



## Challenging Experiential Marketing with Augmented Reality Innovation

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### Abstract

In recent years, Augmented Reality (AR) has been an extremely popular field in experiential marketing and marketing analytics, as it can create new interactive experiences for consumers with additionally helpful information in purchasing products. In this paper, our main contribution is to explore the novel characteristics of AR for experiential marketing using qualitative research. The data collection is performed using in-depth interview with two groups of samples selected by using purposive sampling method, which are the representatives of organizations with experience in using AR in marketing communications and the innovators of such organizations. After that, the characteristics of innovation that lead to consumer adoption of innovation are utilized in conjunction with experiential marketing to create a new model for applying AR in experiential marketing promotion for all organizations looking to develop innovation in their business. The results showed that organizations can apply AR by developing characteristics of innovation consisting of relative advantage, compatibility, complexity, trialability, and observability in accordance with each aspect of experiential marketing which is composed of sense, feel, think, act, and relate marketing. The analysis revealed the relationship of characteristics of innovation and experiential marketing in each aspect as follows: 1) Relative advantage consists of innovative marketing promotion which enhances Act marketing, the innovative presentation which enhances Sense marketing, and inner feeling and playfulness which enhances Feel marketing; 2) Compatibility consists of a response to consumer interests which enhances Think marketing and response to technology use behavior which enhances Act marketing and Relate marketing; 3) Complexity consists of the use of platforms with no application download required, service provision via corporate communication devices, and user-friendly application development which enhance Act marketing; 4) Trialability consists of awareness-raising communication which enhances Think marketing and downloading applications on user's communication device which enhances Act marketing; and 5) Observability consists of making consumers feel like seeing actual products or stories which enhances Sense marketing, providing consumers with better-detailed understanding which enhances Think marketing, and providing consumers with a new marketing experience that enhances Act marketing and Relate marketing.

**Keywords:** 1) Augmented Reality 2) Experiential Marketing 3) Characteristics of Innovation, Marketing Communication

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## Introduction

The rapid development of technology and disruptive innovation has led to changes in daily life and consumer behavior, including radical changes in business and industry. The emergence of disruptive innovation is an opportunity for entrepreneurs to adapt to the changing technology by adopting different and appropriate strategic approaches to each type of innovation (Christensen, et al., 2018, pp. 1043-1044).

With the emergence of augmented reality (AR) technology, marketers now have more chances to engage customers and improve their brand experience. While businesses are eager to invest in AR, research on its practical impact in real-world settings is limited. They then concentrate on the application of AR to aid product assessment before purchasing and experimentally explore its influence on sales in online shopping. Data from an international cosmetics shop reveal that AR usage on the retailer's mobile app is related to increased sales for less popular brands, goods with a narrower appeal, and more costly products. AR is most successful, proving the technology's ability to boost sales by lowering doubt and encouraging buy confidence when product-related ambiguity is high (Tan, Chandukala and Reddy, 2022, p. 48). AR allows users to interact with virtual objects without the risk of losing sight of the actual environment. Furthermore, AR can be experienced simply from consumers' existing portable devices (e.g., tablets or smartphones). As a result, AR is a unique technology, and the number of users is expected to increase dramatically (Petrock, 2020).

Considering AR in the aspect of innovation, Rogers (2003, p. 241) believes that the current level of uncertainty about how the innovation will work, as well as social system reinforcement, are influencing people's attitudes about the technology. He also considers that the rate of acceptance of an invention is determined by the persuasion of five innovative characteristics, namely relative advantage, compatibility, complexity, trialability, and observability. In this regard, Ekelöf and Hedqvist (2017, pp. 77-94) applied the innovation characteristic to the analysis of the AR potential use-case, which has been categorized into ten categories as follows: remote guidance, 3D-models, dashboarding, spatial design, warehouse picking, smart-work instruction, virtual data, augmented training, intuitive interface, and localization.

Customers' satisfaction increased dramatically as a result of experiential marketing. Meanwhile, client loyalty was unaffected by experiential marketing (Soliha, et al., 2021, pp. 1327-1338). Retailers are increasingly turning to AR as an experiential marketing tool to provide added value to their customers through unique experiences. AR experiential marketing (AREM) has a favorable impact on brand equity via the dimensions of brand awareness, brand associations, and brand loyalty (Haumer, Kolo and Reiners, 2020, p. 368). AR experiential marketing can be easily captured and posted to the Internet, eliminating the need for corporations to advertise items because participants spread them automatically. AR integration has emerged as a new trend in experience marketing (Lin, Fu and



Lin, 2020, p. 11940).

With the challenging of successfully creating AR innovation for experiential marketing, it is necessary to study the characteristics of AR innovation that are suitable for their application in experiential marketing. In this study, the data collection was performed by interviewing the representatives of organizations with experience in using AR in marketing communications and innovators of such organizations. This was done by utilizing the concept of consumer adoption of innovation and experiential marketing in order to create a model for applying AR in experiential marketing for all organizations looking to develop innovation in their business.

The objectives of this research were to discover the characteristics of AR innovation for experiential marketing. The challenge in this research lies in the development of a guideline for applying AR in experiential marketing. This can be done by identifying the details and relationship of characteristics of innovation of AR and experiential marketing. Organizations can use this approach to develop the characteristics of AR innovation to suit experiential marketing and meet consumer needs.

Overcoming this challenge requires two key concepts, characteristics of innovation and experiential marketing, for analyzing the data obtained by interviewing the representatives of organizations with experience in using AR in marketing communications and innovators of such organizations.

