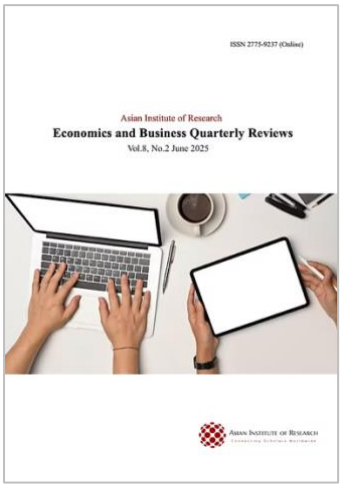


# Economics and Business Quarterly Reviews

**Seay, E. L., Shedrick, R., Ogilvie, D., Goodnough, W., Walters, S., Miles, D. A., Garcia, J. R., Olagundoye, E., & Tymann, N. (2025). Movie Sequel Marketing and Predictive Analytics: An Empirical Study on Movie Sequel Marketing Analytics on Marvel's, *Wakanda Forever* with Moviegoers. *Economics and Business Quarterly Reviews*, 8(2), 67-83.**

ISSN 2775-9237

DOI: 10.31014/aior.1992.08.02.663

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Published by:
The Asian Institute of Research



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The Asian Institute of Research
Economics and Business Quarterly Reviews
Vol.8, No.2, 2025: 67-83
ISSN 2775-9237

DOI: 10.31014/aior.1992.08.02.663

# Movie Sequel Marketing and Predictive Analytics: An Empirical Study on Movie Sequel Marketing Analytics on Marvel's, *Wakanda Forever* with Moviegoers

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**Abstract**
The purpose of this study was to examine the Marvel movie, *Wakanda Forever*, the sequel to the *Black Panther* movie. We investigated how movie sequels are marketed to consumers and marketing's influence on movie ticket sales. This study is a continuation of the researchers' prior research on movie marketing and a model predicting box office revenue and ticket sales. That study examined box office receipts and trends in movies and the box office of successful films. The problem identified as a basis for this study was to dissect the strategy and tactics of marketing movie sequels and their influence on ticket sales. The overall objective of this research is threefold. The first objective of this study was to investigate trends and patterns of movie marketing of sequels with *Wakanda Forever*. The second objective was to examine what marketing media are a major influence on general and ethnic moviegoers. The last objective was to examine what marketing efforts are more effective in marketing movies as well as the failure of some marketing media. This study used a quantitative research design. The study sample ($N$ = 322) was taken across the country. The researchers used four statistical test designs: (a) descriptive analyses; (b) independent sample t-Test (gender), (c) logistic regression; and (d) regression path analysis (structural equation modeling). The results of this study revealed three key findings. First, the majority of the participants saw the first movie (*Black Panther*) but were less influenced to see the sequel, *Wakanda Forever*. Second, there were six strong predictor variables that influenced the participants with broadcast media ads to see the movie, *Wakanda Forever.* Lastly, there was a difference in the characters in the movie that resonated with the audience. As a result of the statistical analysis, we discovered a 3-factor solution.

**Keywords:** Movies, Movie Sequels, Moviegoers, Customer Behavior, Retailer Behavior, Linear Regression, Logistic Regression, Regression Path Analysis, Structural Equation Modeling (SEM)

## 1. Introduction

The film industry has evolved into a multi-billion-dollar business, where marketing plays a crucial role in determining the commercial success of movies. With the rise of franchise films and sequels, studios have adopted sophisticated marketing strategies to maximize audience engagement and box office revenue. Marvel Studios, a leader in franchise filmmaking, has consistently demonstrated success in sequel marketing, with *Wakanda Forever* serving as a prime example. This study seeks to explore the marketing strategies employed for *Wakanda Forever*, their effectiveness in reaching audiences, and how predictive analytics can be leveraged to forecast box office performance. Furthermore, our study examines how marketing efforts specifically target and influence Black consumers, an essential demographic for the success of films like *Wakanda Forever*.

## 2. Background of Study

Movie marketing has transformed significantly with the advent of digital platforms, social media, and data-driven advertising. The ability to predict consumer behavior through analytics has given studios a competitive edge in refining their promotional strategies. Marvel Studios has developed a unique marketing approach that capitalizes on cultural narratives, audience anticipation, and digital engagement. The predecessor to *Wakanda Forever*, *Black Panther*, was a cultural phenomenon, breaking records and highlighting the effectiveness of targeted marketing, particularly within the Black community. Given this context, *Wakanda Forever* presents an opportunity to analyze how sequel marketing strategies are adapted based on past successes and emerging market trends.

Sequel marketing is particularly interesting because it builds on existing brand equity while facing challenges such as audience expectations, franchise fatigue, and market saturation. Understanding the effectiveness of various marketing channels, from traditional media to digital campaigns, can provide valuable insights into the broader impact of sequel marketing. Additionally, predictive analytics offers a quantitative approach to forecasting box office revenue, enabling researchers to determine the correlation between marketing investments and financial performance.

## 3. Literature Review

### *3.1. Marketing Strategies for Movie Sequels*

Research on movie marketing highlights the importance of strategic planning and targeted advertising to maximize audience reach and revenue generation (Hennig-Thurau, Houston, & Sridhar, 2022). Studies suggest that sequels benefit from brand recognition, reducing the need for extensive introductory marketing (Eliashberg et al., 2021). However, the challenge lies in maintaining audience excitement and differentiating the sequel from its predecessor (Basuroy, Chatterjee, & Amp, 2023; Ravid, 2023). Recent research suggests that digital-first marketing campaigns significantly enhance audience engagement for movie sequels (Smith & Jones, 2024).

### *3.2. The Role of Predictive Analytics in Movie Marketing*

Predictive analytics in movie marketing has gained traction as studios seek to enhance decision-making processes. Regression models, social media sentiment analysis, and machine learning techniques have been employed to predict box office outcomes based on marketing variables (Dellarocas, Awad, & Zhang, 2023). Studies indicate that factors such as trailer views, pre-release buzz, and audience demographics significantly impact a movie's financial success (Liu & Thompson, 2024). Machine learning applications in predictive modeling have expanded, allowing studios to fine-tune marketing campaigns in real time (Gonzalez et al., 2025).

The influence of Black consumers in the entertainment industry has been well-documented, particularly in the success of culturally significant films (Harrison, 2021). *Black Panther* demonstrated how representation and cultural narratives could drive engagement and box office success (Brooks & Martin, 2022). Marketing strategies that resonate with Black audiences, such as community engagement, influencer partnerships, and culturally relevant messaging, have been shown to enhance a film's appeal (Johnson & Williams, 2023). The evolution of

streaming platforms and direct-to-consumer marketing has also provided new opportunities for targeting diverse audiences (Clark, 2024).

### *3.3. Effectiveness of Marketing Channels*

The effectiveness of marketing channels varies based on the target demographic and film genre. Studies have shown that digital marketing, including social media campaigns and influencer endorsements, has become a dominant force in film promotion (Mangold & Faulds, 2023). Traditional media, such as television and print, still play a role but often serve as supplementary rather than primary marketing tools (Karray, 2022). Understanding which channels yield the highest return on investment is crucial for optimizing marketing budgets and campaign strategies. Recent research indicates that TikTok and short-form video content have outperformed traditional digital ads in engagement and ticket sales for movie sequels (Davis,2025).

