
International Journal of Creative Multimedia

Augmented Reality: The Future of Movie Promotion for Malaysian Youth Cinemagoers

Rosnani Abdul Rahman
rosnani@mmu.edu.my
Multimedia University, Malaysia
ORCID iD: 0009-0005-5634-5141
(Corresponding Author)

Zainuddin Ibrahim
macintag_01@uitm.edu.my
Universiti Teknologi MARA, Malaysia
ORCID iD: 0000-0001-6302-4614

Mohd Ikhwan Mohd Marzuki
mikhwan.mohd@mmu.edu.my
Multimedia University, Malaysia
ORCID iD: 0009-0004-1470-7717

Nur Sarifah Hasan
sarifahhasan@gmail.com
Universiti Teknologi MARA, Malaysia
ORCID iD: 0009-0007-1509-9583

Ahmad Syafiq Zulfadzli
ahmad_syafiq@msucollege.edu.my
Management and Science University, Malaysia
ORCID iD: 0009-0009-9821-3744

Zakiah Zainal
zakiah.zainal@klmuc.edu.my
Kuala Lumpur Metropolitan University College, Malaysia
ORCID iD: 0009-0004-6872-2488

Abstract

Posters are great ways to promote movies. They visually show crucial components that stimulate excitement and interest in upcoming films. Nevertheless, using posters as movie promotional tools presents certain issues. Given the high volume of film releases annually, it can be challenging to differentiate oneself in a saturated market. Moreover, assessing their efficacy can pose a significant challenge. The movie advertising industry stands to benefit significantly from

augmented reality's (AR) rapid development. It has the potential to generate interest in upcoming films by creating interactive and immersive experiences. This study aims to understand how Malaysian youths view AR movie promotion to determine the best approaches to creating AR-based movie promotions. Three augmented reality (AR) experiences promoting the local film "Roh" were developed and tested on university students aged 18 to 25. The results illustrate the perceptions of the Malaysian youths regarding AR movie promotion and suggest optimal approaches to creating AR-based movie promotions that appeal to this demographic.

Keywords Augmented reality; Movie promotion; Advertising; Malaysian Youths, Roh

Received: 29 August 2023, **Accepted:** 22 September 2023, **Published:** 30 September 2023

Introduction

Movie promotion refers to the systematic approach of advertising and generating public awareness for a specific film. The process encompasses a range of actions and tactics aimed at enhancing the visibility and appeal of a film, as well as attracting viewers. These include the development of visually captivating posters, the production of enticing trailers, the organization of well-planned screenings, and the implementation of an efficient distribution strategy (Chase, 2023). Trailers offer distinctive and focused rhetorical structures that condense the visual and aural cues from the movie being promoted into a one- to three-minute cinematic experience. A movie trailer aims to draw in viewers by condensing the movie's most interesting, amusing, or memorable moments without revealing any significant plot details. Posters for films often get more attention than any other kind of movie promotion. The message behind the movie poster's visuals must be clear and convincing. This is the part that the media will pick up for the first round of coverage, and it will also be the part that people remember when they go to the theatre (Ulker-Demirel et al., 2018). Promotional activities are critical during the awareness stage of a new film since viewers' decision to watch the film depends on their awareness of the film. Viewers can learn pertinent information about a movie by reading reviews, pre-release advertising, marketing promotions from the movie production firm, and word-of-mouth from other viewers (Öcal & Nasır, 2016).

According to Saha (2023), promoting films using posters is common practice, but it comes with certain challenges, such as oversaturation in the market and difficulty measuring effectiveness. Every year, dozens of films hit theatres, making it challenging for any one of them

to grab audiences' attention. In addition to posters and trailers, adopting unconventional advertising techniques will spice up the campaign and increase the movie's visibility. It can be challenging to assess how well a movie poster draws viewers, especially if it is a print advertisement or billboard (Karray & Debernitz, 2015). It is easier to measure the efficacy of the posters if they were distributed via social media, which has clear metrics to track the views and engagement (O'Keefe-Smith, 2023).

The entertainment industry has seen significant transformations in its marketing strategies, and consumers have adapted to the change due to the pandemic-induced isolation. Companies globally are conscious of the intensifying nature of competition, prompting them to do market analysis and devise novel marketing techniques to get a competitive edge over their rivals (Beltozar-Clemente et al., 2023). Nica (2019) states that digital content marketing-related activities have the most significant business impact. In order to engage with their customers and make decisions about what products to buy—in this case, movies to watch—many of these organizations have chosen to use new technologies in today's age (Limpeeticharoenchot et al., 2020).

Beltozar-Clemente et al. (2023) suggest that technology can play a crucial part in assisting businesses in enhancing their brand's image, publicity and sales revenue. Businesses may establish a robust online presence, interact with consumers, and improve the customer experience by utilizing various digital tools and platforms. This can boost sales and strengthen a company's position in the market. Recently, film production companies have been utilizing popular technologies such as mobile applications, social media, augmented reality and virtual reality to promote their films by offering moviegoers personalized and engaging experiences through their promotional activities (Beltozar-Clemente et al., 2023; Dwivedi et al., 2021; Liao & Huang, 2021; Marr, 2022). Companies are embracing augmented reality technology to accomplish their goals and stay competitive, which is why it is necessary to incorporate it into promotional campaigns (Beltozar-Clemente et al., 2023). Despite the possible advantages of employing augmented reality (AR) to promote films, it is imperative to investigate how consumers view AR-based film promotions and how this influences their engagement with the campaign and the likelihood of seeing the film (Du et al., 2022). Understanding how consumers perceive AR-based movie marketing is crucial in comprehending the technology's potential for

movie promotion and building optimum AR experiences that engage and attract viewers (Javornik, 2016; Zeng et al., 2023).

Film industry executives place great importance on marketing research findings related to those under twenty-five due to the substantial presence of the youth demographic within the cinema audience (Jerrick & Crosby, 2013). The UK cinema industry's All Industry Marketing (AIM) Committee reports that young people (16–24 years old) typically have a strong affinity for mass-appealing movies like Marvel films or sagas like *Twilight* and *The Hunger Games*, that were made at enormous expense and heavily promoted (Independent Cinema Office, 2017). Movie marketers see the youth or Generation Z as a pivotal audience to target due to their size, digital savvy and unique values and preferences (Fry, 2021; Gomez, 2023; The DX Team, 2023).

The research on youth perceptions of AR-based movie marketing holds importance in comprehending the unique way in which youths interact with and react to this cutting-edge marketing strategy. By analyzing participants' perceptions, this study can offer significant insights for companies and marketers seeking to target this specific population effectively.

Augmented Reality as a Marketing Tool

Many businesses these days use customer-interactive technologies as part of their marketing plans. Technology has been proven to have a favourable impact on brand perception and awareness while simultaneously increasing conversion rates (Lazo-Amado et al., 2021). The marketing industry benefits significantly from the introduction of augmented reality (AR), which can potentially be a game-changer (Du et al., 2022). The term "augmented reality marketing" (or "AR marketing") describes the use of AR in promotional efforts to influence buyer behaviour and increase sales (Bell et al., 2018). AR marketing entails generating immersive and engaging experiences by fusing virtual content into users' perceptions of the physical environment. AR Marketing differs from digital marketing in various ways. First, AR Marketing introduces three categories of reality: reduced reality (where virtual content is used to remove or alter real-world elements), normal reality (where virtual content enhances the real world), and augmented reality in a metaverse context. Second, AR Marketing lets people interact with and manipulate virtual objects in real life. This embodiment increases learning and creates presence and engagement (Rauschnabel et al., 2022). AR helps marketing efforts by facilitating the creation of genuine, realistic, and impactful brand experiences (Mitrović et al., 2021).

Gamo-Ramos et al. (2021) asserts that augmented reality (AR) is used to merge interactive digital and print media. Print marketing materials can be created with specific "trigger" images that launch an interactive digital version of the advertisement when scanned by an AR-capable device via image recognition. A notable distinction between augmented reality and conventional image recognition is in the ability of augmented reality to superimpose several forms of material simultaneously onto the view screen. This includes integrating social media share buttons, in-page films, audio, and three-dimensional objects. AR advertising offers numerous advantages compared to traditional advertising methods. According to Yang et al. (2020), augmented reality (AR) advertisements possess qualities that enhance user engagement, creativity, inventiveness, and instructiveness. These attributes contribute to eliciting positive customer responses and differentiating promotional activities.

Promoting Movies using Augmented Reality

Film producers globally face stiff competition, so they constantly scrutinise the industry's state and brainstorm fresh ways to promote their films (Beltozar-Clemente et al., 2023). The entertainment industry has also been compelled to adapt its advertising strategies in the wake of the pandemic (Mulla, 2022). Using new technologies in advertising has been shown to boost the success of films (Chen, 2021). According to Beltozar-Clemente et al. (2023), the use of augmented reality applications enabled substantial advancements in the method used to promote films to viewers, such as a more effective method that helps the business achieve its goals. It was found that using the mobile application with augmented reality reduced the time movie theatre visitors spent choosing a movie, acquiring movie information, purchasing tickets, and increasing their satisfaction. A study by Liu et al. (2020) shows that AR can considerably increase the potency of print advertising (the movie poster). The study discovered that AR advertising improved levels of enjoyment and interaction, which in turn raised the advertisement's total efficacy.

