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Program Evaluation of a Rich Media Implementation Program

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Review Committee

Dr. Irene Williams, Committee Chairperson, Doctor of Business Administration Faculty

Dr. Peter Anthony, Committee Member, Doctor of Business Administration Faculty

Dr. Brandon Simmons, University Reviewer, Doctor of Business Administration Faculty

Chief Academic Officer and Provost Sue Subocz, Ph.D.

Walden University 2019

Abstract

Program Evaluation of a Rich Media Implementation Program

by

Spencer W. Schultz

MBA, Walden University, 2013
BS, University of Wisconsin - Milwaukee, 2005

Doctoral Portfolio Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Business Administration

Walden University

December 2019

Abstract

Some U.S. e-commerce retail organizations use inadequate visual product presentation strategies that are limited to static product images and uninspiring textual descriptions. E-store customers have a stake because they are the beneficiary of the higher quality online shopping experience produced when rich media is used. Viewed through richness media theory, the purpose of this summative program evaluation was to evaluate the effectiveness of using rich media in e-store product listings. The evaluation was performed for a partner organization 1 year after the organization implemented a rich media implementation program in its e-store product listings. The results of the first repeated measures t tests indicated using rich media in e-store product listings increased annual sales revenue by 14.2% and total profit dollars by 8.8%; however, the results of a weekly profit comparison between 2016 and 2017 were not statistically significant, t(52) = .768, p = .446. The results of the second repeated measures t test indicated customer retention increased by 7.4% annually after implementing the rich media implementation program; however, the results of a weekly customer retention comparison between 2016 and 2017 were not statistically significant, t(52) = 2.002, p = .051. The results of the thematic analysis revealed one theme: maintaining rich media must be cost effective. The implications for positive social change include the potential for increasing consumer trust in convenient, e-retail shopping practices and reducing consumer dependency on inefficient shopping practices at traditional brick-and-mortar stores. Consumers with more detailed product information can make more informed purchase decisions, resulting in a reduced number of product returns and a higher quality online shopping experience.

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Dedication

I would like to dedicate this study to my family who supported me through the challenges associated with completing a research task of this magnitude.

Additionally, I would like to dedicate this study to my two young sons and show them that anything is possible if you put your mind to it.

Acknowledgments

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Section 1: Background and Context

E-commerce is increasing in popularity because of the conveniences and efficiencies it affords the consumer (Park, Kim, Funches, & Foxx, 2012). The growth of e-commerce is expected to continue, as the evolution of technical possibilities for consumers and vendors increases (Wieffer, 2014). Some of the evolving technical possibilities include new ways to display products to consumers using various multimedia in e-store product listings. Rotating images, product videos, and other rich media are starting to become popular options that vendors can use to draw in consumers. However, not all vendors are embracing these new technological options that can optimize their visual product-communication strategies (Feiereisen, Wong, & Broderick, 2013). Vendors need to embrace modern visual product-communication strategies to better convey the benefits of their products to consumers and to increase sales (Yoo & Kim, 2014). The purpose of this formative program evaluation was to determine if a rich media implementation program is cost effective.

Historical Background

According to the U.S. Department of Commerce (2016), U.S. retailers reported \$342 billion in e-commerce sales in 2015 and this number was expected to increase exponentially over the next decade. One of the reasons e-commerce is becoming more prevalent is because of the ease of use and the conveniences it affords consumers (Park, Kim, Funches, & Foxx, 2012). Because of this prevalence, e-retail has become a valuable sales channel that organizations can

leverage to reach more consumers. However, some organizations are struggling to effectively embrace e-retail practices and are failing to maximize their ability to attract and maintain customers (Feiereisen, Wong, & Broderick, 2013). Effective webstore design has been proven to be a critical aspect of attracting and maintaining consumer interest in an effort to increase sales (Song & Fatemeh, 2005). Feiereisen, Wong, and Broderick (2013) found that some organizations embracing e-retail were not using optimal visual product-communication strategies to convey the benefits of their products to consumers. Not using optimal visual product-communication strategies could have a significantly negative impact on sales. Yoo and Kim (2014) found that e-store product presentation directly affects online consumers' purchasing behaviors and sales. Because multimedia is the primary means of displaying and presenting products in an e-store, the focus of this evaluation was to determine if a rich media implementation program was cost effective.

Organizational Context

In this program evaluation, I targeted a for-profit retail organization that operates in numerous e-store vertical markets (personal communication, January 17, 2018). The organization's vision is to be the most convenient, diverse, and widely recognized e-commerce platform in the world. The organization intends to achieve its vision by reaching their mission statement goals, which include providing a customercentric shopping experience through convenience, quality product information, and reasonable pricing. The stakeholders of the

organization felt that a rich media implementation program could help them achieve these goals. The specific program goals of the stakeholders' rich media implementation program were to (a) increase e-store product sales using rich media, (b) cost-effectively create and maintain rich media to promote profitability, and (c) identify product categories/vertical markets in their portfolio that have financially responded well to the rich media implementation program. Key stakeholders included organizational leaders, e-store customers, and investors. The organization employed 121 employees and had been in operation for 11 years at the time of this study. The e-retail marketing manager was responsible for oversight and administration of the rich media implementation program.

Problem Statement

Using rich media (3-D images and videos) to display products in an e-store affects a consumer's decision to purchase a product (Yoo & Kim, 2014). Kumar and Tan (2015) found that by not using rich media in the form of a video in an e-store product listing resulted in a 14.5% decrease in its sales. Some organizations are using inadequate visual product presentation strategies that are limited to static product images and uninspiring textual descriptions, known as *lean media*, in their e-store product listings (Lim, Tan, Seo, Cyr, & Vries, 2013). To more effectively convey the benefits of a product to a consumer, an approach that has recently generated some traction, is the implementation of modern communication strategies using rich media in e-store product listings.

Several studies have been conducted to address product display effectiveness in e-stores. Walsh, Albrecht, Kunz, and Hofacker (2016) found that consumers with more access to relevant product data in e-store listings resulted in more purchases and a reduction in the number of consumer-related product returns. Likewise, Lu, Kim, Dou, and Kumar (2014) found that the utilization of 3-D images in product listings resulted in increased sales. However, Aljukhadar and Senecal (2015) found that too much extra unrelated content can hinder the objective of e-store product presentation. The leaders of an organization that recently implemented a rich media implementation program did not know the extent to which their rich media implementation program was meeting program objectives.

Purpose Statement

The purpose of this summative program evaluation was to determine if a rich media implementation program was meeting program objectives. The forprofit organization, which is located in Texas but sells products online across the entire United States, is dedicated to finding ways to generate more profit by using rich media to enhance the display of products in e-store product listings.

Participants included the e-retail marketing manager and organizational leadership. The implications for positive social change included the potential for increased consumer trust in e-retail as a result of consumers that are more informed and have experienced a higher quality online shopping experience.

Increased trust could contribute to the social behavioral shift from traditional brick-and-mortar retail shopping to more convenient e-retail shopping practices.

Target Audience

The key stakeholders of this program evaluation included organizational leaders, e-store customers, and investors. The general goal of the organizational leaders and investors was to increase the organizations revenue and profit (personal communication, January 17, 2018). To help achieve this goal, the organization's leaders identified specific goals for this program which were to (a) increase e-store product sales using rich media, (b) cost-effectively create and maintain rich media to promote profitability, and (c) identify product categories/vertical markets in their portfolio that have responded well financially to the rich media implementation program (personal communication, January 17, 2018). E-store customers incidentally have a stake because they are the beneficiary of the higher quality online shopping experience produced when rich media is used. Two conference call meetings were conducted in January of 2018 with the CEO, CIO, and e-retail marketing manager to determine the program evaluation objectives. Figure 7 is a graphical depiction of a logic model compiled from the goals that the stakeholders identified. Additionally, it was disclosed in the conference call meetings that the e-retail marketing manager was responsible for oversight and administration of daily program operations. At an execute oversight level, the organizational leadership included the CEO and CIO.

Research Questions

Quantitative

- 1. Did profit increase from 2016 to 2017 in the specific product categories that were included in the firm's 2017 rich media implementation program?
- 2. What are the increased annual management costs associated with the firm's 2017 rich media implementation program?
- 3. What are the increased annual server costs associated with the firm's 2017 rich media implementation program?
- 4. What was the average cost for the firm to produce/use a 3-D product image in 2017 and how many total profit dollars does a single product need to generate on average for a 3-D product image to be cost effective?
- 5. What was the average cost for the firm to produce/use a product video in 2017 and how many total profit dollars does a single product need to generate on average for a product video to be cost effective?
- 6. Did consumer retention increase from 2016 to 2017 for consumers with purchases in the specific product categories that were included in the firm's 2017 rich media implementation program?

Qualitative

1. How did the firm decide which product categories should be included in the rich media implementation program?

2. Is there any other information you would like to provide regarding the rich media implementation program?

Data Collection and Analysis Techniques

The purpose of this formative program evaluation was to determine if a rich media implementation program was meeting program objectives. Tables 1 and 2 depict the proposed quantitative and qualitative data collection and data analysis techniques, respectively.