The existing literature underscores the critical role of marketing in the success of movie sequels. While past studies have explored various aspects of film marketing, limited research has focused on the intersection of sequel marketing, predictive analytics, and ethnic consumer behavior. This study aims to bridge this gap by examining *Wakanda Forever*'s marketing approach, its impact on Black consumers, and the predictive factors influencing box office revenue. By leveraging quantitative analysis and empirical data, this research provides insights into the evolving landscape of movie marketing and its implications for future sequel releases.

## 4. Conceptual Model

### *4.1. Conceptual Framework and Model*

A conceptual framework was developed that describes movie advertising and public relations factors within the movie consumer behavior as a construct. This conceptual framework is related to *the Integrated Marketing Communications Model* (IMC). It was based on the model from Integrated Marketing Communications (IMC) (Kotler & Kellor, 2005). IMC is a process of unifying all the communication channels and messages to deliver a consistent marketing message across multiple channels to create a consistent brand identity. An example of an IMC could be a company that produces and sells furniture. The company can use TV, radio, social media posts, website content, email campaigns, and direct mail to promote its product in one integrated marketing strategy. All of these channels should have consistent messaging about the product while still offering unique value to each specific channel (*ibid*).

The following conceptual model is presented with the proposed factors and variables for the study. The model proposes that the variables that are the major aspects of this framework are: (a) movie advertising, (b) movie sales promotion, (c) movie events and experience, (d) movie public relations, (e) movie online/ social media, (f) movie mobile marketing, (g) movie direct marketing, and (h) movie personal selling (see Figure 1). This study provides a conceptual framework to link eight marketing advertising constructs that significantly impact moviegoer consumer behavior with the Marvel movie, *Wakanda Forever.* The first-generation researcher-developed instrument created for this study exhibited reliability and validity within the participant population of moviegoers and consumers. Furthermore, the researchers conducted subsequent statistical tests of the data obtained as part of the study that yielded statistically significant trends in the moviegoer population. See Figure 1.

Movie Advertising and Public Relations Factors

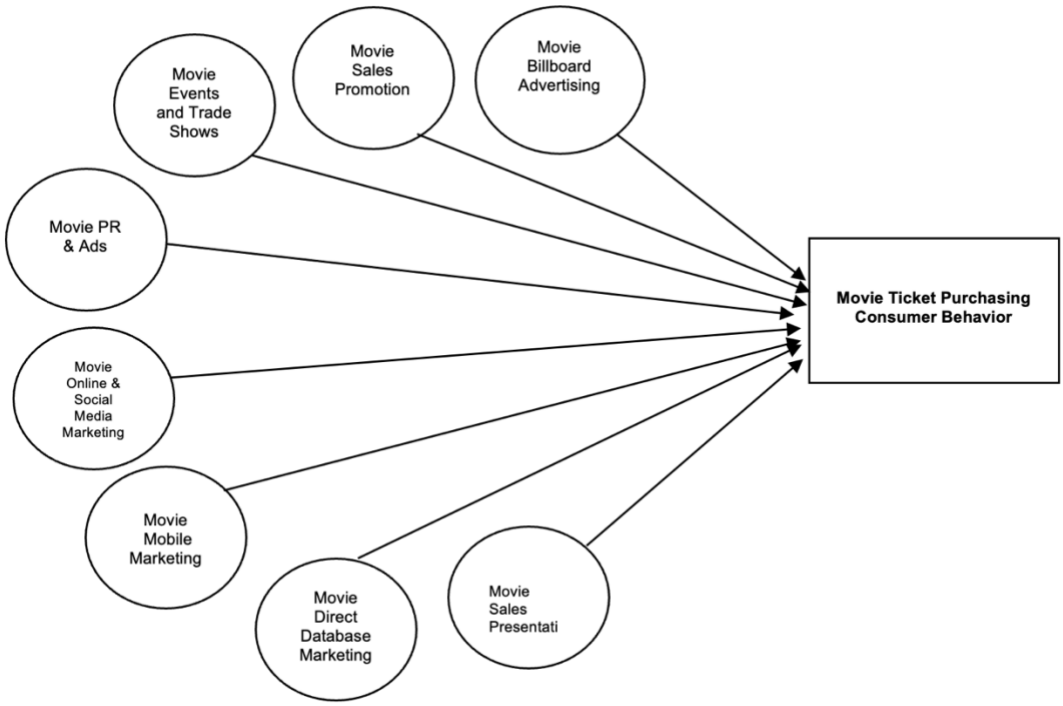


Figure 1: Conceptual Model of the Study: Customer Behavior and Retailer Behavior Analytics

## 5. Methods

### *5.1. Methods*

The target population for this study consisted of American moviegoers who had seen the Marvel movie, *Wakanda Forever*, during 2022 to 2023. The unit of analysis was the moviegoers. The study was entirely online via *Survey Monkey.com*. The researchers used three databases for collection of the data online. The final realized sample included a total of 359 questionnaires, representing a 98.0% response rate. All 359 questionnaires were analyzed. We acquired a total of 332 usable surveys from the sample. All participants came from a general demographic sample of moviegoers (movie consumers) nationwide, which was a large enough sample for the use of structural equation modelling based on the recommendations by Tabachnick and Fidell (1996), and Kline (1998). The participants provided a reasonable representation profile of American moviegoers who saw *Wakanda Forever*, in theaters from 2023 to 2024.

### *5.2. Survey Instrument*

The survey instrument is a first generation, research designed instrument specifically developed for this study. The researchers developed a comprehensive, multidimensional instrument for measuring moviegoer consumer behavior with movie ticket purchases and movie attendance frequency.

The researchers used an established theoretical foundation and conceptualization with Integrated Marketing Communication (IMC) constructs. Additionally, the researchers refined the instrument (and scales), and examined the evidence of reliability, content validity, criterion-related validity, convergent validity, and lastly discriminant validity.

The instrument was a 33-item survey with three subscales: (a) sociodemographics, which used seven demographic-type questions; (b) mediating questions, which used mediating variable questions based on movie attendance

frequency and ticket sales; and (c) subject matter centered questions, which used a seven-point Likert scale ranging from "Strongly Agree" to "Strongly Disagree."

For the two prior studies, the survey instrument was administered online on movie marketing and consumer behavior in the Fall of 2017 and 2018. In the two prior studies, a total of 1,655 people were invited to participate. Of those participants, 1,650 were recruited with the assistance of the *Qualtrics Corporation.* We had a 98% response rate. To conduct a path analysis, we used 15 survey questions to represent our variables.

*5.3. Sampling and Data Collection*

The respondents were a reasonably representative profile of all moviegoers in the United States. Replies were obtained from moviegoers from all states, starting between 2023 and 2024. The final sample ($N = 332$) of consisted of 169 men and 163 women. Of these participants, the ethnicity breakdown of the sample was quite interesting: 64.0 % of the sample was Caucasian and 14.0% was African American. These two ethnic groups represented the majority of the participants. Concerning marital status, 53.3% were single as opposed to 27.0% that were married. The largest age range of the participants was between the ages of 19 - 24. Concerning movie attendance frequency, we found that of the 332 participants, 35% of them went to the movies in the past three months, the largest number of the sample. Only 4.5% of the participants went to the movie theaters six or more times in the past three months.