AR Experience for "Ready Player One" Movie Promotion

Movie posters for "Ready Player One" were given augmented reality (AR) experiences with the use of Facebook's AR Target Tracker technology in 2018 (Robertson, 2018). The film served as one of Facebook's earliest experiments with an augmented reality (AR) experience. The

augmented reality effects in "Ready Player One" were made specifically for the release of Facebook's new Target AR. Using the camera on their phones, audiences could view mini-animations of the film (Winkelman, 2018). The second experience the Ready Player One augmented reality app provides is a virtual tour of a 1980s pop culture museum housed in the basement.



Figure 1 The "Ready Player One" Augmented Reality Experiences via Facebook AR Effects (Millchannel, 2018)

There is disagreement over whether "Ready Player One"'s augmented reality marketing plan was successful. Monaco (2018) contends that although the film was seen as a success, its success was not necessarily ensured by the pre-release buzz. However, Raymundo (2018) said the movie's marketing effort needed to be more active and spark more interest. Overall, through raising engagement, boosting brand recognition, and presenting the movie's universe, the augmented reality features employed in the "Ready Player One" marketing campaign improved the movie's promotion (Akopyan, 2018; Deamer, 2018; Lane, 2018).

The Mandalorian AR Marketing Campaign

Google, Disney, and Lucasfilm have collaborated to create an AR mobile application based on the "The Mandalorian" Star Wars streaming series (Perez, 2020). According to Gashi (2020), the app employs augmented reality technology to create a rich environment in which viewers of The Mandalorian may get fully immersed in the show's universe and interact with their favourite characters, locations, and props. The Mandalorian Augmented Reality App is a component of a broader marketing campaign for the TV show, including commercials, merchandising, and other forms of promotion. The app aims to provide Star Wars fans with an interactive experience that will increase their appreciation for the series. Fans responded well to the campaign, which created excitement about the show (Lorrain, 2020).



Figure 2 The “Mandalorian”, Star Wars Series on Disney+ Augmented Reality Mobile Application (Lorrain, 2020)

Jumanji: The Next Level WebAR experience

"Jumanji: The Next Level" featured a WebAR experience as part of its marketing campaign, giving viewers a novel way to engage with the film. Developed by Trigger XR and 8th Wall, the WebAR experience was explicitly made for Sony Pictures' Jumanji: The Next Level theatrical campaign. Fans of the Jumanji franchise could experience new gameplay levels in a convincing virtual setting without installing any additional applications. They can explore each setting and interact closely with the actors. As part of the Jumanji: The Next Level WebAR experience, moviegoers could purchase tickets and play Candy Crush Saga levels themed after the film (PR Newswire, 2019). Celebrities like Dwayne "The Rock" Johnson shared the WebAR campaign on social media, and it was chosen as a finalist for the 2020 Auggie Awards' "Best Campaign" category (8th Wall, 2020). The movie, which later succeeded at the box office, was successfully promoted and hyped by the WebAR campaign.

A specially branded augmented reality effect was also made for the #JumanjiChallenge on TikTok. This challenge invites the TikTok community to transfer their real-life experiences into the Jumanji game. With the help of a specially designed effect, users were encouraged to raise their hands to the screen. Motion-activated technology then sucked them into the video game, which was set to the soundtrack of Jumanji. This inspired hundreds of thousands of users to create videos in which they imagined what it would be like to be a character in the game, changing their bodies, outfits, and locations (PR Newswire, 2019). Worldwide, the #JumanjiChallenge video has received over 6.1 billion views.

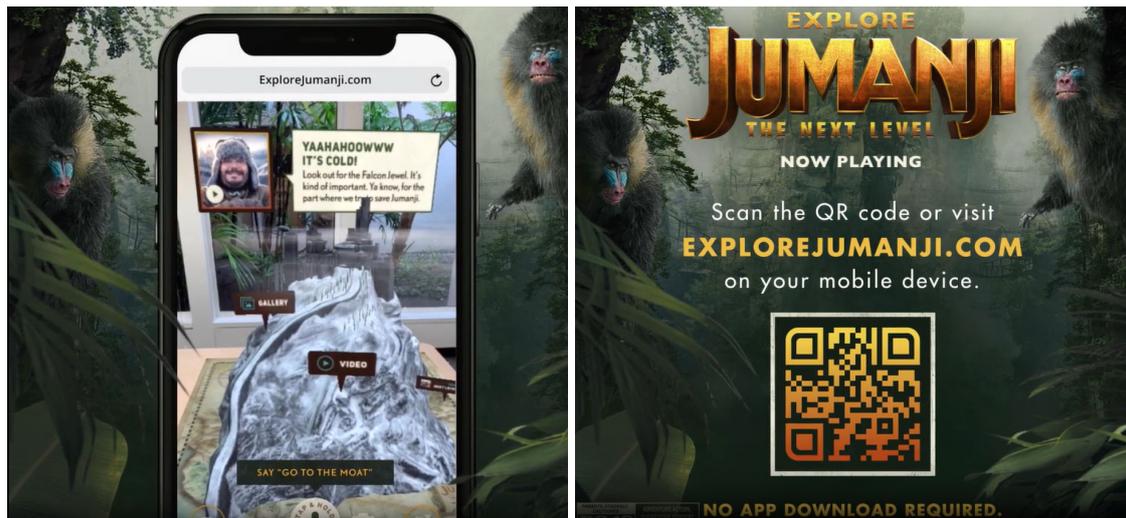


Figure 3 “Explore Jumanji: The Next Level” Web AR experience (8th Wall, 2020)

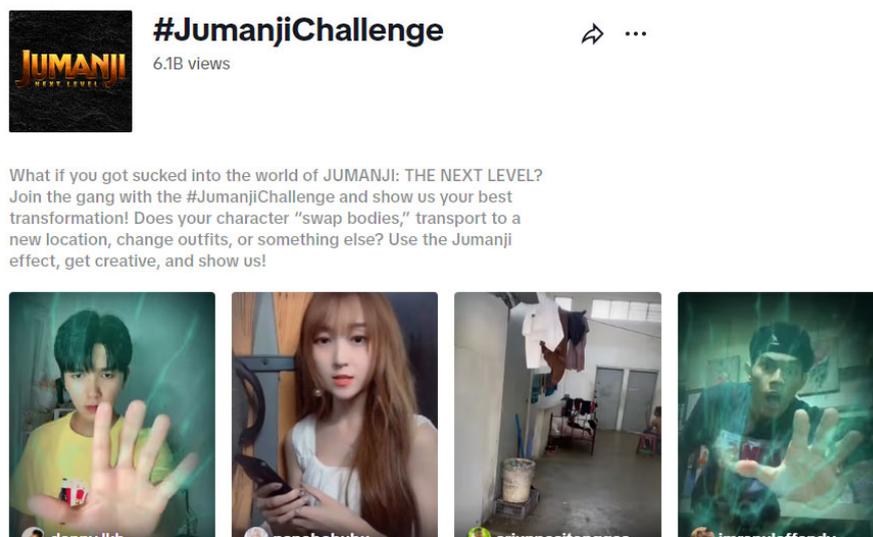


Figure 4 #JumanjiChallenge on TikTok (TikTok, 2023)

Jurassic World: Fallen Kingdom AR Experiences

Several augmented reality (AR) activities were a part of the Jurassic World: Fallen Kingdom advertising campaign. One augmented reality experience was a game that let players go on a real-world dinosaur hunt (Thilk, 2018). An additional augmented reality feature was a Facebook filter that superimposed a raptor onto users' images and videos (Heisler, 2019). The augmented reality experience for Jurassic World: Fallen Kingdom's Blu-ray and DVD release was created in collaboration between Universal Pictures Home Entertainment and Facebook. The AR experience brought the movie's dinosaurs to life on the phone (Moscaritolo, 2018).