## Literature Review

Augmented Reality (AR) is one of

the technologies that is expected to play a role in businesses and industries. AR was the technology trend in 2020 categorized in a group of technologies that focuses on creating multi-experience, emphasizing on creating immersive technology experience for consumers (Panetta, 2019). With the characteristics of AR, a technology that uses computers to create and display digital virtual images in the real-world by harmonizing physical environment and digital simulated world to provide virtual perception as natural parts of the real world (Huang and Liao, 2015, pp. 286-287). When it is applied to the organization's operations, it can provide consumers with new AR experiences without location constraints, in which the internet acts as a connectivity factor. AR is a field of a physical-world environment where the objects that reside in the physical world are mixed by virtual world (Kerdvibulvech and Chen, 2020, pp. 467-468). Many companies are starting to use AR in conjunction with their marketing strategies to create enjoyable and interactive experience for consumers. The use of AR for experiential marketing is essential to satisfying consumers through direct product experience (Baharuddin and Rambli, 2017, p. 123). This allows consumers to pay more attention to the products by seeing the virtual product rather than the seller's words (Hilken, et al., 2017, pp. 898-899).

In present, consumers have a wide choice of media, therefore marketers need to analyze the characteristics of AR that lead to consumer engagement and achievement of organizational goals (Conway, Woodard and Zubrod, 2020). Development of service

strategies by creating remarkable innovation is crucial in driving operations and adding value to the services (Dotzel, Shankar and Berry, 2013, p. 259). The use of AR for experiential marketing is considered a new form of innovation that requires the development of characteristic to be consistent with the consumer needs. If any innovation goes through the process of customer adoption of innovation, that innovation or technology will be accepted and adopted in the society and contribute to commercial benefits (Moore, 1991, p. 52). For experiential marketing, it refers to marketing strategy that enhances the customer experience, both physical and psychological (Keller, 2013, pp. 43-44). The experiential Marketing consists of five different types of experiences: sensory experiences (Sense), affective experiences (Feel), creative cognitive experiences (Think), physical experiences, behaviors and lifestyles (Act) and social-identity experiences that result from relating to a reference group or culture (Relate) (Schmitt, 1999, p. 53). Using AR innovation for experiential marketing, entrepreneurs play an important role in the development process of innovation and innovation also plays a role in the success of entrepreneurs (Zhao, 2005, p. 25).

The characteristics of the AR innovation concept are based on the characteristics of the innovation concept in the theory of diffusion of innovation (DOI), where relative advantage, compatibility, complexity, trialability, and observability are the key elements.

The definition of characteristics of innovation can be concluded as follow. Relative advantage is the degree to which an innovation

is perceived as having a higher advantage. The degree of relative advantage may be measured in economic terms, but social-prestige factors, convenience, and satisfaction are also often important components. Compatibility is the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters. Complexity is the degree to which an innovation is perceived as being uncomplicated and easy to recognize and use. Trialability is the degree to which an innovation is perceived as easy to try and appropriate for the user experience. Observability is the degree to which an innovation is perceived as having outstanding results (Rogers, 2003, p. 232). In addition, the elements of characteristics of innovation affecting efficiency and adoption of AR in marketing have been studied in several studies. For example, a study on the effectiveness of AR in marketing communication found that the characteristics of innovation of AR consisted of design, usability, performance, user-friendliness, and popularity (Baratali, et al., 2016, p. 133). A study on AR-based experiential marketing found that the important variables were ease of use, prior knowledge, usefulness, and entertainment item (Baharuddin and Rambli, 2017, p. 119). Furthermore, a study performed to investigate the AR in participatory marketing showed that the key elements were commercial AR applications in a social setting, AR supporting digital rituals, AR supporting alternate realities, and AR supporting digital life (Conway, et al., 2019 pp. 4-6).

The experiential marketing concept consists of five different types of experiences:



sensory experiences (Sense), affective experiences (Feel), creative cognitive experiences (Think), physical experiences, behaviors and lifestyles (Act), and social-identity experiences that result from relating to a reference group or culture (Relate) (Schmitt, 1999, p. 53). Sense marketing appeals to consumers senses. Feel marketing appeals to customers' inner feelings and emotions, ranging from mildly positive moods linked to a brand to strong emotions of joy and pride. Think marketing appeals to the intellect in order to deliver cognitive, problem-solving experiences that engage customers creatively. Act marketing targets physical behaviors, lifestyles, and interactions. Finally, related marketing creates experiences by taking into account individuals' desires to be part of a social context. (Schmitt, 2010, pp. 66-71)

## Methods

### Research design and sample

This study is qualitative research. The data collection was performed using an in-depth interview with 2 groups of samples selected by using the purposive sampling method. The first group represented the organizations with experience in applying AR in marketing communications in Thailand between 2017 and 2020, and the second group was the innovators of AR for the said organizations. The details of the organization interviewed are shown in Table No. 1. Purposive Sampling consists of two steps as follows:

The first step was to select a specific sample group by selecting a sample group representing organizations applying augmented reality technology in marketing communi-

cations in Thailand during 2017-2020. The sample groups were divided into 4 types of organizations according to the objectives of applying augmented reality technology, totaling 8 organizations, consisting of 2 organizations with the objective of applying augmented reality to develop printed media, 2 organizations with the objective of applying augmented reality as a tool for promotion, 2 organizations with the objective of applying augmented reality to create interactions with consumers, and 2 organizations with the objective of applying augmented reality to develop products and service.

The second step was to select specific interviewees, divided into 2 groups with a total of 14 people. The first group was representatives of organizations with experience in applying augmented reality in marketing communications. People that were chosen for interviewing is the leader in planning strategy for using the application of augmented reality technology in marketing communication, totaling 8 people, 1 person per organization. The second group is the person who is the project leader in creating an augmented reality for the said organization, totaling 6 people, 1 person per organization (2 innovators for the same organization and 1 innovator is not disclosed).