Interestingly, when we compared the difference with the moviegoers seeing the *Wakanda Forever* sequel compared to the first *Black Panther* movie, we found a significant difference. In the sample, 63.0% of moviegoers saw *Black Panther*, however only 47.3% saw *Wakanda Forever*. That was a significant drop of moviegoers to see the sequel. We will show more of the demographics in a table below.

*5.4. Procedures*

The procedures of this study were regimented. The researchers used a quantitative research method, a survey. This was a first generation, researcher-developed survey. It was checked and measured for reliability and validity. They asked each participant to complete the survey, asking for the following sociodemographic information: age, gender, ethnicity, marital status, number of children, education background, movie theater attendance frequency, if they saw the first movie, if they saw the sequel, if they enjoyed the sequel as much as the original movie, and how the sequel portrayed women in terms of leadership.

To investigate the participants' perceptions or satisfactions of the sequel compared to the original film, we constructed several Likert-type rating scales. The scales ranged from 2-point Likert scales to a 10-point Likert scale. The first scale covered sociodemographic information from the participants. The second part of the survey used a 7-point scale labeled at seven choice points (1 = Strongly Agree, 4 = Neutral, and 7 = Strongly Disagree). Moreover, for the second part of the survey, the participants rated the extent to which each of 18 items indicated a source of satisfaction for them in viewing the sequel (e.g., "Strongly Agree"). Primarily with the second scale group, the items on each rating scale were chosen to reflect a representative range of those participants' satisfaction with the sequel.

Participants were recruited through a private market research firm. They assisted with identifying the target population for our study. An invitation to participate in an online survey investigating the participants seeing the sequel was sent via e-mail by the market research firm. The participants were informed in the survey link and email recruitment letter that their responses would be anonymous, and the survey would take approximately 10 to 20 minutes to complete.

The participants were asked to use the link in the e-mail if they were interested in participating. An informed consent notification was placed in the content of the email and in the content of the survey, to validate the online documentation of the informed consent requirement. Once consent was obtained, the participant was able to gain access to the full survey. No compensation was provided for participation in this study.

### *5.5. Statistical Design and Data Analysis*

The data for this study were examined with two software packages. The researchers used SPSS version 30.0 and AMOS version 30.0 for the statistical data analysis. In addition, unweighted least squares analyses were used to examine covariance matrices. The degree to which the data were best explained by each model was determined through confirmatory factor analysis. To calculate the descriptive statistics, scale coefficient alphas, and the item correlation matrix, we utilized SPSS 30.0. For measurement and hypothesis testing, we employed structural equation modeling analysis using AMOS 30.0. The multivariate statistical tests were all calculated with SPSS 30.0.

The following four statistical tests f were used: (a) descriptive statistics examine frequencies and distributions of the data collected; (b) an independent sample t-test was used to analyze mean and standard deviation differences between the gender preferences of the moviegoers; (c) a linear regression to examine predictive analytics behavior with moviegoers; (d) a principal component analysis for the exploratory factor analysis; and (e) a confirmatory factory analysis to confirm the factor structure of the exploratory factory analysis.

For conducting analyses with the sociodemogrpahics, both a descriptive and crosstabulation statistical analyses were conducted along the following subgroup dimensions: age, gender, ethnicity, marital status, number of children, education background, movie theater attendance frequency, if they saw the first movie, if they saw the sequel, if they enjoyed the sequel as much as the original movie, and the issue of how the sequel portrayed women in terms of leadership. Lastly, the inferential statistical analyses conducted used principal-components factor analyses, with a varimax rotation performed on each of the 18 rating scales. The data from the resulting factors were used in the form of factor scale scores and were used for the factorial linear regression.

## 6. Results

### *6.1. Statistical Test 1: Descriptive Statistics - Sociodemographics*

The final sample ($N = 332$) was analyzed for the study. The descriptive data collected by the researchers included the nationwide data (city, state, region, divisions), gender, age, ethnicity, education, and marital status. The first variable, *gender*, consisted of 169 men and 163 women. The second variable, *age,* was examined. The largest age group was the 19 to 24 group, which represented 26.1 percent of the sample. The smallest age group was the 18 and younger group, which represented 1.2 percent of the sample.

The third variable, *ethnicity,* was examined. The largest ethnicity category was Caucasians, who represented 64.2 percent of the sample. The smallest group in the ethnicity category was Middle Easterners, representing 1.2 percent of the sample. The fourth variable, *education*, was examined. The largest category of education was a bachelor's degree, which represented 24.4 percent of the sample. The smallest category was t "some graduate school," which represented 1.8 percent of the sample. The last variable, *marital status*, was examined. The largest category of marital status was the *single* category, which represented 53.03 percent of the sample. The smallest category in the marital status category was the *separated* category, representing 2.1 percent of the sample (see Table 1).

Table 1: Descriptive Statistics – Sociodemographics Data

| **Sociodemographic Descriptive Data** | | |
|---|---|---|
| ***Gender*** (*n* =2) | ***n*** | **%** |
| Males | 169 | 50.9 |
| Females | 163 | 49.1 |
| ***Age*** (*n* =10) | ***n*** | **%** |
| 18 & younger | 4 | 1.2% |
| 19 to 24 | 80 | 26.1% |
| 25 to 29 | 47 | 14.21% |
| 30 to 35 | 31 | 9.3% |
| 36 to 39 | 30 | 9.0% |
| 40 to 45 | 39 | 11.7% |
| 46 to 49 | 17 | 5.1% |
| 50 to 55 | 28 | 8.4% |
| 56 to 59 | 9 | 2.7% |
| 60 & older | 47 | 14.2% |
| ***Ethnicity*** (*n* = 7) | ***n*** | **%** |
| African American (Black) | 46 | 13.9 |
| Asian (Pacific Islander) | 16 | 4.8 |
| Caucasian (White) | 213 | 64.2 |
| Hispanic (Latino) | 31 | 9.3 |
| Middle Eastern | 4 | 1.2 |
| Native American | 4 | 1.5 |
| Other Ethnicity | 17 | 5.1 |
| ***Education*** (*n* = 7) | ***n*** | **%** |
| Did not finish high school | 14 | 4.2 |
| High school diploma | 77 | 23.2 |
| Some college | 79 | 22.0 |
| Associates | 33 | 9.9 |
| Bachelor's degree | 81 | 24.4 |
| Some graduate school | 6 | 1.8 |
| Master's degree | 37 | 11.1 |
| ***Marital Status (****n* = 6) | ***n*** | **%** |
| Single | 177 | 53.3 |
| Married | 89 | 26.8 |
| Divorced | 39 | 11.7 |
| Separated | 7 | 2.1 |
| Widowed | 9 | 2.7 |
| Other | 11 | 3.3 |

(*N* = 322)

The descriptive data that was examined is: (a) if you have children; (b) movie attendance frequency; (c) Did you see the First *Black Panther* movie; and (d) Did you see the *Black Panther* Sequel, *Wakanda Forever*. There are two variables of interest. The variable, *Did you see the First "Black Panther" Movie* in the sample consisted of 63.3 percent of the sample stated "Yes" and 36.7 percent of the sample that stated, "No." The last variable, *Did you see the Black Panther Sequel, "Wakanda Forever" in* the sample consisted of 47.3 percent of the sample stated "Yes" and 52.7 percent of the sample that stated "No" (see Table 2).

