10 (64 bit) or MacOS 10.14;
  - b. Capacity 4GB RAM memory;
  - c. CPU ( if Intel) Intel Core i3 2.5Ghz, or AMD Bulldozer/Jaguar/Puma/Zen with SSE4.1 instruction set ;
  - d. CPU ( if Apple ) M1 or above new ;
  - e. *Graphics processor* Intel HD Graphics 4000, Nvidia GeForce 710, AMD Radeon HD 6450;

- f. Monitor resolution of 1280x768 pixels;
2. Device Soft
  - a. Google Forms  
A device soft form the form used For do observation interview on identification problem . Device soft free version ;
  - b. Spark AR version v153  
Application used \_ For create Instagram based filters *Augmented Reality*. Device soft free version;
3. Meta Business Suite  
Application For see whole *insights* or report follower from social media Instagram. Device soft free version ;
4. Spark AR Studio  
Website for open *dashboard* , upload , until measure Instagram filter results . Device soft free version ;
5. Instagram  
Social media used \_ For using filters. Device soft free version ;
6. Canva  
Tools used For make *landing pages* in *contextual marketing*. Device soft available in free version or paid Rp 769,000,- per year ;
7. Wasap.id  
Tools used For send Whatsapp broadcast on *contextual marketing*. Device soft paid Rp 99.000,- per year ;
8. Whatsapp  
Application conversation used \_ For exchange message or give reply moment send Whatsapp broadcasts. Device soft free version ;
9. Trello  
Application used \_ For make *Kanban Meeting* on *agile marketing*. Device soft free version or paid USD 10 per month ;
10. Semrush  
The application used in the application *data driven marketing*. Device soft available free version or paid USD 120 per month ;
11. Google Trends  
The application used in the application *predictive marketing*. Device soft free version .

### 3.4 Instrument Study

Instrument research used \_ in study this is:

- a. Share questionnaire addressed to management and students of Bali Aviation Tourism Center for know habit use of social media Instagram ( attached ).
- b. Observation on Bali Aviation Tourism Center social media movements.

### 3.5 Data Type

As for the type of data used in study This is using Primary Data. Primary data is the data obtained from do study without through intermediary . This primary data obtained through observation passive Where observation in a manner direct done without follow involved in activity the . Observation done For get complete data related amount social media traffic and digital marketing strategy that has been carried out at the Bali Aviation Tourism Center company . As well as researchers will also do observation active on Implementing Instagram filters against awareness brand after Instagram filter is successful implemented (Melfianora, 2018) .

### 3.6 Research Flow

Stages method research conducted \_ in study is as following .

1. Identification problem

In study this is the problem that occurs is lack of awareness brand on Bali Aviation Tourism Center Instagram social media .

- a. Researcher do method checking amount reach and awareness brand on existing digital marketing materials done via Instagram social media from Bali Aviation Tourism Center from range time June and August 2022.
- b. Analysis characteristics of the target market is graduate of School Intermediate On or Vocational education using the social media platform Instagram with range aged 18 to 25 years , in East Java , Bali, East Nusa Tenggara and West Nusa Tenggara.
- c. Do observation on the increase data coverage in September to November 2022.

2. Studies literature

Studies done For study and explore knowledge about the Marketing 5.0 method uses social media Instagram and *Augmented Reality* , as well study related to what is being done through theses , journals , books , papers, and the internet published in as well as abroad .

3. Data collection

Next , researchers do data collection with observation use questionnaire on google form media to students and staff management at Bali Aviation Tourism Center related to social media what is most frequent used , from where usually get information about campus , the usual thing done media social . FAQs \_ This done to 4 management staff and 21 current students undergo education at Bali Aviation Tourism Center.

4. Data analysis

On analysis from the data obtained give description that 96% of the sample data interviewed say that social media is used For look for information on the company Bali Aviation Tourism Center is Instagram. Besides That another thing done on Instagram is upload Photo or videos.

5. Implementation of Marketing 5.0

At stage This done implementation of Marketing 5.0 at the Bali Aviation Tourism Center using tools or supporting *tools* \_ analysis *data-driven marketing*, analysis *predictive marketing* , *agile marketing*, *contextual marketing* , and *augmented marketing* .