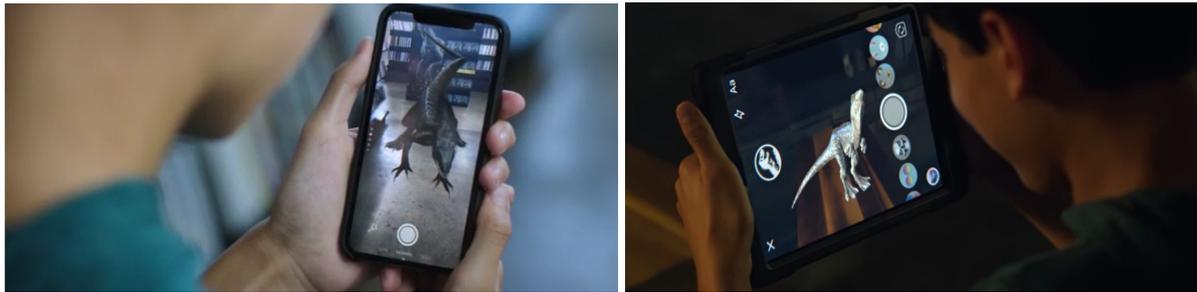


Figure 5 “Jurassic World: Fallen Kingdom” Dinosaur Hunt AR Experience (Moscaritolo, 2018)

Barbie the Movie AR-based Marketing Campaign

The 2023 Barbie film marketing campaign was a smashing success thanks to the augmented reality (AR) experiences developed by Warner Bros. Discovery and Snapchat. Snapchat's Barbie AR lens lets users virtually put on movie-themed costumes. There were several alternatives based on what Margot Robbie and Ryan Gosling wore in the film. Using Snapchat's Landmarkers technology, the campaign also digitally altered actual landmarks in AR by applying Barbie's pastel and pink colour scheme (Shaul, 2023). Companies can now use this technology to develop location-based augmented reality experiences. In addition to Snapchat, the Barbie movie marketing featured Instagram AR filters that let viewers try on virtual haircuts and makeup inspired by Barbie. Trailers, exclusive snippets, and behind-the-scenes content were all posted on the Barbie movie's official TikTok account (Izea, 2023). Users could apply various augmented reality (AR) effects to their films on this account, such as a background with Barbie and a virtual Barbie doll that would appear in the video. The Barbie movie became a cultural icon before it was even shown in theatres thanks to the marketing effort, which created a lot of talk and anticipation for the movie. With an estimated \$150 million in marketing expenses and a similar expenditure for the film, the film has already brought in more than \$1 billion at the box office (Chance, 2023).



Figure 6 “Barbie the Movie” AR Effects on Instagram and TikTok (Izea, 2023)



Figure 7 “Barbie the Movie” AR Lens on Snapchat (Shaul, 2023)

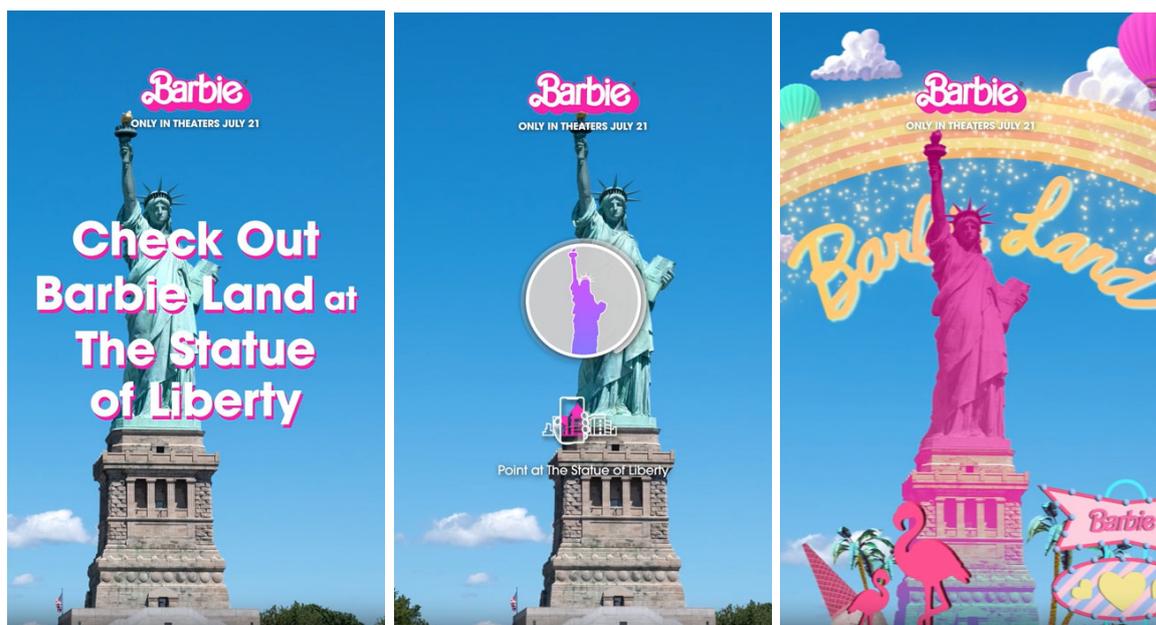


Figure 8 “Barbie the Movie” AR Landmarkers on Snapchat (Shaul, 2023)

The Contemporary Youth or Generation Z

Current youth, or Generation Z (Gen Z), was born between the late 1990s and early 2000s. Gen Z is a sizable and growing demographic, constituting a substantial portion of the movie-going audience. This generation has grown up with the internet and social media; they are native digital users (Henderson, 2023). Despite the advent of social media, streaming services, and high-quality home entertainment systems, Generation Z maintains a keen interest in cinemas. According to a

Fandango survey, 78% of Gen Z moviegoers said they were watching more films in theatres than before the pandemic. In addition, 96% of Gen Z individuals choose going to movies as their preferred method of spending time away from their homes (BoxOfficePro, 2022).

Being the first generation to grow up with the internet at their fingertips, members of Generation Z are more likely to use augmented reality (AR) devices than older generations. To appeal to such an online-savvy demographic, the film business has begun using augmented reality (AR) technology in movie advertising (Beltozar-Clemente et al., 2023). Furthermore, Generation Z's familiarity with augmented reality technology through platforms such as Snapchat, TikTok, and Instagram makes them more likely to engage with augmented reality-based movie promotions (Content Science Review, 2023; Informatica, 2023; Mediatool, 2023). AR-based movie promotions can attract a larger audience to theatres by providing a novel and engaging experiences that appeal to Generation Z's digital preferences. Casey (2023) notes that the digital natives, diverse interests, and pragmatic character of Generation Z contribute to their significant presence among moviegoers.

Technology Acceptance Model (TAM)

Due to its usefulness in understanding the factors that influence the acceptability of technology use, the Technology acceptability Model (TAM) has become the most widely used theoretical lens in augmented reality research (Du et al., 2022). TAM was initially created to explain the adoption of new technologies in general. However, it has since been extended to augmented reality (AR) to comprehend users' perceptions and interactions with AR objects (Oyman et al., 2022). According to the theory, people's attitudes towards technology systems and behavioural intentions to use them are determined by their perceived usefulness and ease of use (Park & Yoo, 2020). Technology acceptance, according to TAM, is a three-stage process wherein external factors set off cognitive reactions (perceived ease of use and perceived usefulness), which in turn create an affective response (attitude towards using technology/behaviour intention) that influences actual usage (Marikyan & Papagiannidis, 2023).

Theoretical Framework

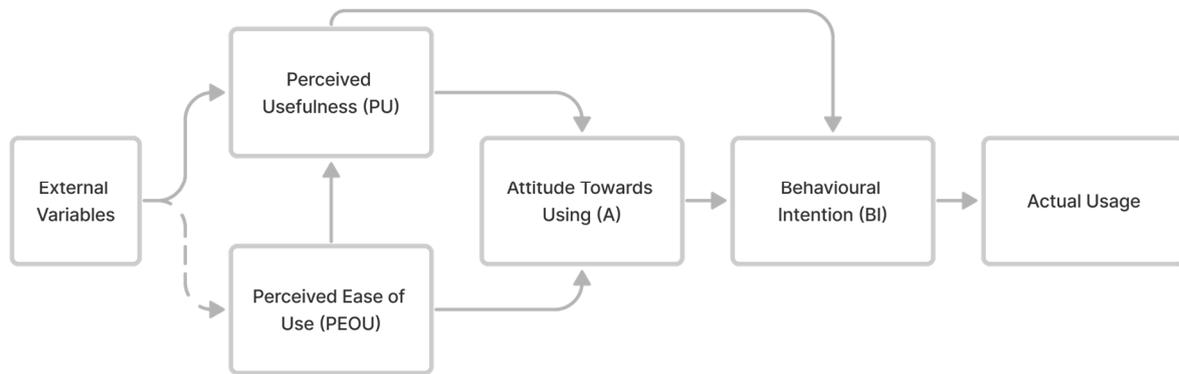


Figure 9 Theoretical Framework of the Study

This study's primary aim is to understand better Malaysian youths' perceptions of AR movie promotion to determine the best practices in creating AR-based promotional materials. The TAM framework is utilised as the fundamental basis for formulating the interview questions. It will be employed to identify and analyse the external variables, perceived ease of use, perceived usefulness, attitude, and behavioural intention of using AR promotional materials.

Methodology

Structured, open-ended interview questions were developed following the Technology Acceptance Model (TAM) and administered to the respondents in physical and virtual interview sessions. During the interview sessions, participants tested three distinct AR-based movie promotions integrated with the movie poster. Participants were asked for their feedback on the AR experiences after the testing. The interview sessions were recorded and transcribed before they were analysed thematically.

Sample and Data Collection

A poster for a local film called "Roh" was chosen to serve as the foundation for the AR experiences content in order to investigate the perspectives of young Malaysians on the AR-based promotion of films. 'Roh' is a Malaysian horror film based on local legends and mythology. The film portrays the story of a family who lives in a remote rural village that is haunted by demonic powers. The movie achieved a significant milestone for Malaysian filmmaking when it was nominated for Best International Feature Film at the 2021 93rd Academy Awards. Despite critical acclaim, it could not attract a large audience in Malaysia,

generating only about RM522,000 during its run-in theatres (Wikipedia contributors, 2023). The movie and its poster were chosen as the subject of the study. Prior research on the visual analysis of the movie poster was done by the same researchers using Gillian Rose's Visual Methodologies.