Table 2: Descriptive Statistics – Sociodemographics Data

| **Sociodemographic Descriptive Data** | | |
|---|---|---|
| ***Children (****n* = 2) | ***n*** | **%** |
| Yes | 140 | 42.2 |
| No | 142 | 57.8 |
| ***Movie Attendance Frequency Past Three Months (****n* = 6) | ***n*** | **%** |
| One time | 116 | 34.9 |
| Two times | 73 | 22.0 |
| Three times | 67 | 20.2 |
| Four times | 44 | 13.3 |
| Five times | 17 | 5.1 |
| Six times or more | 15 | 4.5 |
| ***Did you see the First "Black Panther" Movie?*** (*n* = 2) | ***n*** | **%** |
| Yes | 210 | 63.3 |
| No | 122 | 36.7 |
| ***Did you see the Black Panther Sequel, "Wakanda Forever"?*** (*n* = 2) | ***n*** | **%** |
| Yes | 157 | 47.3 |
| No | 175 | 52.7 |

(*N* = 322)

*6.2. Statistical Test 2: Logistic Regression*

In our research, we wanted to conduct a statistical test to see if advertising variables had an influence on moviegoers seeing *Wakanda Forever*. A logistic regression using SPSS 30.0 was performed using the Integrated Marketing Communication (IMC) variables. Thirteen variables were used as predictors. Table 3 shows the logistic regression coefficients, Wald statistics, odds ratios, and 95% confidence intervals for odds ratios for each of the 13 predictors. According to the Wald criterion, we found five predictor variables that significantly predicted whether moviegoers had seen *Wakanda Forever* x2(1, $N = 332$) = 22.78, $p < .001$. The five variables that were the most significant predictors were: (a) V11D-Did you enjoy the *Wakanda Forever* sequel as much as the first *Black Panther* movie; (b) V12D-Are you a fan of the comic book superhero movie genre; (c) V14D-Generally, it is my opinion that movie sequels sometimes are not as good as the original; (d) V16D-Most often I purchase movie tickets online; and (e) V17D-What character did you most identify with *Wakanda Forever*. This indicates that we found only four statistically significant predictors determining the influence on moviegoers (see Table 3 below).

Table 3: Logistic Regression of Movie Goers Seeing *Wakanda Forever*

| Variables | *B* | *S.E.* | Wald | *df* | *p* | Exp(*B*) |
|---|---|---|---|---|---|---|
| V11D-Did you enjoy the Wakanda Forever sequel as much as the first *Black Panther* movie? | 0.517 | 0.111 | 21.808 | 1 | *0.000 | 1.677 |
| V12D-Are you a fan of the comic book superhero movie genre? | 0.262 | 0.164 | 2.544 | 1 | 0.111 | 1.299 |
| V13D-Do you prefer to stream movies at home or see movies at the theater? | -0.115 | 0.154 | 0.559 | 1 | 0.455 | 0.891 |
| V14D-Generally, it is my opinion that movie sequels sometimes are not as good as the original | 0.264 | 0.101 | 6.751 | 1 | *0.009 | 1.302 |
| V15D-Most often I purchase movie tickets at the theater | 0.043 | 0.079 | 0.293 | 1 | 0.588 | 1.044 |
| V16D-Most often I purchase movie tickets online | 0.250 | 0.076 | 10.911 | 1 | *0.001 | 1.284 |
| V17D-What character did you most identify with "Wakanda Forever" | 0.570 | 0.115 | 24.592 | 1 | *0.000 | 1.768 |

***$p < .001$

In our second logistic regression analysis, we wanted to conduct a statistical test examining if advertising variables had an influence on moviegoers seeing the movie *Wakanda Forever*. A logistic regression was performed using the Integrated Marketing Communication (IMC) variables using SPSS 30.0. Thirteen variables were used as predictors.

Table 4 shows the logistic regression coefficients, Wald statistics, odds ratios, and 95% confidence intervals for odds ratios for each of the 13 predictors. According to the Wald criterion, only two predictor variables dealing with moviegoers significantly predicted whether they had seen *Wakanda Forever* $x2(1, N = 332) = 22.78, p < .001$. The two variables with the most significance with the predictors on moviegoers seeing the movie were: (a) V29-*YouTube* (video) trailers for *Wakanda Forever*; and (b) V24-*Merchandising Movie Merchandising*. This indicates that only three ads were statistically significant as predictors in determining an influence on moviegoers that saw the movie, *Wakanda Forever* (see Table 4 below).

Table 4: Logistic Regression of Movie Goers Seeing the sequel, *Wakanda Forever*

| Variables | *B* | *S.E.* | Wald | *df* | *p* | Exp(B) |
|---|---|---|---|---|---|---|
| *V19-Broadcast media ads for 'Wakanda Forever' played a major influence | 0.163 | 0.123 | 1.761 | 1 | 0.185 | 1.177 |
| *V20-Billboard ads (e.g. regular, digital) | 0.080 | 0.127 | 0.393 | 1 | 0.531 | 1.083 |
| *V21-Movie promotions ads (e.g. contests, sweepstakes) | -0.201 | 0.124 | 2.632 | 1 | 0.105 | 0.818 |
| *V22-The in-theaters movie trailer ads for | 0.013 | 0.116 | 0.014 | 1 | 0.907 | 1.014 |
| *V23-The sneak preview events for Wakanda Forever | 0.156 | 0.125 | 1.559 | 1 | 0.212 | 1.169 |
| *V24-Merchandising (e.g. movie licensed toys, t-shirts, books, etc.) | -0.312 | 0.124 | 6.329 | 1 | *0.012 | 0.732 |
| *V25-Special Screening Party for Wakanda Forever at the theater | 0.009 | 0.088 | 0.011 | 1 | 0.918 | 1.009 |
| *V26-African culture and imagery in the "Wakanda Forever" sequel played a major influence | 0.271 | 0.113 | 5.743 | 1 | *0.017 | 1.312 |
| *V27-African culture and imagery in "Wakanda Forever" sequel played a major influence | -0.085 | 0.135 | 0.398 | 1 | 0.528 | 0.918 |
| *V28-PR activities (e.g., TV appearances) for "Wakanda Forever" sequel played a major influence | -0.018 | 0.139 | 0.016 | 1 | 0.899 | 0.983 |
| *V29-YouTube (video) trailers for Wakanda Forever sequel played a major influence (social media) | 0.398 | 0.099 | 16.307 | 1 | *0.000 | 1.489 |
| *V30-Facebook ads for Wakanda Forever sequel played a major influence (social media) | 0.162 | 0.112 | 2.099 | 1 | 0.147 | 1.175 |

***$p < .001$

In our last logistic regression research, we wanted to conduct a statistical test to examine if movie goers to saw the prequel, *Black Panther* and if it was a predictor in seeing the sequel, *Wakanda Forever.* Again, the third logistic regression analysis was performed using the Integrated Marketing Communication (IMC) variables. Again, the 13 IMC ad variables were used as predictors. Table 5 shows the logistic regression coefficients, Wald statistics, odds ratios, and 95% confidence intervals for odds ratios for each of the 13 predictors. According to the Wald criterion, there was only one predictor variable that significantly predicted whether they had seen the movie, *Wakanda Forever* x2 ($N$ = 332) = 22.78, $p < .001$, V29-*YouTube* (video) trailers for *Wakanda Forever*. This indicates, only one statistically significant predictor determined the influence on moviegoers going to see *Wakanda Forever* (see Table 5 below).