**Table No. 1** Sample groups of organizations representatives and innovators of AR technology for each organization.

Application of AR	Objective	Organizations	Innovator organizations
Thairath newspaper	Development of printed media	Triple V Broadcast Company Limited	Ookbee U Company Limited
Postage stamps	Development of printed media	Thailand Post Company Limited	Faculty of Science, Ubon Ratchathani University
Products in SCG Experience project	Tool for promotion	SCG Experience Company Limited, a subsidiary of SCG Distribution Company Limited	Any I Company Limited
UNIO condominium project	Tool for promotion	Ananda Development Public Company Limited	Helix Company Limited
3D painting in Art in paradise museum	Development of service	Art In Paradise Company Limited	Illusion Connect (Thailand) Company Limited
Siam Tee Ruk souvenirs	Development of products	Sketcher Bo Company Limited	The Foto Dio Company Limited
Fun-O product packaging	create interactions with consumers	URC (Thailand) Company Limited, JACK'n JILL product group	Illusion Connect (Thailand) Company Limited
Games for Pepsi the innovators	create interactions with consumers	Mindshare Thailand Company Limited	Does not wish to disclose the innovators

## Methodology

1) Study concepts, theories, and related research, consist of five characteristics of innovation of AR concept proposed by Rogers (2003, pp. 211-238) and the experience marketing concept proposed by Schmitt (2010, pp. 66-71). The concept of characteristics of innovation is recognized as an important part of the success of innovation, while the experience marketing concept is recognized as an important part of successful marketing.

2) Formulate the semi-structured interview form with open-ended questions from the analysis of concepts, theories and related research cover all significant point of

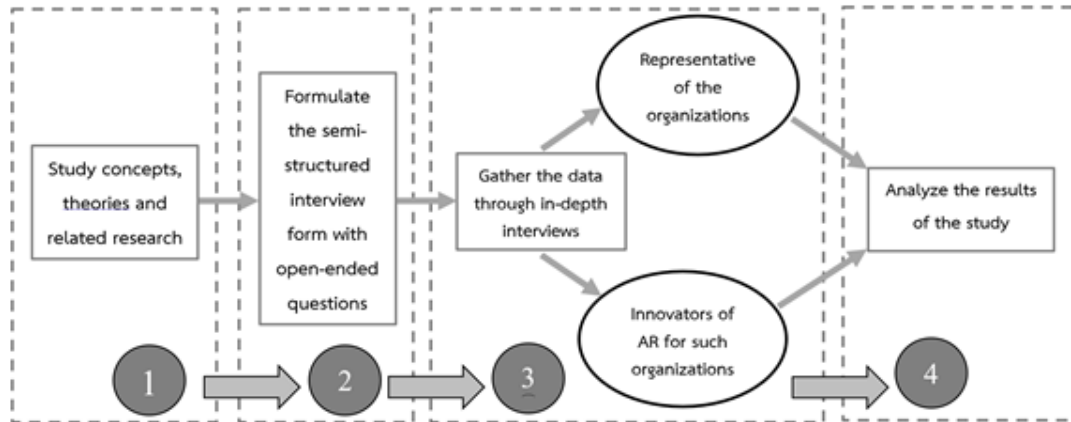
characteristics of innovation and experiential marketing concepts.

3) Gather the data through in-depth interviews with two groups of samples chosen by the purposive sampling approach. The first group was representative of the organizations with experience in applying AR in marketing communications in Thailand between 2017 and 2020, and the second group was the innovators of AR for such organizations.

4) Analyze the results of the study obtained from the data through in-depth interviews. In applying the concept of characteristics of innovation of AR for experiential marketing, it is necessary to analyze the data

obtained from the interviews to define the characteristics of AR innovation and to group them with the characteristics of innovation from the theory of diffusion of innovation. This allows the detailed analysis and relationships of the characteristics of innovation and elements of the experiential marketing concept,

which can be applied by organizations in developing the characteristics of innovation. This is to promote each characteristic of experiential marketing to meet organizational objectives and consumer needs. The process diagram of the methodology of this research is illustrated in Picture No. 1.



Picture No. 1 Process diagram of the methodology

## Results

From the data on the application of AR for organization marketing communication, the pictures of each AR developed by each organization are illustrated in Table No. 2, and the characteristics of innovation of AR in each aspect are as follows:

### 1) Characteristics of AR innovation of Thairath newspapers

**1.1) Relative Advantage:** AR is applied to special issues of Thairath newspapers using the Thairath AR application. Technology and innovation are used for adding novelty to the traditional print media in order to make newspapers more interesting and well known among the new generation of consumers. These special issues contain unique and different content presented in the form of images, video clips, and immersive technology is also

used in conjunction with storytelling techniques. It made consumers interested in the information with the unpredictable point.

**1.2) Compatibility:** The special issues of Thairath newspapers provide information to raise awareness for important occasions of consumers that are interested in. It is also a response to the behavior of the new generation who are familiar with the use of technology in order to make newspapers more interesting and well known among the new generation of consumers.

**1.3) Complexity:** The application of AR to special issues of Thairath newspapers is an innovation with user-friendly instruction. The system has been continuously developed to be more efficient in reducing complexity in the application, as well as for effective rendering.



**1.4) Trialability:** Consumers can download the Thairath AR application on their communication devices to use it with special issues of Thairath newspapers anytime, anywhere. In addition, Thairath has communicated to raise awareness regarding the use of AR to facilitate the trial by presenting video clips through online media. In addition, technology celebrities are also used in communication to build credibility and attention. Furthermore, the application, Thairath AR, is named after the organization's name to convey the meaning.

**1.5) Observability:** The integration of AR with special issues of newspapers allows consumers to feel like seeing actual stories through a variety of media formats such as images, video clips and 3D images. With the use of marker-based AR that includes markers on different points of newspaper together with communication on important occasions using storytelling technique, consumers are provided with better detailed understanding and better experience of reading newspapers in the new format compared to traditional one.

## **2) Characteristics of AR innovation of Thailand Post**

**2.1) Relative advantage:** AR is applied to Thailand Post's postage stamps. Technology and innovation are used for adding novelty to the traditional postage stamps to make them more interesting and well known for new generation of consumers. Modern technology is used in conjunction with interesting presentation method using video clips to convey the stories appeared on the postage stamps via an AR application

**2.2) Compatibility:** Thailand Post pre-

sented stories of special occasions on postage stamps that people are interested in with the objectives to record important history of the country. Technology is used in conjunction with postage stamps in response to the behavior of the new generation.