Figure 10 The Teaser Poster of 'Roh' Movie Embedded with a QR Code that can be Scanned to Experience AR Content (Poster designed by Siti Sarah Ibrahim, 2020)

The participants for this study were chosen from three universities in Malaysia, specifically Multimedia University (MMU), Management and Science University (MSU), and Kuala Lumpur Metropolitan University and College (KLMUC). The selection criteria included factors such as convenience, diversity and relevance. When it comes to convenience, the researchers who work at each institution have easy access to the students and may contact them whenever needed. Regarding diversity, the students come from various backgrounds and may have varied experiences and viewpoints to share with one another. As a result, they provide a diverse sample for research investigations. Students aged 18 to 25 years old, as well as members of Generation Z, make up the population that is most pertinent to this study from a relevancy standpoint.

A total of 18 students took part in the interview sessions. The participants are limited to those attached to higher education institutions in the vicinity of the Klang Valley. This geographical restriction is justified by the abundance of cinemas in this area, suggesting that these participants could represent the target audience for film promotional efforts.

Table 1 The participants' demographics profile

Student	Age	Gender	Race	Origin	Field of Study
Student 1	20	Female	Malay	Selangor	Advertising Design
Student 2	21	Female	Chinese	Ipoh, Perak	Advertising Design
Student 3	23	Female	Chinese	Penang Island	Advertising Design
Student 4	20	Female	Malay	Kajang, Selangor	Advertising Design
Student 5	20	Female	Chinese	Batu Pahat, Johor	Advertising Design
Student 6	22	Female	Indian	Puchong, Selangor	Advertising Design
Student 7	22	Male	Chinese	Kuching, Sarawak	Advertising Design
Student 8	22	Male	Malay	Puchong, Selangor	Advertising Design
Student 9	21	Male	Malay	Muar, Johor	Advertising Design
Student 10	22	Male	Indian	Klang, Selangor	Advertising Design
Student 11	22	Male	Indian	Semenyih, Selangor	Advertising Design
Student 12	20	Male	Malay	Kuantan, Pahang	Graphic Design
Student 13	21	Male	Malay	Teluk Intan, Perak	Graphic Design
Student 14	22	Female	Malay	Ampang, Selangor	Multimedia
Student 15	21	Female	Malay	Pasir Putih, Kelantan	Multimedia
Student 16	23	Female	Indian	Cheras, K.Lumpur	Multimedia
Student 17	21	Male	Indian	Klang, Selangor	Graphic Design
Student 18	20	Male	Indian	Ipoh, Perak	Graphic Design

Design Process

The researchers developed three AR-based movie promotional materials that can be experienced by scanning a QR code (360° AR experience via YouTube and Adobe Aero interactive AR) or searching on Instagram, Facebook and TikTok (social media AR filters). The QR code was embedded into the design of the 'Roh' movie poster (Figure 10) to be scanned by the participants. The concepts of the three AR applications are shown in Table 2. The development processes of the AR-based movie promotions are shown in Figure 11 to Figure 16.

Table 2 Ideation of the three AR-based movie promotions

Output	Goal	Circulation	Applications Used
360° AR Experience via YouTube	To clarify information that is not apparent on the movie poster. The information includes the other important characters whose lives are being disrupted by the antagonist (the child in the poster) and the setting where all the terror occurrences occur.	<ul style="list-style-type: none"> Movie poster with QR code embedded Printed poster (out-of-home) Digital touchpoints (website or social media platforms) 	<ul style="list-style-type: none"> Autodesk Maya Twinmotion YouTube Adobe Premiere Pro Spatial Media Metadata Injector

Adobe Aero Interactive AR	To provide the movie's trailer, synopsis, and connections to its social media accounts in a more interactive way (AR).	Movie poster with QR code embedded <ul style="list-style-type: none"> Printed poster (out-of-home) Digital touchpoints (website or social media platforms) 	<ul style="list-style-type: none"> Adobe Photoshop Adobe Aero
Social Media AR Filters	To create hype on social media platforms by encouraging users to use the AR filters on their TikTok, Instagram and Facebook.	<ul style="list-style-type: none"> TikTok Instagram Facebook 	<ul style="list-style-type: none"> Adobe Photoshop Effect House Spark AR

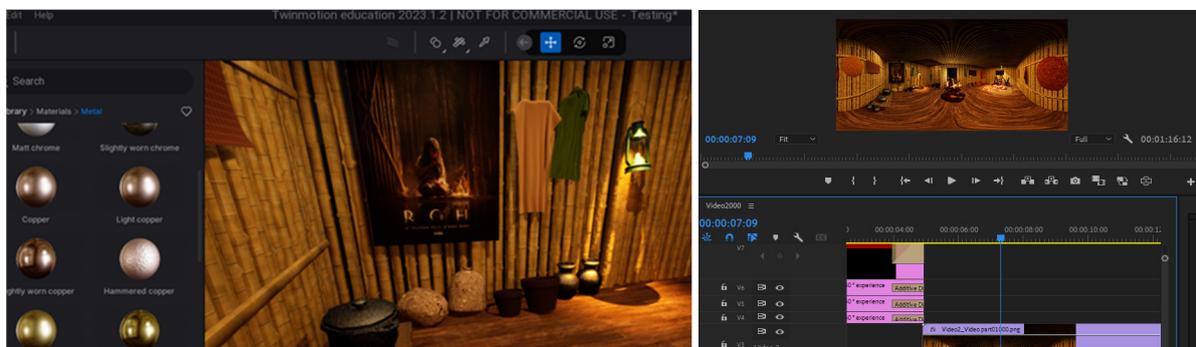


Figure 11 The Creation of the 360° AR Experience via YouTube was Done in Autodesk Maya and Adobe Premiere Pro and Published in YouTube



Figure 12 The 360° Video on YouTube After Scanning the QR Code

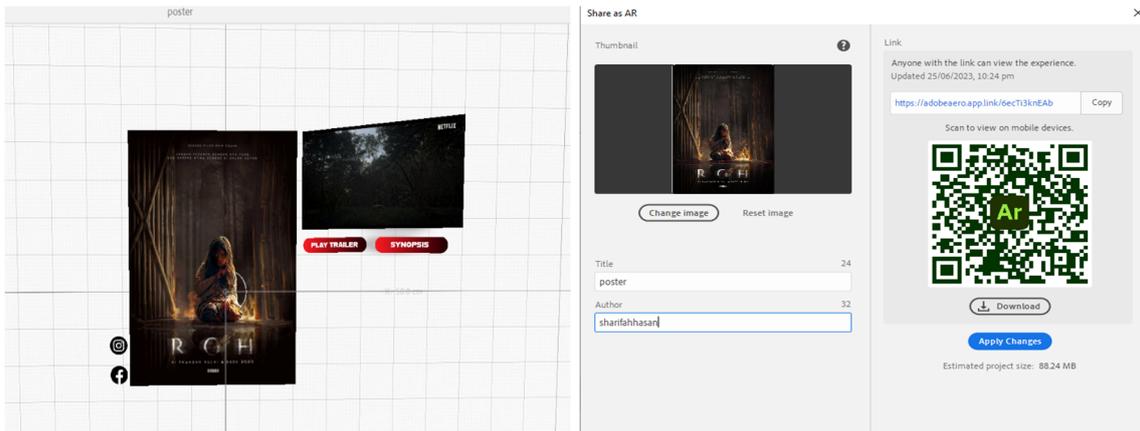


Figure 13 Using Adobe Photoshop, Adobe After Effects and Adobe Aero to Create the Adobe Aero Interactive AR