Table 5: Logistic Regression of Movie Goers To See If the Prequel, *Black Panther* Was A Predictor in Seeing the Sequel, *Wakanda Forever*

| Variables | *B* | *S.E.* | Wald | *df* | *Sig.* | Exp(B) |
|---|---|---|---|---|---|---|
| *V19-Broadcast media ads for 'Wakanda Forever' played a major influence | 0.018 | 0.127 | 0.019 | 1 | 0.890 | 1.018 |
| *V20-Billboard ads (e.g. regular, digital) | -0.120 | 0.133 | 0.814 | 1 | 0.367 | 0.887 |
| *V21-Movie promotions ads (e.g. contests, sweepstakes) | -0.182 | 0.132 | 1.896 | 1 | 0.169 | 0.834 |
| *V22-The in-theaters movie trailer ads for | 0.096 | 0.125 | 0.593 | 1 | 0.441 | 1.101 |
| *V23-The sneak preview events for Wakanda Forever | 0.235 | 0.131 | 3.201 | 1 | 0.074 | 1.265 |
| *V24-Merchandising (e.g. movie licensed toys, t-shirts, books, etc.) | -0.177 | 0.130 | 1.871 | 1 | 0.171 | 0.838 |
| *V25-Special Screening Party for Wakanda Forever at the theater | -0.038 | 0.093 | 0.169 | 1 | 0.681 | 0.962 |
| *V26-African culture and imagery in the "Wakanda Forever" sequel played a major influence | 0.224 | 0.118 | 3.610 | 1 | 0.057 | 1.252 |
| *V27-African culture and imagery in "Wakanda Forever" sequel played a major influence | 0.111 | 0.142 | 0.609 | 1 | 0.435 | 1.117 |
| *V28-PR activities (e.g., TV appearances) for "Wakanda Forever" sequel played a major influence | 0.014 | 0.143 | 0.010 | 1 | 0.920 | 1.014 |
| *V29-YouTube (video) trailers for Wakanda Forever sequel played a major influence (social media) | 0.361 | 0.102 | 12.644 | 1 | *0.000 | 1.435 |
| *V30-Facebook ads for Wakanda Forever sequel played a major influence (social media) | 0.048 | 0.116 | 0.170 | 1 | 0.680 | 1.049 |

***$p < .001$

*6.3. Regression Model and Path Analysis*

The path model shows the link between marketing ads and moviegoer behavior with movie ticket purchases can be seen in Fig. 2. The pathways (arrows) from in the model represent the hypothesized effects. The variables on the left of the model are endogenous variables (movie advertisements). The exogenous variables (purchasing behavior) on the right of the model are influenced by the endogenous variables. Factor 1 path coefficients represent the relationships in the model between the movie advertisements and movie purchases. Based on the results of the model, we could not find a strong relationship between the influence of movie ads and moviegoer purchasing behavior.

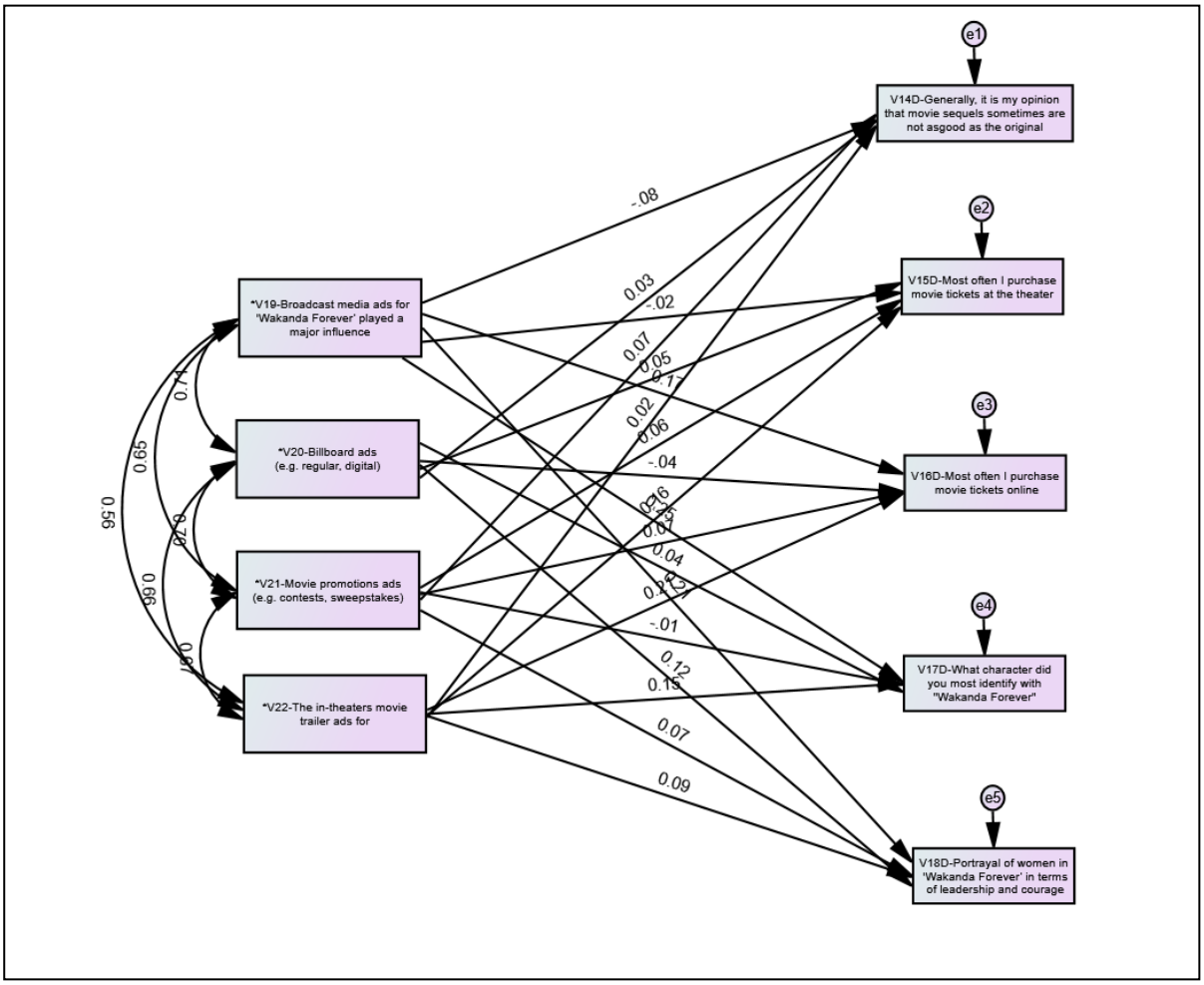


Figure 2: The Factorial Hierarchical Regression Path Model- Factor 1: *Wakanda Forever*

Second, the path model for Factor 2 shows the link between marketing ads and moviegoer behavior with movie ticket purchases can be seen in Fig. 3. Again, based on the results of the model, we could not find any strong relationships between the influence of the movie ads on moviegoer purchasing behavior.