**2.3) Complexity:** Thailand Post has continually developed its AR applications used in conjunction with postage stamps to keep up with the rapidly changing technology and to ensure effectiveness in usage.

**2.4) Trialability:** Thailand Post has communicated through online media, corporate media, and mass media on downloading and use of the applications. The applications of Thailand Post are such as StampAlive, which refers to as live stamps with an ability to communicate information featuring animations and sound effects, and ASEAN Stamp, which refers to the stamps of countries in the ASEAN region. The users can download these applications on their smartphones to be used with special postage stamps anytime and anywhere.

**2.5) Observability:** Thailand Post presents information in form of video media of the stories on important occasions that are consistent with the images appeared on the postage stamps using storytelling technique. This is done through the use of a marker-based AR application with markers on a postage stamp. It creates a better experience and provides the consumer with better-detailed understanding of the stories.

## **3) Characteristics of AR innovation of SCG**

**3.1) Relative advantage:** The application of SCG's AR aims to enhance service





efficiency that allows consumers to view the details and instruction of products through new technologies, including shopping and connecting with salespeople through the app. Thus, it helps to reduce the number of brochures. In addition to reducing the cost of printing, it also eliminates the need for consumers to carry a large number of brochures when using the service.

**3.2) Compatibility:** SCG's AR application provides consumers with necessary and useful information in purchasing products, especially the items that cannot be displayed on the shelf. This allows consumers to view the details of the products through the application.

**3.3) Complexity:** SCG has prepared the tablets with the Smart Shopping Cart application. This means that consumers do not have to download this application on their smartphone, and it also prevents problems caused by differences in the smartphone specification.

**3.4) Trialability:** SCG has communicated through various media such as SCG Experience's Facebook Fanpage, SCG's website, and online news agency on marketing-related topics and communication innovations. There are also staffs available to advise on the use of the application to consumers.

**3.5) Observability:** SCG's AR application provides product details which are essential and useful information for purchasing products. With marker-based AR technology that includes markers on the package, consumers can view various details of the products through the application as if seeing the real

products. This provides consumers with better-detailed understanding and a new shopping experience.

#### **4) Characteristics of AR innovation of Helix (UNIO condominium project)**

**4.1) Relative advantage:** Helix uses AR as a new promotional tool instead of traditional ones such as models, videos, and brochures. Its condominium project is presented through the application in 3D with a variety of unique and different formats, such as virtual 3D floor plans of the condominium, as well as furniture images that users can click to view and place or delete some pieces of furniture. It also offers users enjoyment by cartoon characters in communication to attract consumers and provide consumers with better-detailed understanding.

**4.2) Compatibility:** With the use of Helix's AR applications, consumers are provided with the necessary and useful information in purchasing condominium units, as well as visualizing the details of every room in real-time and virtual reality and also get rewards for using the applications. This corresponds to the behavior of the target audience, especially the new generation who are familiar with the use of technology and applications on communication devices.

**4.3) Complexity:** Helix offers an UNIO AR application where consumers can use it on Helix's tablet. This means that users do not need to download and install the application on their devices. There is also staff available to provide advice on the use of the application to ensure convenience and efficiency of use by consumers.

**4.4) Trialability:** Helix has communi-

cated and raised awareness using its UNIO AR application, which is named after the condominium project. There are also public relations through real estate and lifestyle-related media such as websites and magazines, as well as events. In addition, celebrities in the real estate field are also used to communicate and build credibility. When a consumer visits the project, there are also staffs available to advise on the use of the application to consumers.

**4.5) Observability:** Customers can use Helix's AR application to scan the markers on the project floor plan or brochure to view the details of the different rooms as if seeing a real condominium project in 3D and getting necessary and useful information in purchasing condominium units. In addition, users can also try on virtual furniture placement through the application with marker-based AR technology which gives consumers a new experience in buying condominium units.

## **5) Characteristics of AR innovation of Art In Paradise**

**5.1) Relative advantage:** Art In Paradise is the first museum in Thailand that applies AR to 3D paintings. It combines art and technology by presenting 3D images in a unique and interesting way. Animated 3D paintings are used, which combine the real world with the virtual world, to bring imagination as well as playfulness, excitement and impression to museum customers.

**5.2) Compatibility:** Customers can record videos of the animated 3D paintings and share them on social networks. This is consistent with the behavior of consumers who are accustomed to using technology and

distributing stories on social networks.

**5.3) Complexity:** Art in Paradise is constantly developing its AR applications in combination with 3D paintings to keep up with the changing technology for effective usage.

**5.4) Trialability:** Art in Paradise promotes its business through various media such as Art in Paradise's Facebook and LINE official account, as well as online news agencies and local media channels. There is also communication through travel agencies to connect with both Thai and foreign tourists. "Art In Paradise" museum is named after the organization and its name is used as the name of the application for easier recognition. Users can download the Art in Paradise application for free. When the user uses this application to scan 3D paintings at the museum, the application will show an image merging the virtual world with the real world.

**5.5) Observability:** Art In Paradise applies AR to 3D paintings to create a unique museum experience. With marker-based AR technology that includes markers on 3D paintings, the image displayed on the application merge the real world with the virtual world, allowing the museum customers to view the stories of that image. These images are animated 3D virtual images and sound effects combined with real world. Customers can act and record their own video together with 3D virtual images and shared them on social networks.

## **6) Characteristics of AR innovation of Siam Tee Ruk**

**6.1) Relative advantage:** Siam Tee Ruk applies AR for adding value to their souvenir products in different ways by combining paint-



ings, arts, and tourism. It is a new innovation to increase the attractiveness of Thai souvenir products for both Thai and foreign customers. Interesting content and presentations are added to various products in combination with architectural drawings of landmarks or the identity of each province in order to present the stories in an animated 3D format. It makes consumers' impression and thus creates an advantage and differentiates Siam Tee Ruk's souvenirs from other souvenir products.