 $\label{thm:continuous} \begin{tabular}{ll} \textbf{Proposed Quantitative Data Collection and Data Analysis Techniques} \end{tabular}$

	Research Question	Data Collection	Proposed Data Analysis
1.	Did profit increase from 2016 to 2017 in the specific product categories that were included in the firm's 2017 rich media implementation program?	Archival data	Descriptive statistics: repeated measures <i>t</i> test
2.	Did annual management costs increase from 2016 to 2017 in the specific product categories that were included in the firm's 2017 rich media implementation program?	Archival data	Descriptive statistics: repeated measures <i>t</i> test
3.	Did annual server costs increase from 2016 to 2017 in the specific product categories that were included in the firm's 2017 rich media implementation program?	Archival data	Descriptive statistics: repeated measures <i>t</i> test
4.	What was the average cost for the firm to produce and use a 3-D product image in 2017?	Archival data	Descriptive statistics: mean (M)
5.	What was the average cost for the firm to produce and use a product video in 2017?	Archival data	Descriptive statistics: mean (M)
6.	Did consumer retention increase from 2016 to 2017 for consumers with purchases in the specific product categories that were included in the firm's 2017 rich media implementation program?	Archival data	Descriptive statistics: repeated measures <i>t</i> test

Table 1

Proposed Qualitative Data Collection and Data Analysis Techniques

	Research Question	Data Collection	Data Analysis
1.	How did the firm decide which product categories should be included in the rich media implementation program?	Semi-structured interviews	Thematic analysis
2.	Is there any other information you would like to provide regarding the rich media implementation program?	Semi-structured interviews	Thematic analysis

Significance

This program evaluation is of value to business operations because consumer purchases are the primary driver of revenue and profit in most estores. Additionally, Jovic, Milutinovic, Kos, and Tomazic (2012) found that estore product-presentation quality directly affects a consumer's purchase intention and that media are the primary means of online product presentation in an e-store. In this evaluation, I sought to analyze if the rich media strategies used by a firm to display products in their e-store product listings increased sales and if rich media is cost-effective.

An evaluation of a rich media implementation program contributed to the effective practice of business by identifying e-store product presentation strategies to improve online sales using rich media. Appealing to consumers'

desires and needs is a driver of retail sales, and ultimately profitability (Carlsson & Chehimi, 2011). Very little prior research exists on e-store product presentation utilizing rich media and this evaluation contributed to the limited information that exists.

This program evaluation is expected to make unique contributions to positive social change by increasing consumer trust in convenient e-retail shopping practices and reducing consumer dependency on inefficient shopping practices at traditional brick-and-mortar stores. Consumers with more detailed product information can make more informed purchasing decisions, resulting in a reduced number of consumer related product returns and a higher quality online shopping experience (Walsh, Albrecht, Kunz, & Hofacker, 2016). A higher quality online shopping experience enhances consumer trust and contributes to the trending societal shift of purchasing products through online means, allowing consumers the ability to save the time and transportation costs associated with shopping at traditional brick-and-mortar stores.

Conceptual Framework

The conceptual framework used in this program evaluation was the media richness theory (MRT). Daft and Lengel (1984) developed the MRT framework and Palmer (2002) and Simon and Peppas (2004) extended it. Researchers use the MRT to explain how communication media vary in their degree of richness, with *richness* defined as the ability of information to change the reader's understanding within an interval of time. Daft and Engel (1984) found that

performance is improved when individuals use richer communication media to convey understanding. The key propositions of the original MRT are as follows:

(a) Of the traditional communication media, face-to-face communication is the richest medium, followed by the telephone; addressed documents and email are the to allow responsive feedback, multiple cues, and the appropriate use of language; and (c) rich media is important in situations containing ambiguity to provide enough information to allow the recipient to formulate the correct interpretation.

Simon and Peppas (2004) built on the MRT and found that the web has the potential to provide consumers with new levels of media richness and new possibilities using modern communication media not addressed in the original theory. However, until recently, broadband speeds were not adequate for many organizations and consumers to use all the web's media richness effectively (Bindrees, Pooley, Ibrahim, & Taylor, 2014). As applied to this program evaluation, now that e-commerce is a substantial sales channel because of broadband technology progression, it seems appropriate to research modern rich media and whether it is effective in improving e-store sales. The MRT has provided a platform for which to facilitate this research because of its exploration of various rich media as a method of communication. Thus, it is plausible to use the MRT to research what rich media strategies e-retail marketing managers use to display products in their e-store product listings and whether it is cost-effective.

Literature Review

In this section of the program evaluation, I present the literature review process used to explore how e-retail marketing managers can display products more effectively to increase consumer sales. To identify relevant literature, I used the following databases: ProQuest, EBSCOhost, Science Direct, Sage Publications, Google Scholar, and Thoreau. To perform the searches, I used the following keywords: *e-store*, *e-retail*, *e-commerce*, *online* product presentation, media richness theory, rich media, and *e-store* sales. I sought peer-reviewed journal articles, books, and government publications.

This literature review included articles relating to the main research question: What strategies do e-retail marketing managers use to improve e-store sales using rich media in e-store product listings? The purpose of this literature review was to provide an overview of relevant studies and address how e-retail marketing managers can present products more effectively to increase consumer sales.

Online product presentation has become a crucial element of e-commerce (Aljukhadar, 2012). With the ongoing trend to save costs on brick-and-mortar retail locations, more retail outlets are opting to put their products online (Aljukhadar & Senecal, 2011). E-stores provide traditional retail outlets the opportunity to reach a broader customer base and help create efficiencies using technology (Qasem, 2014). To take advantage of these positive aspects, e-retail marketing managers need to drive sales upward through the online

presentation/display of their products in a way that is pleasing, simplistic, and convenient to the customer (Aljukhadar & Senecal, 2016; Yoo & Kim, 2014). Implementing various types of multimedia may be a way e-retail marketing manager can accomplish this task. However, ensuring the characteristics of the e-store presentation focus on tasks, such as the consumer completing an online sale, is crucial as well (Aljukhadar, Senecal, & Nantel, 2014). Too much extra unrelated content can hinder the objective of the e-store presentation. The ease of use of a website has been shown to positively contribute to its performance.

New technologies are dramatically changing the way a consumer can search, compare, select, and buying products by providing a more effective shopping experience (Pantano & Verteramo, 2015). However, many e-retail marketing managers are still using older technologies such as basic single-dimensional (2-D) imagery to display their products although technology for three-dimensional (3-D) imagery, or *rotating images*, does exist (Algharabat & Abu-ElSamen, 2013; Feiereisen, Wong, & Broderick, 2013). Furthermore, Internet connection speeds are faster than they were previously and high-definition online videos can be utilized for product presentation as well (Fandrich, Barrot, & Mittelstädt, 2013). The lack of utilization of these newer technologies could indicate some e-retail marketing managers lack strategies for utilizing rich media in their e-store product listings.

Conceptual Framework

Introduced by Daft and Lengel (1984), the MRT theory is a theory used to describe a communication medium's ability to produce information sent over it. Initially, Daft and Lengel introduced it as an extension of the information processing theory (IPT) which compares humans to computers and tries to understand the way information is processed and managed by the human mind (Daft & Lengel, 1984). After continued development, Daft and Lengel applied the MRT to enhancing team performance in the workplace, selecting the appropriate media for a given situation, as well as touching briefly on consumer decision-making.

The MRT has been extended in many different directions by other researchers including (a) corporate social responsibility in disclaimers and advertising, (b) interaction efficiency between teams using media, (c) enhancing job seeking and recruitment activities using "new media" opportunities, (d) exploring the use of media in distance education and e-books, (e) new rich email techniques, and (f) general website richness (Bindrees, Pooley, Ibrahim, & Taylor, 2014). This program evaluation will focus on website product listings and if rich media contributes to better product understanding for the consumer resulting in increased sales. Additionally, this program evaluation will analyze the cost-effectiveness of implementing rich media in e-stores.

A visual depiction of the basis of the MRT is found in Figure 1 below. Essentially, the complexity of the task dictates the amount of media richness to

be most effective and efficient (Daft & Lengel, 1984). If a task is more complex, the information recipient or customer will require richer media to understand the intent to be conveyed. Overly rich media used for simple tasks can cause a deficiency, as well as not rich enough media for complex tasks (Daft & Lengel, 1984). The underlying premise is that for maximum efficiency, relevant to the recipient understanding the conveyed message, the media richness needs to match the complexity of the task (Daft & Lengel, 1984). As related to customers understanding product data, if a simple product has a significant amount of rich media and the customer decides to purchase after only viewing half the data provided, over complication has occurred. Over complication is the lost time or inefficiency created by the recipient or customer reviewing additional ancillary media after already understanding the intent of the message (Daft & Lengel, 1984). Conversely, over simplification can result in lost time as the message recipient or customer will not understand the intent of the message provided and will need extra time to figure out the intent, or will misconstrue what is being conveyed and take the wrong path (Daft & Lengel, 1984). As related to customers understanding product data, if there is not enough rich media describing and displaying the product, the customer will not understand the intent of the product and will spend additional time trying to figure out more about the product, or will misunderstand the purpose of the product. If this takes place, the sale of the product may be in jeopardy.

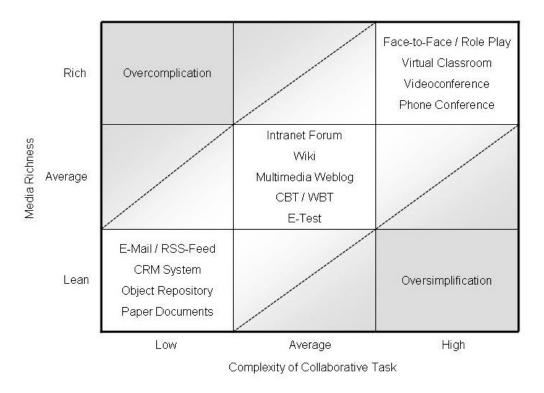


Figure 1. Media richness theory.