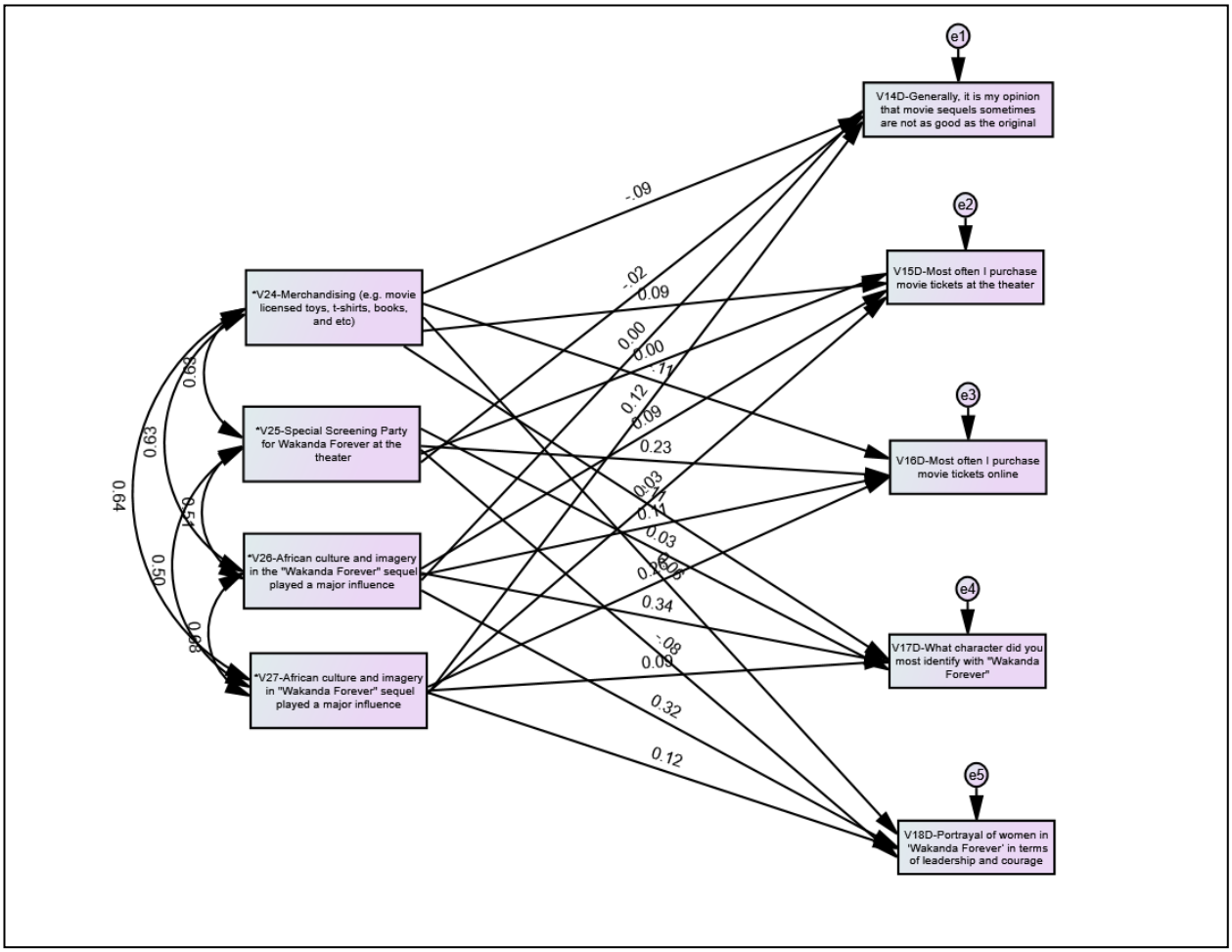


Figure 3: The Factorial Hierarchical Regression Path Model- Factor 2: *Wakanda Forever*

Lastly, the path model for Factor 3 shows the link between marketing ads and moviegoer behavior with movie ticket purchases (see Fig. 4). Again, based on the results of the model, we could not find any strong relationships between the influence of movie ads on moviegoer purchasing behavior.