**6.2) Compatibility:** Siam Tee Ruk's souvenir products have brought the highlights of tourist attractions in each province to create architectural art, allowing consumers to get to know the stories of these tourist attractions through modern art and technology. This technology is appropriate with the behavior of the new generation with the objective to make both Thai and foreign customers more interested in Thai souvenir products.

**6.3) Complexity:** Siam Tee Ruk is developing user-friendly and simple AR applications for its souvenir products which are consistent with the specifications of the user's communication equipment and to keep up with the changing technology.

**6.4) Trialability:** Siam Tee Ruk communicates and raises awareness by promote the AR application of its souvenir products through online media such as Siam Tee Ruk's Facebook fanpage and website. Sample video clips of 3D images are presented on the application. The customers can download Foto' Dio application for free and use this application to scan images that appeared on the souvenirs such as postcards, notebooks, t-shirts to view

the virtual 3D images and stories of that tourist attractions.

**5.5) Observability:** The integration of marker-based AR technology with Siam Tee Ruk's souvenir products provides consumers with a virtual experience of the real images and stories through animated 3D images. This provides consumers with better-detailed understanding by using storytelling techniques. When a consumer uses the application to scan the marker on a souvenir product, a 3D virtual image of the story associated with that tourist attraction is displayed. It creates a new kind of souvenir experience and impression and also attracts more consumers' interest in the products.

## **7) Characteristics of AR innovation of Fun-O**

**7.1) Relative advantage:** Fun-O is a brand of sandwich cookies that integrates AR with product packaging using presenter strategy. Presenters are used to build brand-consumer relationships. By presenting a virtual image of an animated presenter in conjunction with the user's real image, this technology makes consumers excited and enjoy a unique experience.

**7.2) Compatibility:** Fun-O uses famous actors as its presenters in conjunction with AR to build a good relationship between the brand and consumers. Consumers can virtually interact with their favorite presenters. Users can record the presenter's photos and videos together with the user's real image and can distribute it through social networks. This is consistent with the behavior of the target audience who are familiar with the use of technology.

**7.3) Complexity:** Fun-O uses AR in conjunction with the Recall, a user-friendly and simple application with a menu list function that allows consumers to choose the format of the presenter's image to be displayed on the application together with the actual image of the user as needed.

**7.4) Trialability:** Fun-O has been promoting the use of AR in its product packaging, as well as application downloads via Fun-O's Facebook Fanpage and LINE account and online news agencies. The presenters are used as the main communication strategy. Consumers can download the Recall application on their communication devices easily.

**7.5) Observability:** Fun-O has applied AR in its brand to create brand-to-consumer engagement using marker-based AR technology that includes markers on the product packaging to provide consumers with a virtual reality experience as if seeing the presenters in real life. Presenting the presenters in the form of animated virtual images combined with the user's real image gives consumers an exciting and enjoyable experience. In addition, users can also record images and videos of the presenters with real users' images and share them through social networks.

## **8) Characteristics of AR innovation of Pepsi**

**8.1) Relative advantage:** Pepsi's communication objectives are to strategically apply AR as part of its advertising campaign. Games with innovative content and presentations are created using technology together with key situations that consumers are interested in. This creates excitement and novelty, thus

enabling consumers to enjoy and want to participate in the games.

**8.2) Compatibility:** Pepsi is applying AR to its games to reflect the behavior of its target audience which are teenagers who are familiar with the technology and enjoy playing games. Football and music that are accessible and uncomplicated are chosen and rewards from the competition points made customer attraction.

**8.3) Complexity:** Pepsi's AR games aim to engage consumers with the brand. These are enjoyable games with content that is relevant to Pepsi's target audience, who are teenagers.

In addition, they are simple and accessible to everyone, making the consumers enjoy and want to participate in the games.

**8.4) Trialability:** Pepsi communicates through mass media and online media, especially Pepsithai Facebook Fanpage, including sending press releases for public relations through related websites and using the presenters to communicate the campaign objectives. The name of the product, "Pepsi", together with the game content "football playing and singing", are used in the name of the games "Pepsi Blue Ball" and Pepsi Music", respectively. Users can play these online games via the website and Pepsithai Facebook Fanpage, making it easy to use without downloading any application.

**8.5) Observability:** Pepsi has applied AR to its games that combine the real world with the virtual world, giving consumers a virtual experience as if seeing the actual stories. These games offer dynamic 3D visuals in

conjunction with real images to the users. For example, consumers can enjoy singing in online games. It gives consumers a new AR

gaming experience with web-based AR technology that enables consumers to play games through the website and social networks.

**Table No. 2** The pictures of each AR developed by each organization

Application of AR	Pictures of AR application
Thairath newspaper	 
Postage stamps	 
Products in SCG experience project	 
UNIO condominium project	 
3D painting in Art in paradise museum	 
Siam Tee Ruk souvenirs	 
Fun-O product packaging	 
Games for Pepsi	 

From the analysis of the application of AR for experiential marketing, the details of characteristics of AR can be summarized and

grouped with the concept of characteristics of innovation based on the diffusion of innovation theory as shown in Table No. 3.

**Table No. 3** The characteristics of AR innovation in marketing communication based on the characteristics of innovation concept

Characteristics of innovation	Characteristics of AR innovation in marketing communication
1. Relative Advantage	1.1 Innovative marketing promotion
	1.2 Merging of real and virtual worlds
	1.3 Creation of inner feeling and playfulness
2. Compatibility	2.1 Response to consumer interests
	2.2 Response to technology use behavior
3. Complexity	3.1 Use of platforms with no application download required
	3.2 Service provision via corporate communication devices
	3.3 User-friendly application development
4. Trialability	4.1 Awareness-raising communication
	4.2 Downloading applications on user's communication devices
5. Observability	5.1 Making consumers feel like seeing real products or stories
	5.2 Providing consumers with better detailed understanding
	5.3 Providing consumers with a new marketing experience

According to on the finding of the application of AR for experiential marketing obtained from interviews with the representatives of organizations with experience in using

AR in marketing communications and innovators of such organizations, the characteristics of AR can be summarized as shown in Table No. 4.