In the MRT, the degree of richness is characterized by the ability of the media to allow responsive feedback, handle multiple cues, and contains the appropriate use of language for ease of understanding (Daft & Engel, 1984). Daft & Engel (1984) originally found that of traditional communication mediums, Face-to-face communication is the richest medium, followed by telephone, and then addressed documents and email as the leanest medium (Daft & Engel, 1984). However, the available forms of rich media at the time Daft and Engel performed their research is far less than what we have available now.

Technological expansion has allowed for the addition of additional various media types of communication (Klitmøller & Lauring, 2013; Cai & Jun, 2015). In the traditional sense, a website is a communication medium itself. However, the

versatility, complexity, and various media options a website presents requires us to drill deeper and explore the actual types of media and methodologies utilized to communicate through them. The richness of each type of multimedia and how they are used in conjunction with each other to communicate the intentions of the provider to the recipient is what the researcher of this program evaluation is seeking to determine.

The findings of the MRT indicate that richer media is particularly important in situations containing ambiguity or confusion by providing enough relevant information to allow the recipient to formulate the correct interpretation or intended response (Kirkman, Cordery, Mathieu, Rosen, & Kukenberger, 2013). These findings can be applied to consumer responses by providing the consumer with enough relevant information to allow them to understand the provider's intent for the product so that they can make an informed decision. According to Yoo (2010) and Prenger (2016), consumers without enough product information have a low probability of purchasing a product. Conversely, it may not be costeffective for organizations to create 3-D images and product videos.

Problem

The MRT framework has been used in many studies by various researchers and extended in different directions. The review of these extensions is important for the researcher to comprehend the MRT fully. Below is a review of the studies that touch on the focus of this program evaluation.

Dennis, Kinney, and Hung (1999) utilized the MRT to explore the difference in team performance when using gender variations in a team environment. Dennis, Kinney, and Hung (1999) found that when measuring the performance of equivocal tasks that the richness of media had the most noticeable effect on teams comprised of all female participants. If applied to a female consumer, this could indicate increased media richness could result in better understanding of the product and potentially increased sales. Additionally, Dennis, Kinney, and Hung (1999) found that all male, and mixed teams of male and female, did not respond as well to media richness adjustments. In mixed and all male teams, media richness did not improve decision quality or communication satisfaction of the team. If applied to a male consumer, this could indicate increased media richness may not generate better understanding of the product and may not influence sales. Table 3 below displays the results found by Dennis, Kinney, and Hung (1999).

Table 3
Gender discrepancy

Measure	Task equivocality	Female groups	Male groups	Mixed- gender groups	Female groups	Male groups	Mixed- gender groups
Decision time	Low	7.00 (2.16)	9.67 (3.21)	9.55 (2.21)	23.33 (11.37)	25.83 (8.47)	27.75 (7.44)
	High	6.00 (2.58)	9.67 (8.02)	10.45 (6.14)	31.67 (10.41)	17.33 (10.44)	14.88 (7.75)
Decision quality	Low	.32 (.68)	.52 (.68)	.16 (.80)	.91 (.00)	47 (1.39)	57 (1.05)
	High	.86 (.49)	63 (.78)	.17 (.95)	.39 (1.06)	29 (1.11)	36 (1.07)
Consensus change	Low	.188 (.239)	.417 (.382)	.227 (.325)	.167 (.289)	.542 (.292)	.000 (.582)
Ü	High	.625 (.595)	.417 (.382)	.500 (.387)	.583 (.382)	.375 (.542)	.437 (.513)
Satisfaction	Low	4.99 (.66)	5.25 (1.09)	5.09 (.72)	5.33 (.84)	5.00 (.50)	4.90 (.75)
	High	4.88 (.64)	5.23 (1.11)	4.98 (.86)	5.46 (.89)	4.78 (.64)	4.83 (.88)

The results of the Dennis, Kinney, and Hung (1999) study are interesting and have some validity in a team environment, but they are somewhat limited in that the research is focused primarily on team and not individual interaction. For this program evaluation, individual interaction is more relevant because individuals and not teams make most customer purchases. Secondly, Dennis, Kinney, and Hung's (1999) research focused on communication satisfaction, and that is not a core characteristic of the native MRT framework. Finding the most efficient medium for communication based on recipient understanding is the core MRT principal (Daft & Engel, 1984). The findings that females in a team

environment respond better to rich media is intriguing and could be relevant as this program evaluation is interested in e-store product presentation which may lead to more online sales. If richer media could generate increased sales from female customers, organizations in e-retail need to know that so they can adjust their marketing strategies.

Perceived trust in an e-store platform can also have a positive impact on consumer sales. Visual website disclosures using rich media can increase the perceived trust factor of the consumer (Cho, Phillips, Hageman, & Patten, 2009). Cho et al. (2009) found that for both environmental and nonenvironmental website disclosures, the amount of perceived trust increased as richer media was introduced. Saat and Selamat (2014) had similar findings in that the perception of corporate responsibility increased along with the level of media richness. These findings indicate that an increase in media richness increases the consumer's perceived trust which positively impacts e-store sales.

An important item to note in the Cho et al. (2009) study is the type of rich media chosen by the researchers. Text was the initial baseline media used and both pictures and videos were added to it. You can see in Figure 2 below that videos increased perceived trust the most and that images were a close second. Saat and Selamat (2014) experienced a greater impact with video as well. This increase in perceived trust indicates that video is a richer media than images. These findings are important because Daft and Lengel (1984) did not address streaming video in the initial theory because it was not a widely available media

at that time. However, video producing stronger results in multiple studies indicates it is a richer media than images and that it could be a strong candidate to increase e-stores.

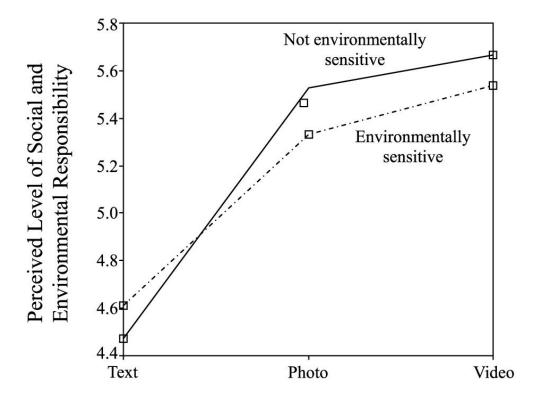


Figure 2. Website disclosures and perceived end-user trust.

The use of rich media in e-store product advertising can also have an impact on e-store sales. Simon and Peppas (2004) investigated whether the enduser had increased levels of satisfaction and a higher positive attitude toward an e-store that advertised using rich media. The researchers utilized text, photos, and videos in their website advertisements and found that the end-user had the highest levels of satisfaction when the most information could be provided to them (Simon & Peppas, 2004). More importantly, using the richest media was identified as the most effective means of providing the most information (Simon

& Peppas, 2004). Daft and Lengel (1984) had similar findings in the original MRT where using rich media was identified as means of transferring the most information to the end-user in the shortest amount of time. This efficient transfer of information to the end-user indicates that the premise of the original MRT still holds true even when using modern rich media types, such as video. Additionally, this increase in consumer satisfaction resulting from the use of photos and videos in e-store product advertisements should be a consideration of e-store marketing managers and designers during site development.

Consumer response to an e-store can also be affected by the level of interactivity in product presentation. Wu (2014) found that by using rich media to increase the level of interactivity in product presentation positively affected the consumer's response. Additionally, Wu (2014) found that using rich media in general website layout increased interactivity and had an overall positive effect on the consumer's experience. Wu's (2014) findings are consistent with that of Simon and Peppas (2004) and Cho et al. (2009) in that video was found to be a rich media that has a positive effect. This use of video to generate an interactive website further supports streaming video as a legitimate rich media. Hence, the use of rich media as a means of increasing user interactivity should be a consideration of organizations with e-stores.

Using rich media can have an impact on international e-store operations as well. Peltokorpi (2015) argued that using rich media has a positive effect on understanding in international communication. As depicted in figure 3 below,

Peltokorpi (2015) found that as media richness increased, the more communication and understanding increased as well. Algharabat and Zamil (2013b) also found that regardless of language barriers, richer media could convey increased understanding. This increase in understanding across languages and cultures is particularly important for e-stores as they consider language barriers and potential cultural differences between their various customers. E-store organizations are a large part of the global economy and cultural differences of consumers are a valid concern. Most e-store sites are accessible from anywhere in the world and will have language and cultural challenges to address. Hence, enhancement of international consumer communication and understanding through the use of rich media will increase e-store sales and should be considered by e-stores managers.

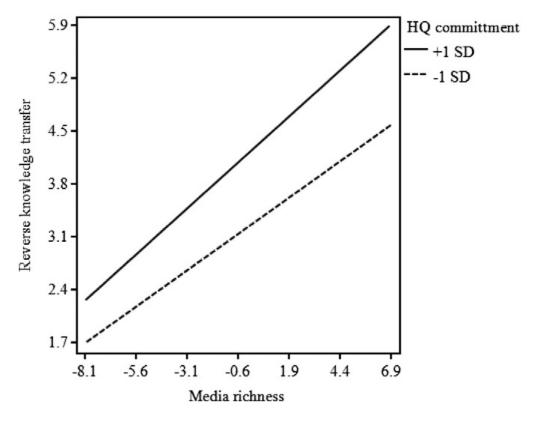


Figure 3. Knowledge transfer in international business.