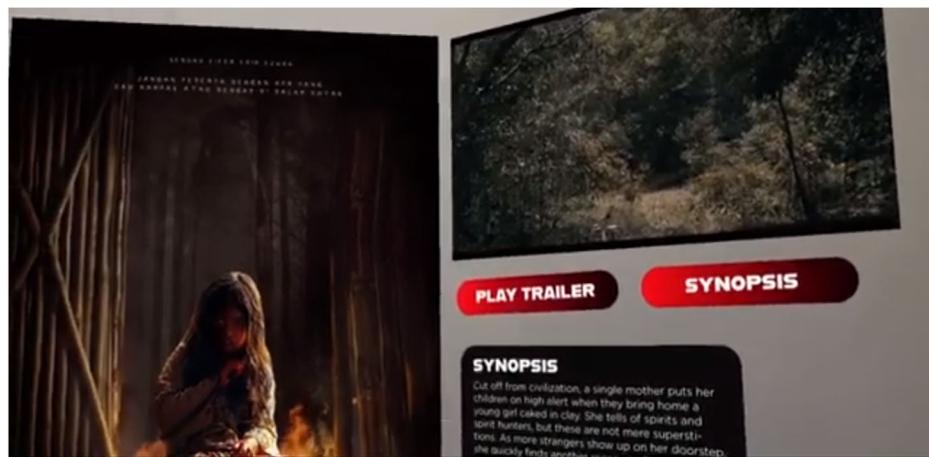


Figure 14 The Adobe Aero Interactive AR After Scanning the QR Code

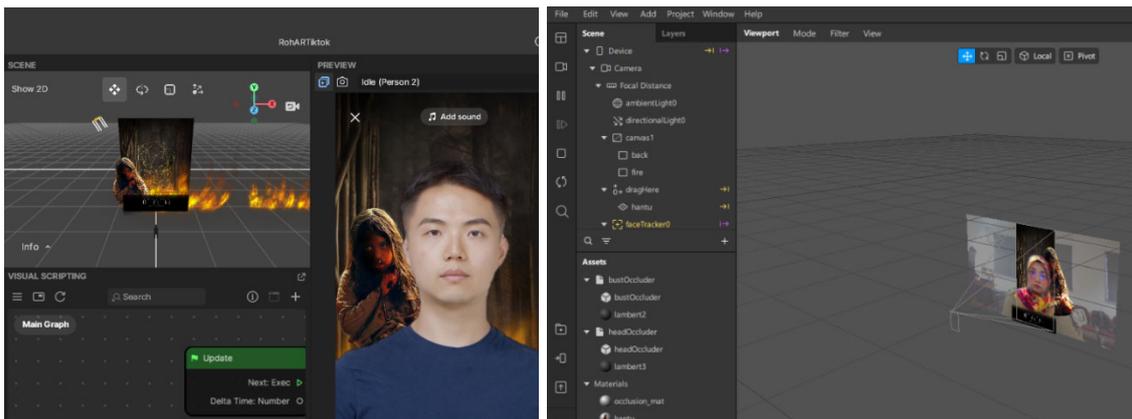


Figure 15 Creation of AR Filter on Meta Spark AR for Instagram and Facebook, and Effect House for TikTok

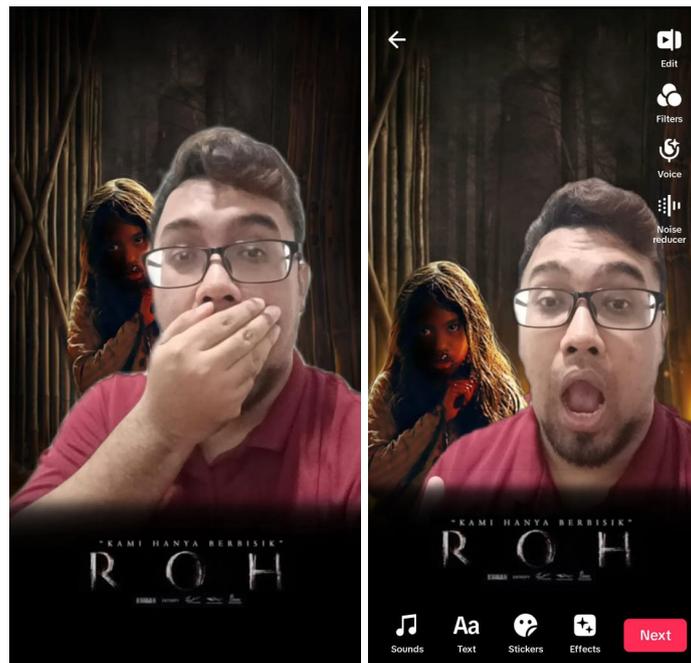


Figure 16 Screenshots of the Social Media AR Filters (TikTok and Instagram)

Data Analysis

Based on the Technology Acceptance Model (TAM), the transcribed interview sessions were analysed thematically to find themes and codes based on these constructs: external variables, perceived ease of use, perceived usefulness, attitude and behavioural intention.

External Variables

External variables in the Technology Acceptance Model (TAM) are supplementary factors that can influence a user's acceptance of a technology, in addition to the significant constructs of perceived usefulness and perceived ease of use (Hubona & Whisenand, 1995). Table 3 summarises the participants' perspectives on the AR-based movie promotions, focusing on two external variables: perceived informativeness and enjoyment.

Table 3 The thematic analysis of the participants on the external variables

AR Application	Themes / External Variables	Codes	Example quotes from respondents
360° AR Experience via YouTube	Perceived Informativeness	<ul style="list-style-type: none"> ● Clarifying ● Additional digital content ● Shows more characters and elements of the environment ● Detailed ● Atmospheric 	<p>“The YouTube 360° AR Experience help clarify the meaning behind the visual.”</p> <p>“The AR allows viewers to engage with additional digital content that enhances their understanding of the poster.”</p>

		<ul style="list-style-type: none"> ● Enhance comprehension 	<p>“The YouTube 360° is more detailed and atmospheric, it helps in understanding the meaning behind the static movie poster.”</p>
	Perceived Enjoyment	<ul style="list-style-type: none"> ● Entertaining ● Exciting ● Fascinating ● Intriguing ● Engaging ● Fun 	<p>“The 360° AR is easy to use and entertaining.”</p> <p>“The 360° AR experience is extremely fascinating and intriguing.”</p> <p>“The YouTube 360° AR Experience is an awesome and fun way to interact with content.”</p>
Adobe Aero Interactive AR	Perceived Informativeness	<ul style="list-style-type: none"> ● Informative ● Trailers ● Synopsis ● Clarifying ● Solid concept 	<p>“Adobe Aero AR offers the trailer and synopsis that I can watch and read to learn more about the film.”</p> <p>“The concept of displaying a trailer and synopsis when users scanned a QR code is solid.”</p> <p>“The Adobe Aero AR is second in clarifying the meaning of the visual of the static movie poster.”</p>
Social Media AR Filters	Perceived Enjoyment	<ul style="list-style-type: none"> ● Interesting ● Entertaining ● Enjoyable ● Fun 	<p>“The AR filters are also enjoyable to use.”</p> <p>“The TikTok and Instagram AR filters are interesting and enjoyable to use.”</p> <p>“It is simple for users to do, entertaining and interesting, yet it has a huge impact when it becomes a hit or trending.”</p> <p>“The augmented reality (AR) filters on social media are an awesome and fun way to interact with content.”</p>

Perceived Ease of Use

In the Technology Acceptance Model (TAM), perceived ease of use (PEOU) refers to the user's perception of how simple or complex a given technology is to use (He et al., 2018). A technology characterised by ease of learning and utilisation will exhibit a greater PEOU in comparison to a system that is intricate or challenging to operate (Marikyan & Papagiannidis, 2023). Table 4 presents a comprehensive summary of the viewpoints expressed by the participants on the AR-based movie promotions, with a specific emphasis on perceived ease of use.

Table 4 The thematic analysis of the participants on the perceived ease of use

AR Application	Theme	Codes	Example quotes from respondents
360° AR Experience via YouTube	Perceived Ease of Use	<ul style="list-style-type: none"> ● Easy to use ● Simple to use ● Convenient ● Familiar ● Built-in 	<p>“QR codes make it easy for people to try out AR apps because QR code scanners are now built into every phone. A familiar mobile app like YouTube is used for the 360° AR Experience.”</p> <p>“YouTube 360° is simple to use because it uses an app that I already have on my phone, which is YouTube.”</p> <p>“The QR code that goes to YouTube 360° is undoubtedly the most convenient.”</p>
Adobe Aero Interactive AR	Perceived Ease of Use	<ul style="list-style-type: none"> ● Inconvenient ● Not user-friendly ● Requires installation ● Impractical ● Time-consuming ● Complicated ● iPhone users only 	<p>“It is quite inconvenient. The use of web-based AR or apps that are available on everyone's phones is the way to go.”</p> <p>“The concept behind Adobe Aero interactive AR is flawed, and the actual experience is time-consuming.”</p> <p>“I have to install a different application in order to use it, which makes Adobe Aero less user-friendly.”</p> <p>“The Adobe Aero AR is quite odd, as I do not believe it is practicable to view the trailer video on a wall, and the video player also is quite small.”</p> <p>“The part where I must install Adobe Aero seems a bit complicated.”</p> <p>“But for the Adobe Aero AR, it is only available to iPhone users. So, it will be less effective compared to the other distribution methods.”</p>
Social Media AR Filters	Perceived Ease of Use	<ul style="list-style-type: none"> ● Familiar ● Accessible ● Easy to use ● Seamless ● Simple to use 	<p>“I think the filters on social media are awesome and fun ways to interact with content. And yes, it is easy to use.”</p> <p>“I believe Instagram and TikTok filters would provide the most seamless experience because everyone is already familiar with how to use filters.”</p> <p>“The TikTok and Instagram filters are also accessible via the QR codes provided, and we can certainly locate them if we go through the list of effects.”</p> <p>“TikTok, and Instagram filters are simple to use because they make use of apps that I already have on my phone, such as TikTok, and Instagram.”</p>

Perceived Usefulness

The concept of Perceived Usefulness (PU) pertains to the user's subjective evaluation of the extent to which technology facilitates accomplishing their objectives (Jimenez et al., 2020).

Various factors influence PU, including the user's comprehension of the technology, expectations of the technology, and perceived benefits of utilising the technology. A technology that is perceived to be helpful and beneficial will have a greater PU than one that is not perceived as useful or beneficial (Marikyan & Papagiannidis, 2023). The participants' perspectives on the AR-based movie promotions are summarised in Table 5, focusing on the applications' perceived usefulness.