**Table No. 4** The characteristics of AR innovation in each organization

Organizations	Characteristics of AR innovation												
	Relative Advantage			Compatibility		Complexity			Trialability		Observability		
	1.1	1.2	1.3	2.1	2.2	3.1	3.2	3.3	4.1	4.2	5.1	5.2	5.3
Thairath	•	•	•	•	•			•	•	•	•	•	•
Thailand Post	•	•	•	•	•			•	•	•	•	•	•
SCG	•	•	•	•	•		•	•	•		•	•	•
UNIO	•	•	•	•	•		•	•	•		•	•	•
Art In Paradise	•	•	•	•	•			•	•	•	•		•
Siam Tee Ruk	•	•	•	•	•			•	•	•	•	•	•





Organizations	Characteristics of AR innovation												
	Relative Advantage			Compatibility		Complexity			Trialability		Observability		
	1.1	1.2	1.3	2.1	2.2	3.1	3.2	3.3	4.1	4.2	5.1	5.2	5.3
Fun-O	•	•	•	•	•			•	•	•	•		•
Pepsi	•	•	•	•	•	•		•	•		•		•

**Note:** The information presented in Table No. 4 uses reference numbers from Table No. 3.

Table No. 4 showed that the sample businesses used AR with innovative characteristics in all five elements: relative advantage, compatibility, complexity, trialability, and observability. When the characteristics of AR innovation were examined, it was discovered that the following characteristics of AR innovation were shared by all organizations: Innovative marketing promotion, merging of real and virtual worlds, Creation of inner feeling and playfulness, Response to consumer interests, Response to technology use behavior, User-friendly application development, Awareness-raising communication, Making consumers feel like seeing real products or stories and Providing consumers with a new marketing experience. However, different areas of organizational AR application are related to how customers used the applications, which differs by organizational objectives, including: Use of platforms with no application download required, Service provision via corporate communication devices, Downloading applications on user's communication devices.

## Conclusion and Discussion

From the data on the application of AR for experiential marketing obtained from interviews with representatives of organizations with experience in using AR in marketing communications and innovators of such

organizations, details and relationships of the characteristics of AR and experiential marketing can be summarized to develop a guideline for applying AR in experiential marketing.

According to the result data on the application of AR for experiential marketing, the characteristics of AR innovation in each aspect can promote experiential marketing in different ways as follows:

### 1) Relative advantage

According to the results, the characteristics of AR innovation in relation to relative advantage can be divided in 3 areas: innovative marketing promotion, merging of real and virtual worlds, and creation of inner feeling and playfulness.

#### 1.1) Innovative marketing promotion

is a characteristic of innovation that enhances Act experience for consumers by applying AR together with products or services to create new innovations for promoting the corporate marketing operations. The uniqueness of this technology that combines real and virtual worlds with various forms of media is used to engage and meet consumer satisfaction, as well as to promote a new service experience, consumption of goods and building relationships between brand and consumers.

**1.2) Merging of real and virtual worlds,** a visual presentation that combines



the virtual world with the real world, is a characteristic of innovation that enhances sense marketing by presenting the information through AR applications in different ways, combining consumer interests with various media and real-world integration technologies to create interesting real-world experiences. One application should be presented in a variety of formats that users cannot predict what will appear.

**1.3) Creation of inner feeling and playfulness** is a characteristic of innovation that enhances Feel marketing by combining AR with consumer's interest to deliver a story using a variety of media and technology integrating the virtual and the real world with a focus on the experience of the inner feeling and emotion of the consumer. For example, creating a feeling of excitement, appreciation, and impression, etc., including bringing imagination and entertainment to make consumers enjoy and want to participate in the use of applications with products or games.

Relative advantage is a characteristic of AR that includes marketing innovation which enhances Act marketing, merging of real and virtual worlds which enhances Sense marketing, and creation of inner feeling and playfulness which enhances Feel marketing. Many companies start using AR to create consumer experiences by combining their marketing strategies to keep their customers enjoyable and interactive. The use of AR for experiential marketing is essential for a business to satisfy their consumers by providing a direct experience from the products. AR can be used as entertainment items to create value, experi-

ence, and enjoyment that can increase loyalty in repeat purchase intention and word of mouth among consumers (Baharuddin and Rambli, 2017, pp. 119-125). Experiential marketing has shifted its focus from product performance to customer entertainment or entertainment experiences (Holbrook, 2000, pp. 179-180). With the characteristics of AR, a technology that uses a computer to create digital virtual images to appear in the real world of users, it can promote the creation of AR marketing experiences. In addition, using AR for playfulness can help build relationships with the brand and consumers (Huang and Liao, 2015, pp. 286-287).

## **2) Compatibility**

According to the results, the characteristics of AR innovation can be divided into 2 aspects: response to consumer interests and response to technology use behavior.

### **2.1) Response to customer interests**

is a characteristic of innovation that enhances Think marketing by presenting useful information or stories for daily life, thinking and decision-making, as well as meeting the consumer needs in various areas using AR applications. Product information or stories are presented through various forms of media in combination with virtual and real-world integration technology. This provides consumers with better detailed understanding and stories of the products and benefits from its use in areas such as perception of information, shopping, and travel, including rewards for using the application.

### **2.2) Response to technology use**

**behavior** is a characteristic of innovation that enhances Act marketing and Relate marketing



by applying AR together with communication devices, including various online media in the form of applications or online media. This allows consumers to engage with AR applications in various manners and record photos and videos while using the applications to communicate their new experiences and connect with the outside world by distributing them through the social networks.