The use of rich media can also affect a consumer's retail channel choice. Maity and Dass (2014) argued that consumers prefer medium and high levels of media richness for purchases involving complex products. Conversely, Maity and Dass (2014) found for consumer decision-making involving simple products, low levels of media richness were adequate. Algharabat and Zamil's (2013b) had similar findings in that the richest online media available, video, was preferred by the consumer when contemplating purchase decisions of complex products. This use of the richest media available to convey better understanding to a consumer contemplating the purchase of complex products indicates e-store designers need to consider using video for their complex product listings.

The use of rich media can also influence consumer response in e-stores with service-based product lines. Lu, Kim, Dou, and Kumar (2014) argued that the use of rich media in a health club's service-based e-store resulted in consumers buying more memberships. Lu et al. (2014) focused on the utilization of rich media, particularly 3-D (rotating) images, along with what they termed interactivity, or the ability to manipulate the different 3-D images displayed with zoom and pan functionality. Most previous research did not address the ability to manipulate 3-D images. Lu et al. (2014) setup 4 separate e-store sites, one with six 2-D images, one with a 3-D image, and 2 more with zooming and panning interactivity applied to each (see figure 4 for a visual depiction). The Lu et al. (2014) findings indicated that the utilization of one 3-D image resulted in the best consumer response (see figure 5). Additionally, the increase in interactivity through zoom and pan of the 3-D image had little effect on consumer response (Lu at al. 2014). However, when the consumers were forced to use the 2-D version of the e-store, with 6 standard images, interactivity through zoom and pan was considered more important by the consumer (Lu at al. 2014). Spindler, Schuessler, Martsch, and Dachselt (2014) had similar findings and found that zoom and pan functionality was important when using 2-D images. This use of pan and zoom interactivity on 2-D images to increase positive consumer response is important if using 2-D images, however, service-based e-store designers should consider using 3-D images as an alternative.

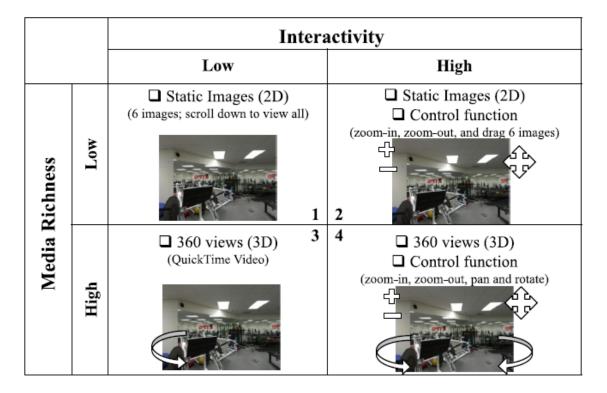


Figure 4. Four different versions of the website with various conditions.

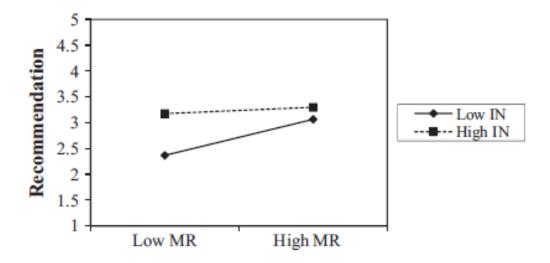


Figure 5. Media richness and interaction resulting in recommendation.

Interactivity in a product-based e-store can affect the consumer's response. Algharabat's (2014) study found that visual control and graphical characteristics increased a user's perception of trust. Furthermore, Algharabat and Zamil (2013a) found that increased perceived trust resulted in more sales. Lau (2015) affirmed Algharabat and Zamil's findings and found that 3-D product visualization using pan interactivity positively influences the product knowledge, brand attitude, and purchase intention of consumers. Lau (2015) also found that interactivity in 3-D product visualization enhances the consumer's learning as compared to a static 2-D product visualization. This positive response to interactivity in 3-D images needs to be a consideration of e-store designers.

Rich media can also benefit e-stores when used to interact with product suppliers and manufacturers. Thomas (2013) found that using rich computer-aided media, versus face-to-face communication, in the design phase of new product development was beneficial for the supplier and retailer. The classic MRT asserts that face-to-face is the richest form of media (Daft & Lengel, 1984), however, face-to-face interaction has now taken the form of video conferencing in the global economy. The use of rich media to facilitate supplier-retailer interaction is a cost saving measure for the e-store (Peltokorpi, 2015). This cost savings will ultimately be passed on to the consumer and will result in increased sales as well as a more satisfied consumer.

An important item to note in the Thomas (2013) study is that even though video conferencing was effective in facilitating new product meetings, face-to-face

was still considered a richer media. However, as Peltokorpi (2015) noted, the rich media chosen for a task must be cost-effective. Using video conferencing is a much cheaper option then travelling staff around the globe for face-to-face meetings (Thomas, 2013). This cost-effective approach to rich media must be a consideration e-store managers take into account for product development and e-store product listings.

E-store advertising through social media product listings can also be impacted by rich media. Coursaris, van Osch, Balogh, and Quilliam (2014) found that increased media richness in social media product advertising resulted in higher consumer engagement. Coursaris et al. (2014) measured consumer engagement by the number of Facebook likes, comments, and shares. Coursaris et al. (2014) investigated text-only, then photo, and video. Text-only resulted in the lowest level of consumer engagement (Coursaris et al., 2014). Richer media combined with text, like text with a video, increased consumer engagement considerably (Coursaris et al., 2014). Additionally, text with a photo increased consumer engagement compared to text alone (Coursaris et al., 2014). This progression of media richness from text to photo to video is consistent with Simon and Peppas (2004) and Yoo's (2010) findings where text is the least rich and video is the richest of the three. This increase in consumer engagement from using richer medias needs to be considered when E-store managers make decisions as to what type of rich media they decide to use.

Consumer excitement can also be affected by using rich media in an estore. Li and Meshkova (2013) found that rich media enhanced the feeling of informedness and increased excitement for consumers during their online shopping experience. Other researchers agree and have argued that a more informed consumer is more likely to purchase (Aldhmour & Sarayrah, 2016; Chen, Yen, Kuo, & Capistrano, 2016; Wang & Hazen, 2016). This increase in consumer purchase intention will result in increased sales. Hence, e-store managers need to design and implement rich media into their e-stores.

Alternative/Competing Theories

There have been some criticisms of the MRT since its introduction in 1984 (Brunelle, 2009). The scope of the theory, the cultural and social limitations, and the application of "new media" have been questioned (Brunelle, 2009). Some researchers have suggested the MRT is too deterministic and that it doesn't account for outside pressures (Markus, 1994). This program evaluation intends to explore the application of rich media through the MRT lense and provide information to help explain these areas in question.

Markus (1994) argued that social pressures can influence media with greater effect than richness. Markus (1994) went on to say that the MRT should not assume using richer media in a given situation is completely opposite to using leaner media choices. Additionally, Markus (1994) feels that that media chosen is a complex decision and that in some circumstances lean media can replace rich media and still have the desired effect. However, Markus (1994) does not

consider the efficiency of the media in conveying the message to the recipient. A considerable difference is that the MRT strives to convey the message in the shortest time interval that the recipient needs to understand the provider's intention (Daft & Engel, 1984). Markus (1994) does concede that the use of lean or rich media may have a noticeable difference for some communications or tasks. This program evaluation will explore these noticeable differences between using rich and lean media in e-store product listings and will help explain the effectiveness of using rich media in the e-store environment.

Some researchers feel that an individual's familiarity with the media choices available dictates what media they choose. Markus (1994) feels the information provider may pick a richer choice in the event the provider is not familiar with a leaner, possibly more appropriate, method. For example, if the information provider is not familiar with a lean media technology, like email, instead of using email as their method of conveyance the provider may choose to use a richer media, like having a group meeting. Markus (1994) argues that the information provider picking a richer choice in the event the provider is not familiar with a leaner choice would result in a potential "over complication" in the MRT framework. Marcus (1994) feels that previously established experience, in a social context, could determine the media choice utilized regardless of richness. The MRT does account for the use of incorrect media choices through its over complication and over simplification characteristics (Daft & Engel, 1984). The over complication and over simplification characteristics allow for the use of

incorrect media to adjust for human variance in the theory. The MRT is designed to be used to determine the efficiency of the media used for conveyance, with the most efficient being the logical choice an information provider should use (Daft & Engel, 1984). However, the MRT does allow for communication conveyance by the fastest means possible given the circumstances. If the fastest way for an individual to communicate is to use a leaner media because they are not familiar with a richer media, the MRT dictates that the leaner media was the right choice because using the richer media would have been too complex for the individual and been a slower method of communication because of lack of familiarity with the richer media. As applied to this program evaluation, E-store managers need to follow the MRT and make sure the rich media chosen to display a product is not too complex and confusing for the consumer.

Another similar criticism of the MRT is that some researchers have found that media choice cannot be determined or predicted by the MRT. Gerritsen (2009) found that in business environments, culture plays a role in determining the receiver's preference of media. However, the MRT does not address the preference chosen by an individual but rather what is most efficient for conveying the intent of the message (Daft & Engel, 1984). This difference is important to recognize because individual preference is not a component of the MRT. The MRT recommends using the richest media possible that an individual understands how to use.

New media has also caused some criticism of the MRT (Brunelle, 2009). Since the original development of the MRT was before the rapid expansion of the internet, media like video, chat rooms, instant messaging, and video conferencing were not heavily addressed in the original theory (Brunelle, 2009). Brunell (2009) questions the validity of the original theory because of technological advancement. However, Brunelle (2009) does recognize that some other researchers have extended the MRT to include more recent media types and the core value of the MRT is still valid in this respect. Brunelle (2009) feels new media types must be continually evaluated to determine their richness and applied to the MRT accordingly. This continual rich media evaluation aligns with Daft and Engel's (1984) original theory that allows for media richness being determined by the duration of time it takes to convey information. Hence, this program evaluation will explore which rich media can convey information to a consumer in the shortest amount of time.