Table 5 The thematic analysis of the participants on the perceived usefulness

AR Application	Theme	Codes	Example quotes from respondents
360° AR Experience via YouTube	Perceived Usefulness	<ul style="list-style-type: none"> • More characters and rich elements • Varying degrees of information • Clarify information • Intense and engaging • Make the poster more understandable • Convey a sense of horror • Immersive experience • Unique and innovative 	<p>“More characters and rich elements of the environment are shown in 360° AR on YouTube.”</p> <p>“The augmented reality (AR) applications provide me with varying degrees of information regarding the meaning behind the visual.”</p> <p>“The YouTube 360° AR video did clarify some information about the movie because it allowed me to see the house where the major location of the movie is, as well as other people that are afraid of the small girl (the main antagonist).”</p> <p>“The 360° experience is more intense and engaging than the static movie poster.”</p> <p>“Effectively convey a sense of horror.”</p> <p>“This is a one-of-a-kind, cutting-edge, fully immersive experience.”</p> <p>“I think the most engaging and unique experience would be the 360° AR.”</p> <p>“The experience of using the AR applications is exciting and innovative.”</p>
Adobe Aero Interactive AR	Perceived Usefulness	<ul style="list-style-type: none"> • Learn more about the film • Creates excitement 	<p>“I was able to learn more about the meaning behind the poster's visuals by using the Adobe Aero AR.”</p> <p>“Perhaps after watching the trailer and reading the synopsis, I will feel more excited to watch the movie.”</p>
Social Media AR Filters	Perceived Usefulness	<ul style="list-style-type: none"> • Not useful for learning about the film • No context • Simple and entertaining, with a big impact 	<p>“I believe the emphasis is on enjoyable things to do with the filter rather than on clarifying info.”</p> <p>“The filters provide no context, I believe the purpose is just for fun and virality.”</p> <p>“Simple for users to do, entertaining and interesting, yet it has a huge impact when it becomes a hit or trending.”</p>

Attitude

In TAM, attitude refers to a person's subjective assessment of how they feel and think regarding the usefulness and usability of a technology. The presence of a favourable disposition towards utilising a certain technology is very probable to result in increased user acceptance and adoption. In contrast, an unfavourable attitude towards using a certain technology is expected to result in lower levels of user acceptance and uptake (Marikyan & Papagiannidis, 2023). Table 6 summarises the respondents' opinions on their attitude towards the AR-based movie promotions.

Table 6 The thematic analysis of the participants on the attitudes towards the AR-based movie promotions.

AR Application	Theme	Codes	Example quotes from respondents
360° AR Experience via YouTube	Attitude towards using	<ul style="list-style-type: none"> • Feel scarier than the static poster • Terrifying and thrilling • Curious • Eager to use 	<p>“The 360° AR version feels a lot scarier than the static poster.”</p> <p>“The 360° AR experience is undoubtedly more terrifying and thrilling. It appeals to me greatly.”</p> <p>“It is quite uncommon in Malaysia, it will spark the audience's curiosity in trying out the AR and persuade them to watch the movie.”</p> <p>“If this is a real promotional effort put into a real movie poster, I believe users would be eager to test it.”</p>
Adobe Aero Interactive AR	Attitude towards using	<ul style="list-style-type: none"> • Hassle • Lazy to install the app • Boring • Never heard about it 	<p>“Some people are too lazy to install the Adobe Aero app on their phone.”</p> <p>“The method of installing certain applications before we are able to scan is a bit of hassle.”</p> <p>“The concept behind Adobe Aero interactive AR is flawed, and the actual experience is boring.”</p> <p>“The Adobe Aero, is unlikely to be preferable because I do not believe anyone has ever heard of it.”</p>
Social Media AR Filters	Attitude towards using	<ul style="list-style-type: none"> • Positive on the potential of going viral • Positive on the smart idea 	<p>“I believe that the AR social media filters are a great idea for advertising because I feel like it has the potential to go viral and turn into a phenomenon where people use the filters before or after watching a movie and share them on social</p>

media.”

“A smart idea to employ AR in conventional movie posters as a promotional approach, particularly the TikTok and Instagram filters, because they may go viral and people are able to quickly find the filters on the effects list.”

Behavioural Intention to Use

Behavioural intention to use refers to the degree to which individuals express their willingness to persist in utilising novel technology or media (Peng & Yan, 2022). It is subject to the effect of various elements, such as the individual's attitude towards the utilisation of technology, perceived usefulness, and perceived ease of use (Marikyan & Papagiannidis, 2023). The participants' input, specifically about behaviour intention, is summarised in Table 7.

Table 7 The thematic analysis of the participant's behavioural intention using the AR-based movie promotions

AR Application	Theme	Codes	Example quotes from respondents
360° AR Experience via YouTube	Behavioural intention to use	<ul style="list-style-type: none"> ● Fun to try ● Curious to try ● Become more interested ● Want to try new things ● Fully utilised AR 	<p>“It is a lot of fun to try out. And most likely shareable by everyone.”</p> <p>“The use of AR on a static movie poster is quite uncommon in Malaysia, it will spark the audience's curiosity in trying out the AR and persuade them to watch the movie.”</p> <p>“Being able to see the surroundings rather than simply a static movie poster in one dimension makes the 360° AR incredibly engaging. I become more interested in the plot and want to see the movie in a cinema.”</p> <p>“People want to try new things, and even if the movie isn't all that great, what matters is that people remember the promotional efforts.”</p> <p>“With the advent of technology and the internet, I believe it is best to fully utilise such technologies as AR for advertising purposes.”</p>
Adobe Aero Interactive AR	Behavioural intention to use	<ul style="list-style-type: none"> ● No-go ● Doubt on using it ● Stick to using static movie poster 	<p>“The augmented reality experience should be accessible through any web-based or commonly used application. For me, this means that Adobe Aero-based distribution is a no-go.”</p> <p>“I doubt that many people would want to try out augmented reality (AR) by installing a new</p>

			application, in this case, Adobe Aero.”
			“I still feel that companies should just stick to using static movie posters as a promotional strategy.”
Social Media AR Filters	Behavioural intention to use	<ul style="list-style-type: none"> • Worth sharing • Curious 	<p>“The experience is really intriguing and worth sharing with others.”</p> <p>“People will be curious when they see lots of people using the filters, which will help to raise awareness of the movie.”</p>

Findings

External Variables

Based on the data analysis, two variables influencing the perceived usefulness can be identified: informativeness and enjoyment. Using interactive-additional information like the 360° video, movie trailer, and synopsis, the AR-based movie promotions, especially the 360° AR experience via YouTube and Adobe Aero Interactive AR, provide context for the static movie poster's visual. This variable of perceived informativeness leads to a positive perceived usefulness. The seamless and engaging nature of the fun-immersive AR-based movie promotions contributes to a positive perception of usefulness because the immersive experience enhances the enjoyment of film comprehension.

Perceived Ease of Use

Most respondents agree that the social media AR filters and 360° AR experience via YouTube are effortless to use, especially when paired with the QR codes. It is convenient and seamless because it uses familiar applications like YouTube, Instagram and TikTok. In addition, the QR code scanner uses an application that is pre-installed on the user's smartphone, so scanning the static movie poster to experience augmented reality is hassle-free. Conversely, the Adobe Aero interactive AR has been subject to criticism about its ease of use, primarily due to its limited accessibility exclusively to iPhone users and the requirement for application installation, which is viewed as tedious.

Perceived Usefulness

Based on the data analysis, the researchers discovered that the AR application, particularly the 360° AR experience via YouTube, was regarded favourably in terms of usefulness due to its

informativeness, enjoyment, and ease of use. The respondents believe that utilizing the AR application has improved their comprehension of the poster's visual meaning and sparked an interest in learning more about the movie. The Adobe Aero interactive AR is also perceived as useful because it offers a trailer and a film synopsis, even though it is not as user-friendly as the other AR-based movie promotions. The social media AR filters focus more on giving consumers fun and amusement than providing context for the movie.

Attitude

Respondents generally have a positive attitude towards utilizing augmented reality applications, which is especially true for the 360° AR experience via YouTube and social media AR filters. This is because both of these applications received favourable ratings for the perceived ease of use and perceived usefulness. However, respondents' attitudes towards the Adobe Aero interactive are generally unfavourable, owing to its poor perceived ease of use.

Behavioural Intention

Most respondents emphasised how augmented reality (AR) is an advertising strategy that is becoming increasingly popular in the film industry. According to some respondents, the adoption of augmented reality (AR) for movie advertising will eventually become a new trend. There was a minority opinion that felt the film's promotion should remain limited to traditional, static movie posters. However, most of them agree that augmented reality in advertising is effective because of the unique experience of interacting with a movie poster. It is an excellent concept to use augmented reality (AR) as a supplementary approach to promoting films, mainly if the experience and usage of the strategy are seamless.