Compatibility is a characteristic of AR innovation that consists of response to consumer interests which enhances Think marketing. Using AR to create such experiences requires prior knowledge and usefulness of information to consumers (Baharuddin and Rambli, 2017, pp. 119-125). Providing useful information can help in building a good brand-consumer relationship (Huang and Liao, 2015, p. 286) by responding to technology use behavior, which is a characteristic of innovation that enhances Act marketing and Relate marketing. Nowadays, consumers use technology and the internet more and more and it has become an important factor in their lives, especially during COVID-19 pandemic. This results in "People centrality" in technology development with the focus on creating a total experience, resulting in location independence of work (Panetta, 2020). In applying AR to participatory marketing, it is important to develop consistent 4 aspects of AR innovation: commercial AR applications in a social setting, AR supporting digital rituals, AR to support alternate realities and AR to support digital life (Conway, Woodard and Zubrod, 2020). Service excellence can foster lasting relationships between the brand and consumers with

high cognitive innovativeness (Huang and Liao, 2015, pp. 286-287).

### 3) Complexity

According to the results, Complexity of AR can be divided into 3 aspects: the use of platforms with no application download required, service provision via corporate communication devices, and user-friendly application development which enhance Act experience. These 3 aspects are the characteristics that enhance Act marketing:

**3.1) Use of platforms with no application download required:** The application of AR in conjunction with the platform used by consumers or the application of AR that can be used through the website and social networks. This simplifies the user experience by eliminating the need for consumers to download new applications.

**3.2) Service provision via corporate communication devices:** This allows consumers to use a communication device or tablet provided by the organization with AR applications installed. This simplifies the implementation by eliminating the need for consumers to download applications to their communication devices.

**3.3) Development of user-friendly applications:** The development of applications with simple and easy-to-use functions. These applications also contain problem and obstacle tracking features in order to improve its performance to keep up with the changing technology.

Complexity is a characteristic of AR innovation that includes the use of platforms with no application download required, service

provision via corporate communication devices, and user-friendly application development which enhance Act marketing. An important element of the use of AR for experiential marketing is ease of use by applying user-friendly AR in order to build long term relationship with consumers, especially consumers with low cognitive innovativeness (Huang and Liao, 2015), where ease of use helps to achieve satisfaction from the consumer experience (Baharuddin and Rambli, 2017, pp. 119-125).

#### **4) Trialability**

According to the results, Trialability, a characteristic of AR innovation can be divided into 2 aspects: awareness-raising communication and downloading applications on user's communication devices.

**4.1) Awareness-raising communication** is a characteristic of innovation that enhances the Think marketing. by communicating to consumers about purposes, instruction and benefits in order to raise awareness and stimulate interest in its use through various communication channels, including mass media and online media. The most popular communication channels are online media such as corporate Facebook Fanpage, LINE official account, corporate websites, and online news agencies related to corporate operations. In addition, celebrities with expertise in technology or corporate operations are used as the thought leaders in communication and the application is named after the organization or product to convey meaning. If it is a service in the organization's scope, there should be staff members available to provide advice on the use the application to ensure convenience and

efficiency of use.

**4.2) Downloading applications on users' communication devices** is a characteristic of innovation that enhances the Act marketing by applying AR to products or services based on organizational objectives. Users can download applications on their communication devices such as tablets and smartphones.

Trialability, a characteristic of AR innovation, consists of awareness-raising communication which enhances Think marketing and application downloads on user's devices which enhances Act marketing through the perceived ease of use. Perceived ease of use is the level at which consumers perceive a new service or product. This is the use of technology to create benefits and ease of use (Rogers, 2003, p. 231). Perceived ease of use of AR has a positive and significant effect on perceived benefits and attitudes towards use (Julio, Jose and Julio 2019, p. 5). Moreover, awareness-raising communication is very important because no matter how good the innovation is, if there is no communication to make consumers recognize the characteristics of innovation, it cannot make consumers accept and adopt the innovation in the next step (Rogers, 2003, pp. 231-232).

#### **5) Observability**

According to the results, Observability, a characteristic of AR innovation can be divided into 3 aspects: making consumers feel like seeing real products or stories, providing consumers with better detailed understanding and providing consumers with a new marketing experience.

**5.1) Making consumers feel like see-**



**ing real products or stories** is a characteristic of AR innovation that enhances Sense marketing. A distinctive characteristic of AR, that is integrating the real world with the virtual world, is used in the presentation in combination of media in different formats such as animated 3D images, Immersive technology, videos, including merging such media with the real image of the user to make consumers feel like seeing real products or stories.

**5.2) Providing consumers with better detailed understanding** is a characteristic of innovation that enhances Think marketing by presenting information or stories that meet consumer's interests and are useful to consumers in order to provide clear details of the products or stories through various forms of media, together with the technology of merging the virtual world with the real world, such as presenting the details of the items that cannot be displayed on the shelf and the product, virtual representation of tourist attractions.

**5.3) Providing consumers with a new marketing experience** is a characteristic of innovation that enhances Act marketing and Relate marketing.

The Act marketing is promoted through the application of AR according to the organization's objectives or product designs in order to create a novel act experience based on the traditional experience relating to the products or organizations, in which the consumers are the ones performing such behavior. This is done by bringing the uniqueness of the technology that combines the real virtual and the virtual world with various forms of media such as animated 3D, Immersive technology, and video media to

enhance the service experience and product consumption and to promote engagement between the brand and consumers.

The Relate marketing is promoted by making consumers to engage with the use of AR in various ways. The consumers can record the photos and videos while using the application and communicate their new experiences to connect with the outside society by distributing them through social networks.