Kock (2004) developed the media naturalness theory (MNT) as an alternative to the MRT. Kock (2004) posited that since the beginning of human evolution, humans' hominid ancestors have communicated using primarily face-to-face communication and that the human brain has developed and adapted to face-to-face communication more than any other form. Kock (2004) suggests that other forms of communication are too new for the brain to have adapted to them. Thus, they end up posing cognitive obstacles in communication. These findings are in direct contrast to the MRT as the authors of the MRT do not suggest that

there is a degree of human evolution or long-term adaptation to different forms of media (Daft & Engel, 1984). Additionally, Kock (2004) posits as the complexity of the task increases, so does the degree of cognitive obstacle when using other forms of communication. Figure 6 below shows a visualization of the MNT framework.

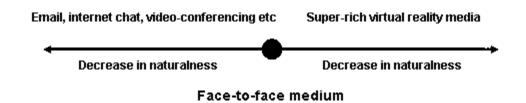


Figure 6. Media naturalness theory.

According to Kock (2004), face-to-face is always the richest media and enables the highest level of productive communication. The highest level is characterized by five key elements: (a) a high degree of co-location, which would allow the individuals engaged in a communication interaction to see and hear each other; (b) a high degree of synchronicity, which would allow the individuals to quickly exchange communicative stimuli; (c) the ability to convey and observe facial expressions; (d) the ability to convey and observe body language; and (e) the ability to convey and listen to speech (Kock, 2004). Upon detailed review of the Kock's five characteristics, I see no reason why video conferencing would not achieve similar media richness results as face-to-face communication. The MRT allows for video conferencing to be used as a cost-effective rich media alternative to face-to-face communication but the MNT does not.

A similarity of the MRT and MNT is they both value similar traits when assessing the richness of a media such as a media's ability to convey understanding (Kock, 2004; Daft & Engel, 1984). However, the MRT does not limit the richness of a media based on its distance or difference from face-to-face communication. The MRT sees the value in face-to-face as well as other forms of communication and evaluates media richness based on the time it takes for the recipient to understand the provider's intention (Daft & Engel, 1984). Unlike the MNT, the MRT's openness to new media is why I chose this framework for this program evaluation.

Another alternative to the MRT is the cognitive load theory (CLT). The CLT relates human mental capacity to media richness (Badger, Kaminsky, & Behrend, 2014). The CLT posits that information overload in a short period of time can have a negative impact on the individual retaining information (Badger, Kaminsky, & Behrend, 2014). The researchers used the example of cramming for a test resulting in little retained long-term information (Badger, Kaminsky, & Behrend, 2014). The results indicate that richer media may be overwhelming and cause an individual to not retain long-term information. This is contrary to the MRT where the belief is that information can be conveyed faster with the use of rich media (Daft & Engel, 1984). As applied to this study, we only need the consumer in an E-store to retain product information until they checkout. Hence, the CLT information retention findings do not apply.

Transition

In Section 1 of this study, I identified the conceptual framework as the Media Richness Theory (MRT) and the primary research question as determining if a rich media implementation program is meeting program objectives. Next, I discussed the significance of this study and how using rich media may increase consumer trust in convenient e-retail shopping practices and reduce consumer dependency on inefficient shopping practices at traditional brick-and-mortar stores. Then, I presented the quantitative questions I will answer that relate to the research question. Last, I conducted a comprehensive literature review to explore similar research related to the program evaluation I will be performing.

Section 2: Project Design and Process

Method and Design

Method

The purpose of this summative program evaluation was to determine if a rich media implementation program was meeting program objectives. The forprofit program, which is located in Texas but sells products online across the entire United States, is dedicated to finding ways to generate more profit by using rich media to enhance the display of products in e-store product listings.

Participants included the e-retail marketing manager and organizational leadership. The implications for positive social change included the potential for increased consumer trust in e-retail as a result of consumers who are more informed and have experienced a higher quality, online shopping experience.

Increased trust contributes to the social behavioral shift from traditional brickand-mortar retail shopping to more convenient e-retail shopping practices. The following quantitative and qualitative questions were answered to determine if the subject organization's rich media implementation program was meeting its goals:

Quantitative questions

1. Did profit increase from 2016 to 2017 in the specific product categories that were included in the firm's 2017 rich media implementation program?

- 2. What are the increased annual management costs associated with the firm's 2017 rich media implementation program?
- 3. What are the increased annual server costs associated with the firm's 2017 rich media implementation program?
- 4. What was the average cost for the firm to produce and use a 3-D product image in 2017?
- 5. What was the average cost for the firm to produce and use a product video in 2017?
- 6. Did consumer retention increase from 2016 to 2017 for consumers with purchases in the specific product categories that were included in the firm's 2017 rich media implementation program?

Qualitative questions

- 1. How did the firm decide which product categories should be included in the program?
- 2. Is there any other information you would like to provide regarding the rich media implementation program?

Design

The intention of a summative program evaluation is to assess whether an existing program is meeting its intended goals (Bennett, 2011). By contrast, a *formative* evaluation is intended to help develop a program and focuses on ongoing improvement to individual activities as part of the ongoing develop of a new program (Bennett, 2011). I chose summative because the rich media

implementation program has been in place for over 1 year and the firm requested an evaluation of whether the entire program was meeting its goals.

The general goal of the organizational leaders and investors was to increase the organizations revenue and profit (personal communication, January 17, 2018). To help achieve this goal, the organization's leaders identified specific goals for this program which were to (a) increase e-store product sales using rich media, (b) cost-effectively create and maintain rich media to promote profitability, and (c) identify product categories/vertical markets in their portfolio that have financially responded well to the rich media implementation program (personal communication, January 17, 2018). E-store customers incidentally have a stake because they are the beneficiary of the higher quality online shopping experience produced when rich media is used. Two conference call meetings were conducted in January of 2018 with the CEO, CIO, and e-retail marketing manager to determine the program evaluation objectives. Figure 7 below is a graphical depiction of a logic model compiled from the goals the stakeholders identified.

Rich Media Implementation Program Logic Model

Inputs Resources dedicated to or consumed by the program	Activities What the program does with the inputs to fill its mission	Outputs (the direct products of the program)	Outcomes Benefits for participation during and after the program			
 Money Staff Server Hardware Operations Facilities 	 Create 3-D product images and attach to products in estore site Create/produce product videos and attach to products in estore site 	 No. of products sold No. of return customers 	 Increased sales/profit Increased consumer retention/ return customers Increased long-term organizational stability 			
Contextual Factors (internal and external)						

Figure 7. Rich media implementation program evaluation logic model.

Qualitative studies utilize non-numeric data to investigate human behaviors and the rationale that governs those behaviors (De Massis & Kotlar, 2014; Moustakas, 1994). Additionally, qualitative research affords the researcher the opportunity to understand subjects' motivations, reasons, actions, and the context for their beliefs and actions, in depth (Meyer, 2013). Furthermore, triangulation can be achieved in qualitative research using interviews, focus groups, exploring documents, and observations (Harland, 2014). I selected the qualitative method for a portion of this study to determine how the firm decided which product categories should be included in their rich

media implementation program. I utilized semistructured interviews to answer the question displayed in Table 4 below.

Table 4

Proposed Qualitative Data Collection and Data Analysis Techniques

Research Question	Data Collection	Data Analysis
1. How did the firm decide which product categories should be included in the rich media implementation program?	Semistructured interviews	Thematic analysis
2. Is there any other information you would like to provide regarding the rich media implementation program?	Semistructured interviews	Thematic analysis

Quantitative research is used to examine relationships among variables, uses closed-ended questions, and tests hypotheses (Bansal & Corley, 2012; Yilmaz, 2013). Additionally, quantitative research typically involves the analysis of the relationship between numeric data (Cokley & Awad, 2013). I used quantitative statistical analysis to answer the questions displayed in Table 5 below.

Table 5

Proposed Quantitative Data Collection and Data Analysis Techniques

	Research Question	Data Collection	Proposed Data Analysis
1.	Did profit increase from 2016 to 2017 in the specific product categories that were included in the firm's 2017 rich media implementation program?	Archival data	Descriptive statistics: repeated measures <i>t</i> test
2.	Did annual management costs increase from 2016 to 2017 in the specific product categories that were included in the firm's 2017 rich media implementation program?	Archival data	Descriptive statistics: repeated measures <i>t</i> test
3.	Did annual server costs increase from 2016 to 2017 in the specific product categories that were included in the firm's 2017 rich media implementation program?	Archival data	Descriptive statistics: repeated measures <i>t</i> test
4.	What was the average cost for the firm to produce and use a 3-D product image in 2017?	Archival data	Descriptive statistics: mean (M)
5.	What was the average cost for the firm to produce and use a product video in 2017?	Archival data	Descriptive statistics: mean (M)
6.	Did consumer retention increase from 2016 to 2017 for consumers with purchases in the specific product categories that were included in the firm's 2017 rich media implementation program?	Archival data	Descriptive statistics: repeated measures <i>t</i> test

To analyze the qualitative and quantitative data collected, this study utilized thematic analysis, mean and summation statistics, and repeated measures t tests. I analyzed the qualitative data collected from the interview questions in Table 4 by performing a thematic analysis. Researchers have found that using a data organization and analytics software, such as NVivo, allows the researcher to analyze research data and recognize trends during thematic analysis (Castleberry, 2014). NVivo helps the researcher to identify themes by analyzing specific word frequencies (Hamersly, 2015). After completion of the interviews and member checking, I uploaded the audio recordings into NVivo. I reviewed and transcribed the audio recordings using NVivo's transcribing tool. I then slowly played the recordings allowing me to type participant responses accurately. Next, I performed data cleansing to remove any irrelevant data that did not align with the purpose of this study. Data cleansing is the process of removing any irrelevant data that did not align with the purpose of a study (Chu & Ilyas, 2016). Lastly, I used NVivio to code participants and analyze the remaining data. NVivo created Nodes for coding stripes and aided in identifying themes.