Conclusion

In conclusion, the research findings indicate that Malaysian youths positively perceive augmented reality (AR) usage in movie promotion while retaining conventional methods such as static movie posters. Gen Z is noted for being socially concerned and appreciating authenticity and relevance in relationships between brands and consumers (Gomez, 2023). As such, they are willing to explore new promotional strategies, particularly ones that are informational and entertaining. However, this digital-savvy generation likes seamless AR experiences that only require a little extra effort. One strategy for creating AR-based movie promotions for them is to leverage WebAR or AR promotional materials that employ popular applications like TikTok, Instagram,

Facebook, or YouTube. The virality of the AR content is another strategy that appeals to youngsters. They enjoy experimenting with current popular culture. According to a study (Mumpuni et al., 2021), peer influence significantly shapes Generation Z's movie-viewing tastes and behaviours. Thus, they will be more likely to utilize and share AR filters (AR-based movie promotion) that are, for them, cool and hip if their friends and followers do so, as well as raise awareness of the movie being advertised. Gen Z are often afflicted with FOMO (fear of missing out). People constantly see the highlights of their friends' lives on social media and worry that they are missing out if they are not participating in the same activities (Ferguson, 2021). The findings also reveal that the youths prefer using social media sites like YouTube or Instagram to watch movie trailers and read synopses rather than using an AR application. They think it is peculiar and impractical. The following are other significant insights from the research:

- i. Augmented reality (AR) technology enhances narrative conveyance by providing viewers with more engaging and immersive storytelling environments in which to participate. Through the use of digital overlays in real-world environments, augmented reality (AR) may bring movie scenes and characters to life, enhancing the storytelling and making it more memorable.
- ii. With the use of AR, a film can stand out from the crowd and attract more viewers than its competitors. People are more likely to talk about and write about AR experiences on social media and in the media because they are unique and interesting.
- iii. Because AR gets moviegoers actively involved in the advertising process, it helps them feel more connected to the film. Interacting with augmented reality (AR) features in movie posters or promotional materials creates a sense of immersion and personalization, leading to higher engagement and emotional connection with the film.

References

- [1] Akopyan, M. (2018). 'Ready Player One' Uses VR, Guerrilla Marketing At SXSW To Promote Film. AList. <https://www.alistdaily.com/entertainment/ready-player-one-sxsw/>
- [2] Bell, D. R., Gallino, S., and Moreno, A. (2018). Offline showrooms in omnichannel retail: demand and operational benefits. *Manag. Sci.* 64, 1629–1651. doi: 10.1287/mnsc.2016.2684
- [3] Beltozar-Clemente, S., Sierra-Liñan, F., Pucuhuayla-Revatta, F., Zapata-Paulini, J., & Cabanillas-Carbonell, M. (2023). Digital tool for film promotion through the use of augmented reality. *International Journal of Interactive Mobile Technologies*, 17(05), 36–56.

- [4] BoxOfficePro. (2022). Fandango Gen Z Moviegoer Study Reveals Avatar: The Way of Water, Strange World, & Babylon as Most Anticipated Holiday Flicks - Boxoffice. Boxoffice - Cinema News Intl. <https://www.boxofficepro.com/fandango-gen-z-moviegoer-study-reveals-avatar-the-way-of-water-strange-world-babylon-as-most-anticipated-holiday-flicks/>
- [5] Casey, A. E. (2023). What are the core characteristics of Generation Z? The Annie E. Casey Foundation. <https://www.aecf.org/blog/what-are-the-core-characteristics-of-generation-z>
- [6] Chance, Z. (2023). The secret of the Barbie movie's marketing success. Yale Insights. <https://insights.som.yale.edu/insights/the-secret-of-the-barbie-movies-marketing-success>
- [7] Chase, N. (2023). Marketing a Film: The Ultimate Movie Promotion Guide for 2023. Neil Chase Film. <https://neilchasefilm.com/marketing-a-film/>
- [8] Chen, Y. (2021). Research on Marketing Strategies of Different Movies and Film Market. *Advances in Economics, Business and Management Research*.
- [9] Content Science Review. (2023). Gen Z Content Consumption Fact Sheet - Content Science Review. <https://review.content-science.com/gen-z-content-consumption-fact-sheet/>
- [10] Deamer, L. (2018). Haptics in Ready Player One: an analysis of fact and fiction. <https://www.electronicsspecifier.com/products/vr-ar/haptics-in-ready-player-one-an-analysis-of-fact-and-fiction>
- [11] Du, Z., Li, J., & Wang, T. (2022). Augmented Reality Marketing: A systematic literature review and an agenda for future inquiry. *Frontiers in Psychology*, 13.
- [12] Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kéfi, H., Krishen, A. S., Kumar, V., Rahman, M. M., Raman, R., Rauschnabel, P. A., Rowley, J., Salo, J., Tran, G. A., & Wang, Y. (2021). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management*, 59, 102168.
- [13] Fry, A. (2021). What is Gen Z Watching? How to Reach the Digital Natives. MIPBlog. <https://mipblog.com/2021/03/what-is-gen-z-watching-how-to-reach-the-digital-natives/>
- [14] Ferguson, M. (2021, December 14). Why FOMO Among Gen Z is More Real Than Ever in a COVID-19 World. Medium. <https://medium.com/dosomethingstrategic/why-fomo-among-gen-z-is-more-real-than-ever-in-a-covid-19-world-5cdc5caeee57>
- [15] Gamboa-Ramos, M., Gómez-Noa, R., Iparraguirre-Villanueva, O., Cabanillas-Carbonell, M., & Salazar, J. L. H. (2021). Mobile Application with Augmented Reality to Improve Learning in Science and Technology. *International Journal of Advanced Computer Science and Applications*, 12(10).

- [16] Gashi, A. (2020). Advertising Strategy Within Disney Mandalorian Campaign and The Shopper Agency B2B Campaign.
- [17] Gomez, R. (2023). How to make sure you're marketing to Gen Z the right way. Sprout Social. <https://sproutsocial.com/insights/marketing-to-gen-z/>
- [18] He, Y., Chen, Q., & Kitkuakul, S. (2018). Regulatory focus and technology acceptance: Perceived ease of use and usefulness as efficacy. *Cogent Business & Management*, 5(1), 1459006.
- [19] Henderson, A. (2023). 7 characteristics of Gen Z in 2023 - GWI. GWI. <https://blog.gwi.com/marketing/generation-z-characteristics/>
- [20] Hubona, G. S., & Whisenand, T. G. (1995). External Variables and the Technology Acceptance Model. *AMCIS 1995 Proceedings*. <https://aisel.aisnet.org/amcis1995/85/>
- [21] Ibrahim, S. S. (2020). Roh Movie Poster Competition 2020. Behance. <https://www.behance.net/gallery/103531361/Roh-Movie-Poster-Competition-2020>
- [22] Independent Cinema Office. (2017). Understanding audiences - Independent Cinema Office. Independent Cinema Office. <https://www.independentcinemaoffice.org.uk/advice-support/how-to-start-a-cinema/understanding-audiences/>
- [23] Informatica. (2023). Generation Z and social Media: Navigating the digital landscape. *Aprende Informática*. <https://aprendeinformaticas.com/generation-z-and-social-media/>
- [24] Izea. (2023). Barbie social media trends to try. IZEA. <https://izea.com/resources/barbie-social-media-trends/>
- [25] Javornik, A., Marder, B., Pizzetti, M., and Warlop, L. (2021). Augmented self-the effects of virtual face augmentation on consumers' self-concept. *J. Bus. Res.* 130, 170–187.
- [26] Jerrick, D., & Crosby, E. (2013). The Effectiveness of Film Trailers: Evidence from the College Student Market. *Journal of Undergraduate Research XVI* (2013). <http://www.uwlax.edu/urc/JUR-online/PDF/2013/Jerrick.David.Marketing.pdf>
- [27] Jimenez, I. a. C., García, L. C. C., Violante, M. G., Marcolin, F., & Vezzetti, E. (2020). Commonly used external TAM variables in e-Learning, agriculture and virtual reality applications. *Future Internet*, 13(1), 7.
- [28] Karray, S., & Debernitz, L. (2015). The effectiveness of movie trailer advertising. *International Journal of Advertising*, 36(2), 368–392.
- [29] Lane, M. (2018). 'The Ready Player One Challenge' and The Maze of Experiential Marketing. *Medium*. <https://noproscaenium.com/the-ready-player-one-challenge-and-the-maze-of-experiential-marketing-296dd287b6bc>