### 3.7 Schedule Study

Study This done start month July 2022 to November 2022. By details in Table 3.1 below :

**Table 1.** Schedule Study

NO	ACTIVITY	MONTH				
		7	8	9	10	11
1	Identification problem					
2	Studies literature					
3	Data collection					
4	Data analysis					
5	Implementation of Marketing 5.0					
6	Conclusion					

## 3. RESULTS AND DISCUSSIONS

### 3.1 The Application of Augmented Reality on Instagram Filters

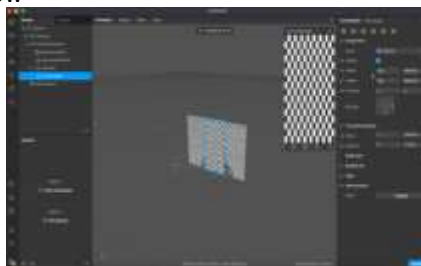
a. Steps to Create an Instagram Filter

Here's how to make Instagram Filters in the Spark AR application:

- 1) Setting up a filter frame to be made in .png form and using a transparent background
- 2) Download the Spark AR Studio app at <https://sparkar.facebook.com/ar-studio/download/>
- 3) Open the Spark AR Studio application, click "create new, blank project"
- 4) In the "scene" section, click the "+" sign then type "rectangle" as shown in picture below



- 5) When the "rectangle" section appears under the words "canvas", click "rectangle"
- 6) On the right will appear the size of the "rectangle" that will be made, set it to "fill width and height" so that it looks like picture below



- 7) On the right, click on the "material +" button so that on the left "Assets" appears "Materials"
- 8) Click "Material0" until it looks like in picture below and click texture in the "texture" section



- 9) Select "new texture" and upload the filter frame file in .png format that has been prepared
- 10) If it has been imported, the frame will immediately look like picture below.



- 11) After that, you can start exporting files to upload

### 3.2 Steps to Upload Instagram Filters

- a. Create a creator account in Spark AR
- b. Click "Publish" in the upper right corner of the dashboard, then click "Effects"
- c. Fill in all the forms on the dashboard, such as the name of the effect, upload the filter file that was created in the ".arexport" format, select the platform that will be used to display the filter, set the audience to public, select the account that will publish, enter the filter category, enter keywords , add collaborators if any, and set a publish date
- d. After that click "save" in the upper right corner
- e. If you can click "Test on Device", please send the link to try on the device and Instagram, after that try to record it to make a "demo video".
- f. Return to the dashboard and upload the "video demo" to the dashboard
- g. If all steps have been completed, click "Submit"

### 3.3 Display Instagram Filter

There are 11 Instagram filters that have been published on Instagram @batcbali, starting from the Bali Aviation Tourism Center uniform, face filters, frame filters, and several uniform filters such as flight attendants, college uniforms, yukata, and hanbok. The following is a view of each of these filters.



**Figure 1.** Display Instagram Filter

Figure 1 shows an Instagram filter that was successfully published on social media @batcbali on Instagram or BATC Flight Campus on Facebook. With the name of the filter located below the image. This filter is ready to use on Instagram stories, reels, and feeds.

### 3.4 How to Use Instagram Filters

Here's how to use or apply the Instagram Filter from the Bali Aviation Tourism Center on the Instagram application

- Open the Instagram application
- Type in the search field "@batcbali"
- When the profile of the "@batcbali" account is already open, click the "🌟" icon
- Next, choose a filter that you find interesting to use
- Click on the desired filter, then Instagram will open your front or back camera
- Take a photo when the Instagram filter you selected is visible
- When you have finished taking photos, you can upload the photos on Instagram social media as Instagram stories, feeds, or reels.

### 3.5 Results of Applying Instagram Filters



**Figure 2.** Results of Using Instagram Filters

Figure 2 shows the results of using Instagram filters in a period of time. There are 5 interaction insights provided by Spark AR Hub in explaining the results of using Instagram filters in quantitative measurements. That insight is an impression of 18,300 times, which show the number of effect appears on screen in a story, post, or reel on Instagram. Specifically, It was opened 6,700 times of people have tried the filter on the Instagram camera. 249 captures, means the number people took

photos or recorded videos featuring the filter. Moreover, the data also shows that it saved 80 times and shared 19 times.