I analyzed the quantitative data collected by performing descriptive statistics in the form of means, summations, and repeated measures *t* tests. To assist in statistically analyzing the data, I used a software tool called Statistical Package for the Social Sciences (SPSS). Researchers have found SPSS to be beneficial in performing calculations related to statistical analysis (Brezavscek,

Sparl, & Znidarsic, 2014; Teodora & Silviu, 2013). I imported the data collected into SPSS and performed descriptive and inferential statistical analysis inside the software.

Prior to data analysis, I examined the collected data to verify it is complete and not missing information. This process is known as data cleaning (Leong & Austin, 2006; Fink, 2013). The data cleaning process ensures that the data used to drive the statistical analysis is accurate (Fink, 2013; Leong & Austin, 2006). If missing data was encountered in this program evaluation, I contacted the organization and request the missing data from their records prior to performing data analysis.

When performing quantitative research, the researcher relies on assumptions being met for the variables being used (Derrick, Toher, & White, 2016; Fink, 2013). If the assumptions are not met, errors can occur and the test cannot be completed in its current form (Derrick, Toher, & White, 2016; Fink, 2013). This evaluation used parametric repeated measures *t* tests for data analysis. Parametric tests assume normally distributed data whereas nonparametric tests do not assume normality (Derrick, Toher, & White, 2016; Fink, 2013). Parametric repeated measures *t* tests rely on four assumptions including (a) the dependent variable must be continuous in interval and ratio, (b) that observations are independent of one another, (c) the dependent variable should be approximately normally distributed, and (d) the dependent variable should

not contain outliers (Derrick, Toher, & White, 2016; Fink, 2013). If there is a violation in these assumptions, errors can occur.

There are different types of errors that can occur when assumptions are not met. The improper rejection of a true null hypothesis is referred to as a Type I error (Derrick, Toher, & White, 2016; Fink, 2013). The failure to reject a false null hypothesis is considered a Type II error (Derrick, Toher, & White, 2016; Fink, 2013). To avoid these errors, I attempted to meet all assumptions. If all assumptions could not be met, I changed my test to an appropriate test that fits the given conditions.

Researchers should also check for normality violations when performing parametric tests. To check for a normality violation the researcher can generate a histogram to visually check for an approximately symmetric and bell-shaped graph indicating normality (Derrick, Toher, & White, 2016; Fink, 2013). Additionally, to check for outliers, the researcher can generate boxplots and identify any outliers (Derrick, Toher, & White, 2016; Fink, 2013). If a normality violation is found, a *t* test is not appropriate and should not be used (Derrick, Toher, & White, 2016; Fink, 2013). Therefore, in this program evaluation I generated a histogram and boxplots to verify normality. If a normality violation was found, I did not use a *t* test.

A researcher can perform different tests if serious assumption violations occur. If there are serious assumption violations in the data slated to be used in a repeated measures t test, the Wilcoxon Signed-Rank Test can be used as an

alternative (Derrick, Toher, & White, 2016; Fink, 2013). Therefore, I used the Wilcoxon Signed-Rank Test if any serious assumption violations are encountered.

Marshall and Rossman (2016) claimed that there are four important components of qualitative validity: (a) credibility, (b) dependability, (c) transferability, and (d) trustworthiness. Creditability relies on the researcher achieving data saturation (Liang & Chi, 2013). The ultimate objective is to use the appropriate sample size for the study design selected to reach data saturation (Morse, Lowery, & Steury, 2014). The researcher determines when data saturation is reached by the number of participants needed for data to become repetitive and no new data emerge from participants' responses to interview questions (Elo et al., 2014). I attempted to achieve data saturation with a sample size of three participants. If three participants were not enough to achieve saturation, I continued to ask participants questions to achieve data saturation. If I did not achieve data saturation after asking participants additional questions, I recruited additional participants until I reached data saturation.

Transferability refers to how easily particular findings can be transferred to other comparable research (Houghton et al., 2013). Semistructured interviews and open-ended questions enhance transferability and make it easier to apply current research to other populations (Marshall & Rossman, 2016). Additionally, increasing transferability includes interviewing participants in like conditions (Duggleby & Williams, 2016). To enhance transferability in this

study, I interviewed all participants over the phone and at the same time of day. I also provided transcripts from study participants and other data to the reader. Lastly, I was provided copies of the companies' financial documents associated with this research.

Dependability and trustworthiness refer to how neutral and accurate the results are (Houghton et al., 2013). Keeping introspective notes helps to prevent bias and ensures confirmability (Marshall & Rossman, 2016). Additionally, NVivo can help the researcher organize data and accurately interpret results (Hamersly, 2015). To help maintain a high level of dependability and trustworthiness, I kept introspective notes and used NVivo to run queries to find the frequency of words and identify themes. Keeping introspective notes and using NVivo helped increase the accuracy of the results produced from the data analyzed in this study.

Sampling techniques are utilized by researchers to generalize results of a larger population (Fink 2013). Sampling techniques are categorized as either non-probabilistic or probabilistic (Daniel, 2012). Non-probabilistic is a non-random sampling technique whereas probabilistic is random (Daniel, 2012). This scope of this study was an evaluation of a program at one organization which limited the sample size to that organization and a random probabilistic sample was not feasible. A non-probabilistic sample was more appropriate because the sample available was not random.

Non-probabilistic sampling has four procedures that can be employed by the researcher including (a) availability, (b) purposive, (c) quota, and (d) snowball (Daniel, 2012). Availability is a sampling procedure where units are selected from the target population based on their availability or convenience (Daniel, 2012). Purposive is a sampling procedure where units are selected from the target population based on their fit with the purpose of the study (Daniel, 2012). Quota is a sampling procedure where the population is divided into mutually exclusive subcategories (Daniel, 2012). Interviewers solicit participation in a study from members of subcategories until a target number of elements to be sampled have been met. (Daniel, 2012). This study used the availability procedure for all analysis because data was being provided to the researcher by the organization with the program being evaluated. The organization controls what data is made available to the researcher. A general limitation of the non-probabilistic availability technique is that random probabilistic sampling techniques are typically preferred in research to generate a broad and unbiased sample (Daniel, 2012). However, the scope of this this study was a single organization and the available population was small, warranting the need to use relevant data available. A positive of using a small sample size of available data that is collected from the organization being evaluated is that all the results of the data analysis will be directly applicable to the subject organization.

An important aspect of any study is determining the correct sample size (Liang & Chi, 2013). The ultimate objective is to use the appropriate size for the study design selected (Morse, Lowery, & Steury, 2014). To determine the correct sample size from the available population in this study, I used G*Power statistical software to conduct an apriori sample size analysis (Faul, Erdfelder, Buchner, & Lang, 2009). If we assume a medium effect size of dz = 0.5, and alpha of a = 0.05, and a power of 0.80, G*Power indicated I needed a minimum sample size of 34. The four t tests I performed in this study, as indicated in Table 5 above, all compare 2016 data to 2017. Therefore, it was logical to compare data in weeks in all four t tests in this study. Furthermore, if the required minimum sample is 34 weeks, and the t tests are comparing 2016 data to 2017, it would be logical to choose 52 weeks as the sample size. Hence, I compared 52 weeks of data from 2016 to 2017 for all four t tests.

Ethics

Informed consent is a process to protect participants from exposure to unethical research (Barker, 2013). After receiving approval from the Institutional Review Board (IRB) at Walden University (Approval No. 02-28-19-0329114), I selected participants based on specific criteria following a recruitment process that determined the most viable candidates. I sent a letter of invitation through email that explained the intent of the study and included a Participant Consent Form (Appendix A) for their review. If the participant agreed, the participant signed electronically by replying to the email, *I consent*. The Participant Consent

Form also included a sampling of interview questions and explained that I intended to audio record the interviews. A participant consent form typically clarifies that participation in a study is completely voluntary and that the participant can withdraw at any time (Wolgemuth, et al., 2015). I specified that the participant can withdraw from this study at any time by emailing me their intentions. In the event a participant was to withdraw; I would shred the data they provided. No compensation was provided to participants outside of their normal wages as they were all employed by the organization being analyzed and were going to participate on company time.

Participant identification codes are used instead of a participants' names to maintain participant anonymity and embrace ethical practices (Vanclay, Baines, & Taylor, 2013). Additionally, organizations of participants can be identified by pseudonym code to protect the organization anonymity (Wolgemuth et al., 2015). I used participant identification codes and organization pseudonym codes to maintain participant and organization anonymity. Furthermore, any information that was obtained through the interview process was stored electronically on a password-protected external hard drive, with a password-protected backup drive, that I will then delete both after 5 years. These measures will maintain the confidentiality of the information obtained through this study.

Transition

In Section 2 of this study, I identified that the purpose of this summative program evaluation was to determine if a rich media implementation program is meeting program objectives. Next, I identified the key stakeholders as organizational leaders, e-store customers, and investors. Then, I indicated that repeated measures t tests and thematic analysis were conducted to evaluate program objectives. Last, I discussed the ethical research practices that were used to maintain participant anonymity and ensure quality research including using participant identification codes to maintain participant confidentiality, and storing all data on a password-protected external hard drive that I will discard after 5 years.