- [30] Lazo-Amado, M., Cueva-Ruiz, L., & Andrade-Arenas, L. (2021). e-Business Model to Optimise Sales through Digital Marketing in a Peruvian Company. *International Journal of Advanced Computer Science and Applications*, 12(11).
- [31] Liao, L., & Huang, T. (2021). The effect of different social media marketing channels and events on movie box office: An elaboration likelihood model perspective. *Information & Management*, 58(7), 103481.
- [32] Limpeeticharoenchot, S., Cooharajanone, N., Chanvanakul, T., Tuaycharoen, N., & Atchariyachanvanich, K. (2020). Innovative mobile application for measuring big data maturity: case of SMEs in Thailand. *International Journal of Interactive Mobile Technologies*, 14(18), 87.
- [33] Lorrain, M. (2020). "The Mandalorian" in AR? This is the way. Google. <https://blog.google/products/pixel/mandalorian-in-ar/>
- [34] Liu, J., Carlson, J. N., & Chen, S. (2020). How augmented reality affects advertising effectiveness: The mediating effects of curiosity and attention toward the ad. *Journal of Retailing and Consumer Services*, 54, 102020.
- [35] Marikyan, D. & Papagiannidis, S. (2023) Technology Acceptance Model: A review. In S. Papagiannidis (Ed), *TheoryHub Book*. <https://open.ncl.ac.uk/theoryhub-book/>
- [36] Marr, B. (2022). The 5 Biggest Media And Entertainment Technology Trends In 2022. *Forbes*. <https://www.forbes.com/sites/bernardmarr/2022/03/02/the-5-biggest-media-and-entertainment-technology-trends-in-2022/?sh=1087e5032773>
- [37] Mediatool. (2023). Gen Z Trends 2023: What marketers need to know. Mediatool. <https://mediatool.com/blog/gen-z-trends>
- [38] Millchannel. (2018). Ready Player One: Facebook AR Effects [Video]. YouTube. <https://www.youtube.com/watch?v=MnTSQ7QM6pk>
- [39] Mitrović, K., Novakovic, N., Spajić, J., & Cosic, I. (2021). Augmented Reality in Marketing – State of Art. In *Proceedings of the 32nd International DAAAM Symposium 2021* (pp. 0566–0575).
- [40] Monaco, D. (2018). Can "Ready Player One" inspire a new career path? www.linkedin.com. <https://www.linkedin.com/pulse/can-ready-player-one-inspire-new-career-path-douglas-monaco>
- [41] Moscaritolo, A. (2018). "Jurassic World" AR experience brings dinosaurs to life. *PCMAG*. <https://www.pcmag.com/news/jurassic-world-ar-experience-brings-dinosaurs-to-life>
- [42] Mulla, T. (2022). Assessing the factors influencing the adoption of over-the-top streaming platforms: A literature review from 2007 to 2021. *Telematics and Informatics*, 69, 101797.

- [43] Mumpuni, R. A., Amaliyah, A., Noor, F., Laksmiwati, I., & Lukkitawati, L. (2021). Understanding the intention of generation Z on Netflix and Viu streaming services. *ProTVF: Jurnal Kajian Televisi Dan Film*, 5(2), 145.
- [44] Nica, E. (2019). Cyber-Physical production networks and advanced digitalization in industry 4.0 manufacturing systems: sustainable supply chain management, organizational resilience, and data-driven innovation. *Journal of Self-governance and Management Economics*, 7(3), 27.
- [45] Öcal, F., & Nasır, S. (2016). Film marketing. In *Advances in marketing, customer relationship management, and e-services book series*.
- [46] O'Keefe-Smith, E. (2023). *Social Media Strategies That Lead to Success in the Film Industry* [PhD Dissertation]. Walden University.
- [47] Oyman, M., Bal, D., & Ozer, S. (2022). Extending the technology acceptance model to explain how perceived augmented reality affects consumers' perceptions. *Computers in Human Behavior*, 128, 107127.
- [48] Park, M., and Yoo, J. (2020). Effects of perceived interactivity of augmented reality on consumer responses: a mental imagery perspective. *J. Retail. Consum. Serv.* 52:101912.
- [49] Peng, M. Y., & Yan, X. (2022). Exploring the Influence of Determinants on Behavior Intention to Use of Multiple Media Kiosks Through Technology Readiness and Acceptance Model. *Frontiers in psychology*, 13, 852394.
- [50] Perez, S. (2020). TechCrunch is part of the Yahoo family of brands. <https://techcrunch.com/2020/11/23/google-brings-the-mandalorian-to-ar-in-its-new-app/>
- [51] PR Newswire. (2019). Sony Pictures Digital Marketing Raises The Stakes On Augmented Reality With 'Jumanji: The Next Level' Campaign. [markets.businessinsider.com. https://markets.businessinsider.com/news/stocks/sony-pictures-digital-marketing-raises-the-stakes-on-augmented-reality-with-jumanji-the-next-level-campaign-1028760092](https://markets.businessinsider.com/news/stocks/sony-pictures-digital-marketing-raises-the-stakes-on-augmented-reality-with-jumanji-the-next-level-campaign-1028760092)
- [52] Rauschnabel, P. A., Babin, B. J., Dieck, M. C. T., Krey, N., & Jung, T. (2022). What is augmented reality marketing? Its definition, complexity, and future. *Journal of Business Research*, 142, 1140–1150.
- [53] Raymundo, L. (2018). Ready Player One demonstrates there's such thing as too much Marketing. *Medium*. <https://leonardoraymundo.medium.com/ready-player-one-demonstrates-theres-such-thing-as-too-much-marketing-7fabe14a09b6>

- [54] Robertson, A. (2018). Facebook is putting AR experiences on Ready Player One posters. *The Verge*. <https://www.theverge.com/2018/4/5/17203502/facebook-augmented-reality-target-tracking-ready-player-one-wrinkle-in-time-posters>
- [55] Saha, D. (2023). 16 Ultimate Film Promotion Strategies for your film. Miracalize Media. <https://miracalize.com/film-promotion-strategies/>
- [56] Shaul, B. (2023). Barbie Turns the World Pink with AR Snapchat Lenses. *adweek.com*. <https://www.adweek.com/brand-marketing/barbie-turns-the-world-pink-with-ar-snapchat-lenses/>
- [57] The DX Team. (2023). DX Blog | Enhancing the Cinema Experience for Gen Z: 8 Experts share key marketing insights. *DX Powering Great Experiences*. <https://www.dx.tech/blog/enhancing-the-cinema-experience-for-gen-z-8-experts-share-key-marketing-insights>
- [58] Thilk, C. (2018). *The Hollywood Reporter*. *The Hollywood Reporter*. <https://www.hollywoodreporter.com/movies/movie-news/jurassic-world-fallen-kingdom-marketing-leans-top-dino-rampage-1121792/>
- [59] TikTok. (2023). #JumanjiChallenge | TIKTOK. Retrieved September 28, 2023, from <https://www.tiktok.com/tag/JumanjiChallenge>
- [60] Ulker-Demirel, E., Akyol, A., & Şimşek, G. G. (2018). Marketing and consumption of art products: the movie industry. *Arts and the Market*, 8(1), 80–98.
- [61] Wikipedia contributors. (2023). Roh (film). *Wikipedia*. [https://en.wikipedia.org/wiki/Roh_\(film\)](https://en.wikipedia.org/wiki/Roh_(film))
- [62] Winkelman, S. (2018). Facebook brings AR features to ‘Ready Player One,’ ‘A Wrinkle in Time’ posters. *Digital Trends*. <https://www.digitaltrends.com/mobile/facebook-camera-ar-features-movie-posters/>
- [63] Yang, S., Carlson, J. R., and Chen, S. (2020). How augmented reality affects advertising effectiveness: the mediating effects of curiosity and attention toward the ad. *J. Retail. Consum. Serv.* 54:102020.
- [64] Zeng, J., Xing, Y., & Jin, C. (2023). The impact of VR/AR-Based Consumers’ brand experience on Consumer–Brand Relationships. *Sustainability*, 15(9), 7278.

Acknowledgement

We would like to convey our heartfelt gratitude and appreciation to our family and friends for their help and encouragement throughout this study process. Their encouragement, drive, and

understanding have been crucial in keeping us motivated and on track. We would also like to acknowledge everyone who helped us finish this study in various ways. Your assistance and encouragement have been tremendously appreciated.

Funding Information

The author received no funding from any party for the research and publication of this article.

Authors' Bio

Rosnani Abdul Rahman is a Lecturer and Assistant Programme Coordinator for the Bachelor's degree in Advertising Design at the Faculty of Creative Multimedia, Multimedia University (MMU). She also works as a front-end developer, UI/UX designer, graphic designer, and multimedia designer on a freelance and consulting basis. She graduated from Multimedia University with a degree in Media Innovation and is now pursuing a Master's degree in Visual Communication and New Media at Universiti Teknologi MARA. Prior to entering academia, she worked in the creative, publishing and broadcast industries for organisations such as Kumpulan Media Karangraf and Media Prima since 2009.

Zainuddin Ibrahim (PhD) is an Associate Professor at Universiti Teknologi MARA (UiTM). He is currently the Head of Delivery and Learning Development, at the Centre for Innovative Delivery and Learning Development, UiTM.

Mohd Ikhwan Mohd Marzuki is a Lecturer and Programme Coordinator for Diploma in 3D Modelling and Animation at the Faculty of Creative Multimedia, Multimedia University (MMU). He is currently pursuing a Master's degree in Visual Communication and New Media at Universiti Teknologi MARA (UiTM).

Nur Sarifah Hasan is a part-time lecturer and currently pursuing a Master's degree in Visual Communication and New Media at Universiti Teknologi MARA (UiTM).

Ahmad Syafiq Zulfadzli is a Lecturer at Management and Science University (MSU). He is currently pursuing a Master's degree in Visual Communication and New Media at Universiti Teknologi MARA (UiTM).

Zakiah Zainal is a Lecturer and Instructional Designer at Kuala Lumpur Metropolitan University College (KLMUC). She is currently pursuing a Master's degree in Visual Communication and New Media at Universiti Teknologi MARA (UiTM).