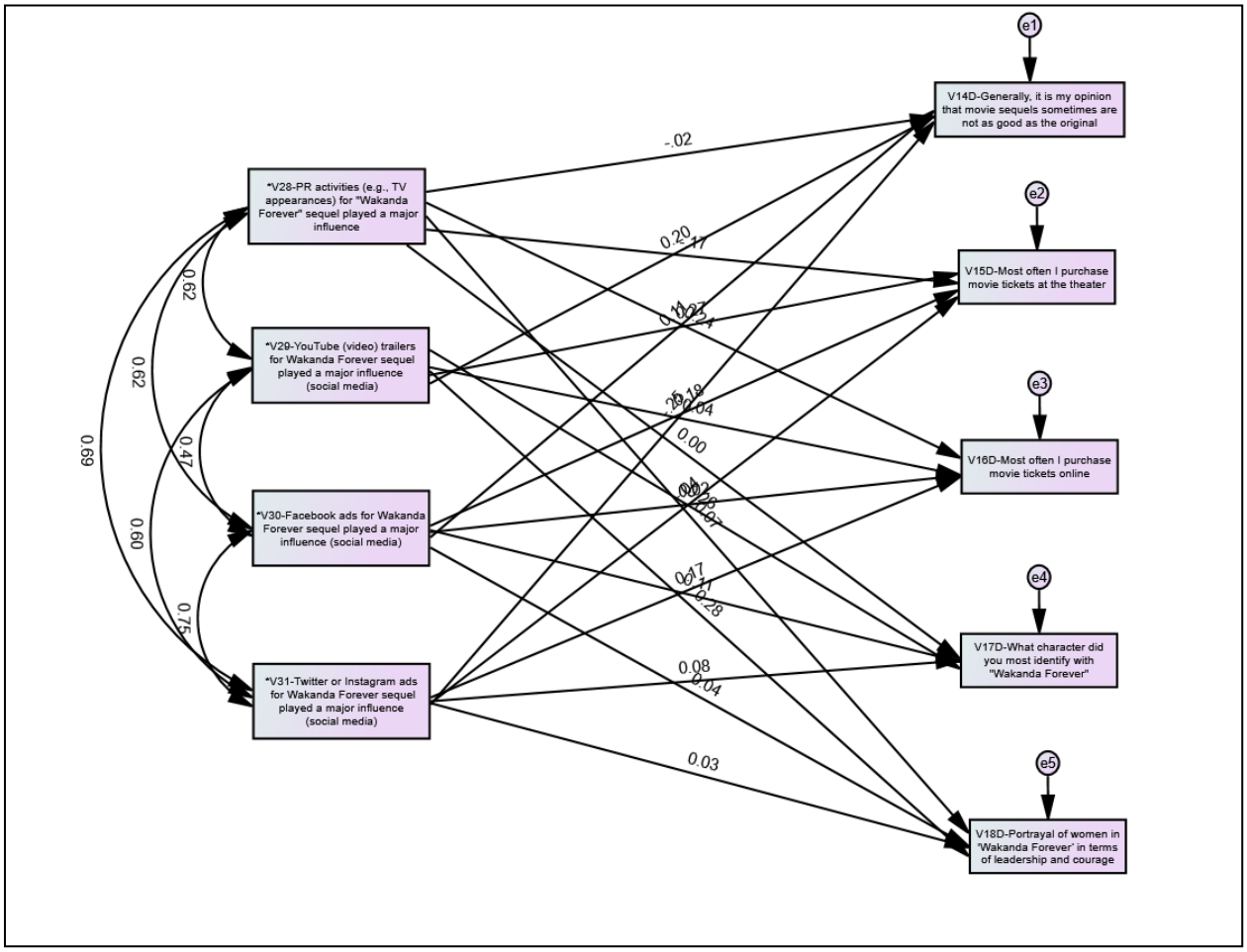


Figure 4: The Factorial Hierarchical Path Regression Model- Factor 3: *Wakanda Forever*

*6.4. Regression Path Model on Moviegoer Behavior on Ticket Purchases*

Regression path analysis using AMOS estimates the path coefficients on a set of linear structural equations. The structural equations comprise of independent variables (*cause*) and dependent variables (*effect*). A single regression equation model and path regression model can be analyzed by path analysis of AMOS. In this model, the outputs from these path regression lines, and bivariate regression analysis represent the structural equations and the estimated relationships between independent variables and dependent variables.

The regression path analysis output shows four different inputs from structural equations and reduced form equations. The results of the model show some significant relationships. First, the results in the model indicated that both F1-*Traditional Ads* and F3-*Special PR Ads* had significantly affected *Consumer Movie Behavior* 1 and *Consumer Movie Behavior 2*. Second, the covariance between the three ad factors s that there are strong covariances between the three ad factors, F1-*Traditional Ads,* F2-*Social Media Ads*, and F3-*Special PR Ads.* Third, most notably, the factor, F2-*Social Media Ads*, had a moderate effect on *Consumer Movie Behavior* 1 and had an inverse effect on *Consumer Movie Behavior 2*. Interestingly, the factor, F2-*Social Media Ads*, had an inverse effect with both *Consumer Movie Behavior* 1 and *Consumer Movie Behavior 2*.

Lastly, demographics showed moderate and inverse relationships with the two output variables, *Consumer Movie Behavior* 1 and *Consumer Movie Behavior 2*. AMOS estimates all of the structural coefficients simultaneously, but not separately. The AMOS output provided us with two different equations: structural equations and reduced form equations. The structural equations in the model consist of all the equations excluding any mediating

variables. The reduced form equations show only the effects of the independent variables (exogenous) on the dependent variables (endogenous). See Figure 5.

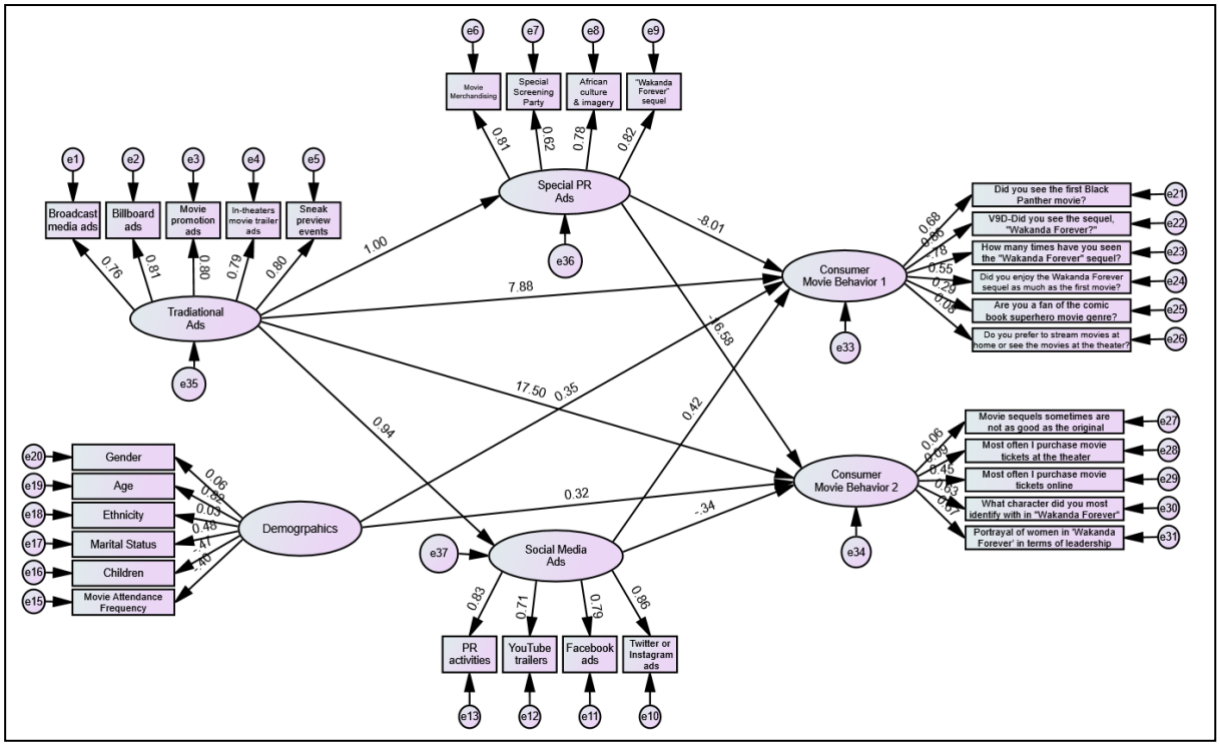


Figure 5: The Regression Path Model – On the Movie, *Wakanda Forever*

**7. Discussion**

The purpose of this study was to investigate how movie sequels are marketed to consumers and marketing's influence on sequel movie ticket sales. This nationwide study examined the Marvel movie, *Wakanda Forever*, the sequel to the *Black Panther* movie, which was shown in the United States. This study examined 15 Integrated Marketing Communication (IMC) variables' influence on moviegoers to see if they saw a movie sequel. There were five key findings from this study.