Section 3: The Deliverable

Executive Summary

Purpose of the Program

The purpose of this summative program evaluation was to determine if a rich media implementation program was meeting program objectives. The forprofit organization, which is located in Texas but sells products online across the entire United States, is dedicated to finding ways to generate more profit by using rich media to enhance the display of products in their e-store product listings. Participants included the e-retail marketing manager and organizational leadership. The results of this program evaluation could imply that the organization's rich media implementation program can affect positive social change, including the potential for increased consumer trust in e-retail, as a result of consumers who are more informed and have experienced a higher quality online shopping experience. This increased trust could contribute to the social behavioral shift from traditional brick-and-mortar retail shopping to more convenient e-retail shopping practices.

Goals and Objectives

The general goal of the organizational leaders and investors was to increase the organization's revenue and profit (personal communication, January 17, 2018). To help achieve this goal, the organization's leaders identified specific goals for the rich media implementation program, which were to (a) increase estore product sales using rich media, (b) cost-effectively create and maintain rich

media to promote profitability, and (c) identify product categories/vertical markets in their portfolio that have financially responded well to the rich media implementation program (personal communication, January 17, 2018). The key stakeholders of this program evaluation included organizational leaders, e-store customers, and investors. Also, e-store customers incidentally had a stake because they are the beneficiary of the higher quality online shopping experience produced when rich media is used. Two conference call meetings were conducted in January of 2018 with the CEO, CIO, and e-retail marketing manager to determine the program evaluation objectives. Figure 7 is a graphical depiction of a logic model compiled from the goals the stakeholders identified.

Overview of Findings

This summative program evaluation was performed to determine if a rich media implementation program was meeting program objectives. The primary objective of the program was to increase sales revenue and total profit. The findings of this study showed that sales revenue increased by 14.2% and total profit dollars increased by 8.8%. This confirmed that the rich media implementation program was meeting its objectives.

In addition to determining that using rich media increases sales revenue and profit, the organization wanted to know if there were increases in costs associated with implementing and maintaining a rich media implementation program (these costs are included in the 8.8% profit calculation referenced above). Annual management costs in the subject product categories increased by

\$136,708 or 12.8% in 2017. Annual server costs increased by \$2,475 or 2.7% in 2017. Total production and use cost for a single 3-D image in 2017 was \$993.29. Total production and use cost for a single product video in 2017 was \$2,067.54. Annual customer retention in the subject product categories increased by an additional 17 repeat customers or 7.4% in 2017.

Presentation of the Findings (Quantitative)

In this subsection, I will display the data collected and present the findings of this study in detail. I will show the descriptive statistics performed and will also discuss relevant research assumptions. The Statistical Package for the Social Sciences (SPSS) was the software used to perform the t tests in this study. The results from the t tests answer the research questions the subject organization was seeking to answer.

Profit Changes

A repeated samples t test was conducted to compare the average weekly profit margins for the subject product categories before and after the implementation of the rich media implementation program. Table 6 below contains the weekly profit margin data for all 52 weeks of 2016 and 2017 in the subject product categories. This data indicated using rich media in e-store product listings increased annual sales revenue by 14.2% and total profit dollars by 8.8%; however, the results of the weekly profit comparison between 2016 and 2017 were not statistically significant, t(52) = .768, p = .446 (two-tailed), r = -.190, in profit generated for 2016 (M = 5164, SD = 1247) and 2017 (M = 5665,

SD=4296). The effect size, measured by d=M/SD, was 0.11. The magnitude of differences in means was 500.3 with a 95% confidence interval of -807 to 1808. The statistics indicate that the annual profit in subject product categories increased by \$26,013 in 2017. Table 7 depicts the descriptive statistics of the variables. Figure 8 depicts a boxplot comparing the weekly means and confirms no normality violations.

Table 6

Profit Difference in Dollars Between 2016 and 2017 for Subject Product
Categories

Week	2016 Total Revenue	2016 Server Costs (non- labor)	2016 Manage- ment Costs	2016 Wholesale Product & Ship costs	2016 Profit	2017 Total Revenue	2017 Server Costs (non- labor)	2017 Manage- ment Costs	2017 Wholesale Product & Ship costs	2017 Video Produc t-ion Costs (61 Videos)	2017 3-D Image Produc- tion Costs (131 Images)	2017 Profit
1	36,571	1,587	15,541	14,942	4,501	44,436	1,640	16,966	12,993	1,658	521	10,658
2	32,854	1,402	13,496	12,426	5,530	39,468	1,435	14,937	13,972	1,401	510	7,213
3 4	32,921	1,422	14,268 12,743	11,648	5,583	36,290	1,431	16,724	12,036	1,393 945	366 357	4,340
5	30,558 33,859	1,322 1,365	14,170	11,870 13,410	4,623 4,914	35,871 35,526	1,366 1,420	17,601 20,569	13,728 15,668	9 4 5 1,398	541	1,874 (4,070)
6	35,213	1,552	15,381	12,795	5,485	41,201	1,596	20,309	16,524	1,269	358	1,239
7	36,442	1,742	17,052	13,061	4,587	46,021	1,779	21,788	19,274	1,796	663	721
8	39,502	1,887	17,417	15,557	4,641	49,805	1,934	19,597	17,503	1,579	452	8,740
9	41,269	1,749	17,870	15,851	5,799	44,979	1,774	18,870	16,519	1,286	509	6,021
10	40,780	1,698	18,749	16,118	4,215	47,993	1,743	18,143	16,034	1,325	396	10,352
11	39,744	1,661	17,914	15,358	4,811	45,644	1,708	22,478	16,123	1,703	435	3,197
12	39,835	1,680	17,108	16,327	4,720	42,863	1,744	22,046	18,379	1,567	352	(1,225)
13 14	40,525 43,193	1,744 2,037	19,826	15,258 15,799	3,697 5,096	50,846 51,641	1,780 2,122	21,220 20,783	17,918 17,224	1,504	396 673	8,028 8,972
15	43,193	1,893	20,261 19,614	16,297	3,930	48,397	1,916	20,783	16,589	1,867 1,432	311	6,698
16	40,618	1,676	17,300	16,975	4,667	45,746	1,685	23,006	18,352	1,250	467	986
17	42,665	1,828	20,112	16,121	4,604	52,562	1,912	21,663	17,759	1,823	713	8,692
18	43,060	1,905	19,067	16,658	5,430	50,712	1,971	21,739	17,277	1,586	380	7,759
19	41,464	1,797	18,504	16,089	5,074	46,056	1,827	18,885	16,406	1,266	480	7,192
20	39,714	1,805	18,635	15,078	4,196	46,967	1,865	21,993	18,110	1,332	526	3,141
21	40,604	1,638	18,207	15,055	5,704	49,182	1,714	17,721	17,769	1,232	432	10,314
22	41,129	1,949	18,633	14,405	6,142	50,469	1,989	21,447	15,184	1,394	353	10,102
23 24	38,360	1,579	17,204	14,608	4,969	45,726	1,607	18,971 19,920	16,695 15,315	1,160 1,834	408	6,885
2 4 25	42,676 37,145	1,778 1,732	18,333 18,200	17,108 14,379	5,457 2,834	50,002 46,294	1,860 1,751	22,321	15,313	1,397	570 540	10,503 4,844
26	38,099	1,753	18,165	14,354	3,827	45,235	1,757	17,825	16,402	1,609	506	7,136
27	39,215	1,867	18,311	14,714	4,323	46,760	1,922	20,630	15,679	1,582	641	6,306
28	41,495	1,751	17,004	15,588	7,152	44,109	1,820	17,879	18,998	1,526	466	3,420
29	40,385	1,627	19,587	15,532	3,639	50,816	1,690	18,142	14,938	1,162	325	14,559
30	38,255	1,602	16,032	14,583	6,038	41,009	1,616	17,845	17,771	1,432	453	1,892
31	39,540	1,624	17,674	16,306	3,936	45,452	1,675	21,956	19,450	1,423	486	462
32	40,480	1,655	17,132	16,801	4,892	50,201	1,736	17,209	17,652	1,460	328	11,816
33 34	42,161 35,923	1,709 1,598	18,031 16,409	14,806 14,532	7,615 3,384	46,305 41,441	1,780 1,607	15,974 20,012	14,240 14,124	1,700 1,412	591 376	12,020 3,910
35	37,642	1,581	15,508	14,143	6,410	40,909	1,595	18,141	15,615	1,237	488	3,833
36	39,835	1,839	17,035	14,081	6,880	46,901	1,903	20,429	15,349	1,610	521	7,089
37	39,791	1,642	16,979	16,118	5,052	42,537	1,646	22,072	18,454	1,630	366	(1,631)
38	42,059	1,854	17,564	16,504	6,137	49,695	1,890	21,359	16,456	1,346	388	8,256
39	39,864	1,616	18,478	14,883	4,887	47,766	1,618	22,548	16,594	1,656	367	4,983
40	40,916	1,644	17,921	15,910	5,441	47,853	1,708	20,592	16,826	1,394	379	6,954
41	39,845	1,634	18,636	14,344	5,231	46,904	1,694	19,472	18,091	1,566	409	5,672
42 43	39,787 39,886	1,593 1,665	17,851 16,825	15,358 14,376	4,985 7,020	50,249 41,807	1,667 1,697	18,359 22,576	16,274 17,633	1,714 1,331	412 288	11,823 (1,718)
43 44	39,886 42,692	1,005	10,825	16,567	6,832	48,468	1,810	20,856	18,849	1,331	288 334	5,296
45	43,289	1,748	19,087	15,435	7,019	51,106	1,832	19,542	18,934	1,864	607	8,327
46	43,724	1,775	19,542	17,852	4,555	49,191	1,782	22,866	18,686	1,359	456	4,042
47	44,329	1,899	18,251	15,641	8,538	49,065	1,967	23,248	19,691	1,538	376	2,245
48	44,827	2,086	21,846	18,488	2,407	55,593	2,173	22,137	17,841	1,777	575	11,090
49	45,743	1,968	19,005	18,249	6,521	50,324	2,027	28,797	20,503	1,682	583	(3,268)
50	46,300	1,902	19,244	18,622	6,532	53,806	1,925	24,496	22,105	1,894	670	2,716
51	48,305	2,355	24,436	18,621	2,893	60,891	2,453	25,517	19,682	1,691	417	11,131
52	46,752	1,932	20,384	19,252	5,184	52,172	2,009	25,264	19,557	1,838	489	3,015
	2,093,574	90,093	930,089	804,853	268,539	2,441,262	92,568	1,066,797	885,186	78,153	24,006	294,552