Observability is a characteristic of AR innovation that consists of making consumers feel like seeing real products or stories which enhances Sense marketing and providing consumers with better detailed understanding which enhances Think marketing. AR enhances value perceptions through the characteristics of simulated physical control and environmental embedding. AR allows consumers to have a real-world experience of seeing objects placed on physical reality. On the other words, it gives consumers the subjective feeling spatial presence (Hilken et al., 2017, pp. 898-899). In the development of online service strategy, it is necessary to take into account the gap in the service that consumers are unable to get the real experience from touching or testing the product as in the real situation which provides a direct product experience for online shoppers (Çadirci and Köse, 2016, pp. 280-281). Technologies with different presentation, markerless AR and marker-based AR, are more effective in providing consumer with experiences compared to conventional interactive technologies. Markerless AR and marker-based AR also affect psychological measures, emotional response, interactive response, attitude

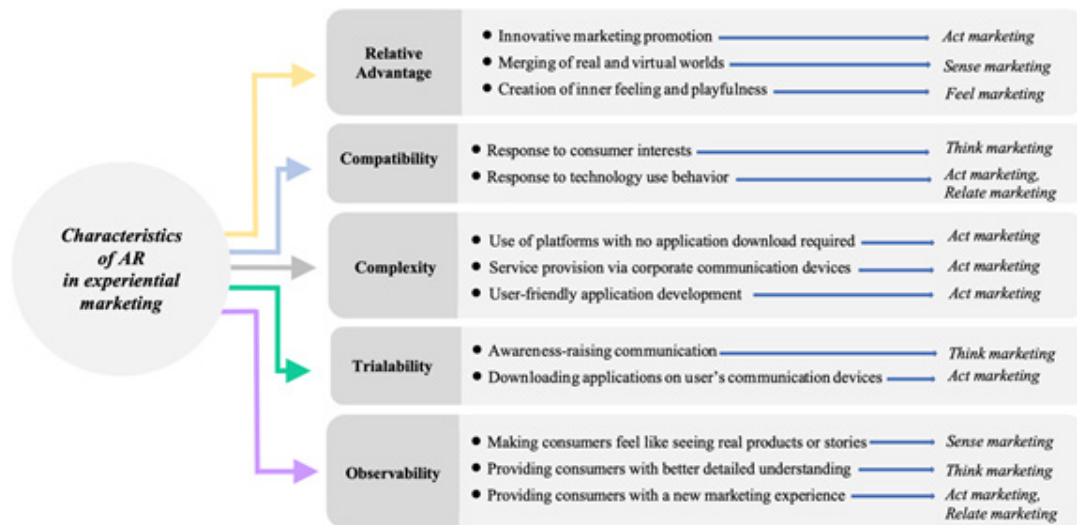
toward the brand, and future relationship with the brand (Brito, Stoyanova and Coelho, 2018, p. 7487).

Another important characteristic of observability of AR innovation is that consumers get a new marketing experience which enhances Act marketing and Relates marketing. It enables consumers to engage with the use of AR in various manners and to communicate their new experience to connect with the outside world by distributing them through social networks. In addition to creating a new marketing experience through AR, it is also a space for consumers to communicate about the use of AR innovation of the organization, as well as a communication space between consumers. As technology and communication innovations have developed rapidly, the Internet has played a huge role in human life, resulting in extensive development and high popularity of the online marketing business. Therefore, every company has to develop its services in order to satisfy its customers. This will lead to purchasing decisions (Purchase), word-of-mouth (WOM), and sustainable relationship and behavior. The development of a service strategy by creating outstanding innovation is essential to driving operations and increasing service value (Dotzel, Shankar and Berry, 2013, p. 259).

Interestingly, many organizations have not yet applied AR to promote Relate marketing in response to technology use behavior (compatibility) and providing consumers with a new marketing experience (observability). In other words, the organization does not apply AR to the online platforms or social networks

used by the consumers. In addition, the consumers are not encouraged to communicate their new experiences through the use of AR and connect with the outside world by sharing them through social networks. These aspects are key points that can be used to develop AR in marketing communications. The application of AR in combination with the online platforms used by the consumers can meet the compatibility and encourage consumers to share their new experiences from the use of AR through social networks to meet observability. Sharing the positive experiences of using AR with others is a key factor in promoting the successful application of AR for organizations (Baeck, Yoo, and Yoon, 2018, pp. 430–433). This will lead to the word of mouth in society (Ruyter et al., 2020, p. 110).

From the analysis of the application of AR for experiential marketing, the relationships between characteristics of AR innovation and experiential marketing are shown in Picture No. 2.



Picture No. 2 A conceptual relationship model of characteristics of AR innovation applying in experiential marketing

The results of the study on the application of AR for experiential marketing showed that AR is an interesting technology that businesses can use in experiential marketing to achieve their organizational goal by defining the characteristics of AR innovation for each field of experiential marketing.

To successfully apply AR in experiential marketing, organizations should develop AR that has all 5 characteristics of innovation: relative advantage, compatibility, complexity, trialability and observability. This is to promote the 5 areas of experiential marketing: Sense marketing, Feel marketing, Think marketing, Act marketing and Relate marketing.

The organizations can apply experiential marketing using AR innovation to create and develop by the suggestion as follows:

In Sense marketing, organizations should develop the relative advantage of innovation through merging of real and virtual worlds and observability by making consumers feel like seeing real products or stories. In Feel marketing, organizations should develop the

relative advantage through creation of inner feeling and playfulness. For Think marketing, the compatibility should be developed by the response to consumer interests, trialability by awareness-raising communication, and observability by providing consumers with better-detailed understanding. For Act marketing, the relative advantage should be built up through innovative marketing promotion, compatibility through the use of platforms with no application download required, service provision via corporate communication devices, and user-friendly application development, including enhancing the trialability of innovation by downloading applications on user's communication devices and observability by providing consumers with a new marketing experience. In Relate marketing, organizations should develop compatibility by response to technology and online media use behavior and enhance the observability of innovation by providing consumers with a new marketing experience and communicating unique experiences to connect with the outside world by

sharing them through social networks.

In addition to responding to consumer acceptance of innovation and promoting experiential marketing, the development of the characteristics of AR innovation also promotes organizational operations and business expansion. Application of AR according to organizational objectives such as improving service efficiency, adding product value, using it as a promotional tool, creating a novelty to the product. It can be used as a tool in a marketing strategy to promote the organization's performance in accordance with the predetermined goals. Furthermore, it can be used for business

expansion by applying operational knowledge related to the application of AR to the service. Other interested organizations can also apply AR in marketing communication and promote corporate communication to demonstrate organizational potential, as well as to create awareness of the organization's image as an innovative and modern organization.

### Conflict of interest

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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