First, our initial findings from the first logistic regression, found there were five strong predictors to seeing *Wakanda Forever*. The five variables that indicated the most significance with the predictors on moviegoers seeing the movie were: (a) V12D-*Are you a fan of the comic book superhero movie genre*; (b) V14D-*Generally, it is my opinion that movie sequels sometimes are not as good as the original*; (c) V16D-*Most often I purchase movie tickets online*; and (d) V17D-*What character did you most identify with Wakanda Forever.*

Second, for the first factorial logistic regression, we found the two variables that indicated the most significance with the predictors on moviegoers seeing the movie were: (a) V29-*YouTube* (video) trailers for *Wakanda Forever*; and (b) V24-*Merchandising Movie Merchandising*. We could not find any other predictor variables that were an influence on moviegoers going to see *Wakanda Forever*. Moreover, we only found three statistically significant ads as predictors in determining ticket sales of moviegoers. For the second factorial logistic regression, we found only one variable to be significant with moviegoers seeing the movie: (a) V29-*YouTube* (video) trailers for *Wakanda Forever*. This finding indicates that YouTube trailers strongly influence moviegoers going to see *Wakanda Forever.*

Third, we conducted three factorial regression path analyses. We measured IMC ads individually to see their influence on movie ticket sales. Based on the findings, IMC ads were not a significant influence on online and movie theater ticket sales.

Lastly, we conducted an overall regression path model on moviegoer behavior on ticket purchases. The findings indicated that two factors, F1-*Traditional Ads* and F3-*Special PR Ads* significantly affected *Consumer Movie Behavior* 1 and *Consumer Movie Behavior 2*. Second, we found that there are strong covariances between the three ad factors, F1-*Traditional Ads,* F2-*Social Media Ads*, and F3-*Special PR Ads.* We found that F2-*Social Media Ads* had a moderate effect on *Consumer Movie Behavior* 1 and an inverse effect on *Consumer Movie Behavior 2*. We also found that F2-*Social Media Ads* had an inverse effect on both *Consumer Movie Behavior* 1 and *Consumer Movie Behavior 2*. Lastly, the findings of the model indicated that demographics had only a moderate and inverse relationship with the two output variables, *Consumer Movie Behavior* 1 and *Consumer Movie Behavior 2*. This tells us that demographics do not affect decisions with movie ticket purchases.

## 8. Conclusions

This study explored advertising influences on the moviegoers of Marvel's *Wakanda Forever*. The aim of this was to explore advertising modes and their influence on consumer behavior of moviegoers when attending a sequel to a blockbuster movie. This study is one of the few studies to examine marketing's influence on moviegoer behavior. While several of the prior studies emphasized the multidimensional nature of consumer behavior in terms of consumer satisfaction, consumer trust, and consumer loyalty, our research sought to examine how movie advertising channels influence moviegoers to see *Wakanda Forever*. From a theory development perspective, finding eight distinct integrated marketing communications dimensions (advertising, sales promotion, promotions, direct marketing, & etc.) affirms their influence on ethnic moviegoers.

Based on our findings, there were four main conclusions from this study that can be applied to movie marketing strategy. First, there were five strong variables that predicted whether Broadcast media ads were major influences on purchasing tickets to see *Wakanda Forever*. The variables in descending order of influence were: (a) if the participant saw the first *Black Panther* movie, (b) whether the participant was a fan of the comic book superhero genre, (c) if the IMC advertisements were an influence as a predictor if moviegoers thought the women in *Wakanda Forever* were portrayed as courageous leaders, (d) if the participant most often purchases movie tickets online, and (e) if the participant most often purchases movie tickets at the theater.

Second, there were four strong predictor variables that influenced the participants with Billboard media ads with the Movie. The variables in descending order of influence were: (a) if the participant saw the first *Black Panther* movie, (b) if the participant thought that the women in *Wakanda Forever* were portrayed as courageous leaders, (c) if the participant most often purchases movie tickets online, and (d) if the participant most often purchases movie tickets at the theater.

Third, there were only three strong predictor variables that influenced the participants with *In-Theater Movie Trailer ads*. The variables in descending order of influence were: (a) if the participant thought that the women in *Wakanda Forever* were portrayed as courageous leaders, (b) if the participant most often purchases movie tickets online, and (c) if the participant most often purchases movie tickets at the theater.

Finally, there were four key predictor variables that had an influence on the participants with Movie Merchandising (e.g. movie licensed toys, t-shirts, books, etc.). The variables in descending order of influence were: (a) if the participant did see the first *Black Panther* movie, (b) if the participant had children, (c) if the participant most often purchases movie tickets online, (d) if the participant most often purchases movie tickets at the theater, and (e) if the participant thought that the women in *Wakanda Forever* were portrayed as courageous leaders.

## 9. Implications

For future consumer behavior and choices there were two key findings that should have implications for movie marketers. First, ethnicity was not a strong predictor of whether a participant was influenced by various marketing media for *Wakanda Forever*. These findings were not reached when we conducted our previous study on

marketing strategies for the first, *Black Panther* movie (Miles, et al 2019), when we concluded that the findings suggested that Hollywood filmmakers should pay close attention to the ethnic consumer segments, their movie choices, and the ads that influence their consumer behavior.

However, we found that age was a strong predictor variable with some of the media ad influences, especially with participants between the ages of 19 - 29 years old. The most significant marketing media related to a participant's age were *YouTube* video trailer ads, in-theater movie trailer ads, TV commercials, and sneak preview events.

The findings also provide some key managerial implications. The fundamental premise of the finalized model was that movie theaters and retailers should understand comprehensively the critical factors necessary to maximize movie attendance with moviegoers. By recognizing and analyzing these diagnostic indicators and the conclusions drawn from this follow-up research study, movie theater retailers will be better able to formulate and implement their strategic plans.

## 10. Limitations and Future Research

### *10.1. Limitations*

Although the results presented in this study are useful in understanding the relationships between service quality and consumer behavioral factor items such as advertising, sales promotion, promotions, direct marketing, etc., there exist some limitations that need to be addressed.

First, the sampling frame was done entirely online. Offline moviegoers were missing for our study. This may lead to loss of generalizability, since offline consumers were not a part of the whole movie theater retail customers' population. Second, the sample of this study used appears to be more homogenous and yielded reliable data, it would be quite fruitful to include more diverse demographics and control variables, which could lead to more generalizable results. This would allow for possible segmentation groups in terms of consumers' advertising influences and preferences.

### *10.2. Future Research*

First, our data collection instrument proves to be reliable and valid and can be used by future studies to detect the relationships among these advertising constructs in an extended context. Future researchers could use this instrument to collect data on other blockbuster movie sequels. Second, future studies could use a more representative sample of offline ticket sales with moviegoers, which might lead to some interesting findings. Third, future studies could focus on more advertising dependent variables and development of a hypothesized model, (e.g. satisfaction, brand trust, and brand loyalty) as opposed to a singular focus on ticket sales and movie attendance. These variables would most likely be influenced by variables other than (advertising, sales promotion, promotions, direct marketing etc.), which were not the focus of this study. Finally, future research could further examine the influence on age, particularly on people between 19 - 29 years old, and whether YouTube ads continue to have the greatest impact on consumer behavior.

**Author Contributions:** All authors contributed to this research.

**Funding**: Not applicable.

**Conflict of Interest**: The authors declare no conflict of interest.

**Informed Consent Statement/Ethics Approval**: Not applicable.

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