Filter	Views	Interaksi	Simpan	Bagikan	Respons	Salin	Unggah
Flight Attendant Uniforms	1.301	211	44	5	22	4	14
Pilot Uniforms	871	200	38	5	20	3	15
A-Z Traveling	347	200	10	3	7	1	8
Other filters	200	100	5	2	10	2	10

**Figure 3.** Results of Each Instagram Filter

Figure 3 shows the results of the breakdown of each filter method used. The top three most influential Instagram filters in terms of distribution are Flight Attendant Uniforms, Pilot Uniforms, and A-Z Traveling.

**3.6 Changes to the Bali Aviation Tourism Center Instagram Insights**



**Figure 4.** Before implementing the Instagram filter

Figure 4 shows the result of a profile visit before implementing the Instagram filter at the Bali Aviation Tourism Center. It was recorded that there were 13,507 profile visits that occurred, and 312 new followers during that time.





**Figure 5.** After implementing the Instagram filter

Figure 5 shows the result of the followers who are visiting an Instagram profile after applying the Instagram filter. These results show an increase of 22,784 profile visits and 1,893 new followers on Bali Aviation Tourism Center’s Instagram account.

Based on the two data comparisons above, it can be concluded that the application of the Instagram filter has succeeded increasing insight to Instagram profile visits and the number of followers of Bali Aviation Tourism Center’s social media. By this fact, It was decided to continuously implementing Instagram filter in order to increase the number of profile visits in the next period.

**Table 1.** Instagram Reach Data

Week	Filter reach	Instagram reach	increasing Followers
1 <sup>st</sup>	1009	1250	160
2 <sup>nd</sup>	1023	1789	209
3 <sup>rd</sup>	2487	3890	220
4 <sup>th</sup>	2590	4092	247
5 <sup>th</sup>	2703	1609	198
6 <sup>th</sup>	3887	3205	309
7 <sup>th</sup>	3201	3956	310
8 <sup>th</sup>	3000	2993	240
Total	19900	22784	1893

The filter reach is the number of Instagram filter achievements that Instagram users have seen through Instagram stories and reels. While Instagram reach is the number of achievements on Bali Aviation Tourism Center Instagram account seen by all Instagram users. Lastly, the followers increasing is the enlargement of followers on Bali Aviation Tourism Center social media when they have applied the Instagram filter within eight weeks.

Based on the intersecting data from the table above, it is a display of the use of Instagram filters which mutually influence the number of reach and new followers on Instagram from Bali Aviation Tourism Center company. When ,any people use filters are directly proportional to the increase of followers, as can be seen in the 6<sup>th</sup> and 7<sup>th</sup> week show the highest number of increases in all aspects.

Calculated using the Customer Acquisition Cost formula. CAC is calculated by dividing all costs incurred to acquire new customers by the number of customers acquired in a certain time period.

CAC = Total costs incurred to acquire new customers in a certain period / number of customers acquired in a certain period, with the following formula.

$$CAC = \frac{\text{Total biaya yang dikeluarkan untuk mendapatkan pelanggan baru dalam periode tertentu}}{\text{Jumlah pelanggan yang diperoleh dalam periode tertentu}}$$

CAC = IDR 99,000 / 1893 followers = IDR 53,-

Cost per one follower (CAC) = Rp. 53,-

From these results, with only spend not more than IDR 1,000 per follower, the companies get higher profits by spend money efficiently.

#### 4. CONCLUSION

The use of digital marketing 5.0 strategies can increase the reach of brand realization. Starting with the process of analyzing competitors and the right keywords to predict what prospective students are looking for using the implementation of data-driven and predictive marketing. The tools used are Semrush and Google Trends. Making prospective students as objects have feelings and can respond to recognition of a brand with contextual marketing, making prospective students feel special by creating a special landing page content made in the Canva application moreover, with the help of sending broadcast messages to several contacts related to Whatsapp.

Agile Marketing makes marketing deliver very fast for testing on Bali Aviation Tourism Center campaigns, and it can also serve as a reminder for unrealized tasks. Followed by adding gamification to social media that has been used, with the implementation of augmented marketing, the tools used are making Instagram filters with augmented reality using Spark AR tools, with an increase of 19,900 reach contributed by Instagram filters. As well as an increase of 22,748 new reach and 1839 new followers on the @batcbali Instagram account. This is considered capable of increasing brand recognition and having a positive impact on Bali Aviation and Tourism Center social media. In the next marketing period, the researcher suggests to implement all elements of marketing 5.0 to increase the effectiveness, effort and costs charged at the time of admitting new prospective students.

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