Table 7

Descriptive Statistics for Profit Generated by 52-week Year

	2016 Cos	t in Dollars	2017 Cost in Dollars		
Variable	M	SD	M	SD	
Weekly Management Cost	5,164	1,247	5,665	4,297	

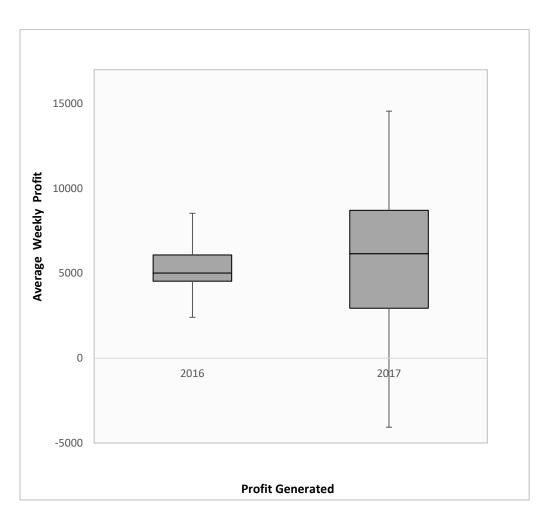


Figure 8. Boxplot depicting profit generated by 52-week year.

Management Cost Changes

A repeated samples t test was conducted to compare the average weekly management costs for the subject product categories before and after the implementation of the rich media implementation program. Table 6 above contains the weekly management cost data for all 52 weeks of 2016 and 2017 in the subject product categories. This data indicated there was a significant positive correlation (r = .54) in weekly management costs over the course of a 52 week period, t(52) = 8.37, p =.001 (two-tailed), in management cost for 2016 (M = 17886, SD = 1980) and 2017 (M = 20515, SD = 2605). The effect size, measured by d = M/SD, was 1.16. The magnitude of differences in means was 2629 with a 95% confidence interval of 1998 to 3260. The statistics indicate that the annual management costs in subject product categories increased by \$136,708 in 2017. Table 8 depicts the descriptive statistics of the variables. Figure 9 depicts a boxplot comparing the weekly means and confirms no normality violations.

Table 8

Descriptive Statistics for Management Costs by 52-week Year

	2016 Cos	<u>t in Dollars</u>	2017 Cost in Dollars		
Variable	M	SD	M	SD	
Weekly Management Cost	17,866	1,980	20,515	2,605	

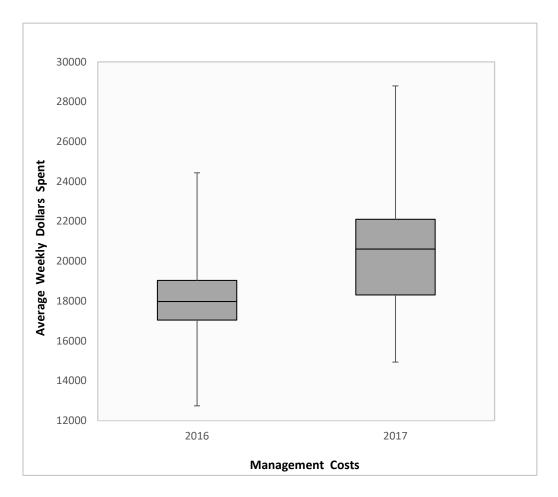


Figure 9. Boxplot depicting management costs by 52-week year.

Server Cost Changes

A repeated samples t test was conducted to compare the average weekly server costs before and after the implementation of the rich media implementation program. Table 6 above contains the weekly server cost data for all 52 weeks of 2016 and 2017 for the subject organization. This data indicated there was a significant positive correlation (r = .99) in weekly server costs over the course of a 52 week period, t(52) = 13.12, p =.001 (two-tailed), in server cost for 2016 (M = 1733, SD = 183) and 2017 (M = 1780, SD = 195). The effect size,

measured by d = M/SD, was 1.82. The magnitude of differences in means was 47.6 with a 95% confidence interval of 40.3 to 54.9. The statistics indicate that the annual server costs increased by \$2,475 in 2017. Table 9 depicts the descriptive statistics of the variables. Figure 10 depicts a boxplot comparing the weekly means and confirms no normality violations.

Table 9

Descriptive Statistics for Server Costs by 52-week Year

	2016 Cos	t in Dollars	2017 Cost in Dollars		
Variable	M	SD	M	SD	
Weekly Management Cost	1,733	183	1,780	195	

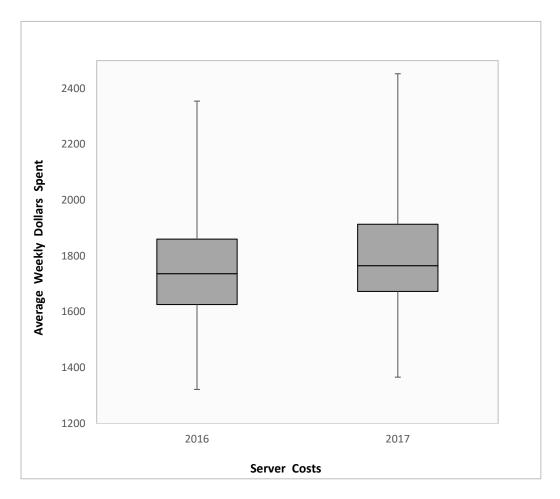


Figure 10. Boxplot depicting server costs by 52-week year.

Production and Use Cost of a 3-D Product Image

A mean analysis was conducted from data comprised of the production and 3-D image usage costs for 52 weeks of 2017 in the subject product categories. As displayed in Table 6 above, the total 3-D image production cost was \$24,006 in 2017. The company produced 116 3-D images in 2017. The average production cost per 3-D image was $$24,066 \div 116$ images = \$206.95. The total increase in server costs from 2016 to 2017 is $($92,568 - $90,093) \div 177$ total images and videos produced = \$13.98 per 3-D image. The total increase in

management costs from 2016 to 2017 was (\$1,066,797 - \$930,089) ÷ 177 total images and videos produced = \$772.36 per video or image. The summation of these costs to produce and use a single 3-D image in 2017 is \$206.95 production cost + \$13.98 server cost + \$772.36 management cost = \$993.29 total production and use cost. This total cost indicates that profit for an individual product using a 3-D image must eclipse \$993.29 per year to offset the use of a 3-D image.

Production and Use Cost of a Product Video

A mean analysis was conducted from data comprised of the production and video usage costs for 52 weeks of 2017 in the subject product categories. As displayed in Table 6 above, the total video production cost was \$78,153 in 2017. The company produced 61 product videos in 2017. The average production cost per video is $$78,153 \div 61$ videos = $1,281.20$. The total increase in server costs from 2016 to 2017 was (\$92,568 - \$90,093) $\div 177$ total images and videos produced = \$13.98 per video. The total increase in management costs from 2016 to 2017 was (\$1,066,797 - \$930,089) $\div 177$ total images and videos produced = \$772.36 per video or image. The summation of these costs to produce and use a single video in 2017 was \$1,281.20 production cost \$13.98 server cost \$1,281.20 production and use cost. This total cost indicates that profit for an individual product using a product video must eclipse \$2,067.54 per year to offset the use of a product video.

Customer Retention Changes

A repeated samples t test was conducted to compare the average weekly customer retention measured by return customers before and after the implementation of the rich media implementation program. Table 10 below contains the weekly customer retention data for all 52 weeks of 2016 and 2017 for the subject organization. This data indicated customer retention increased by 7.4% annually after implementing the rich media implementation program; however, the results of a weekly customer retention comparison between 2016 and 2017 were not statistically significant, t(52) = 2.002, p = .051, r = .772, in customer retention for 2016 (M = 4.21, SD = 1.05) and 2017 (M = 4.44, SD = 1.30). The effect size, measured by d = M/SD, was .277. The magnitude of differences in means was .23 with a 95% confidence interval of -.0006 to .4622. The statistics indicate that the annual customer retention increased by an additional 17 repeat customers in 2017. Table 11 depicts the descriptive statistics of the variables. Figure 11 depicts a boxplot comparing the weekly means and confirms no normality violations.

Table 10 ${\it Data for Customer Retention by 52-week Year}$

Week	2016 Repeat	2017 Repeat
	Customer Transactions	Customer Transactions
1	5	5
2 3	4	4
3	4	3
4	2	2
5	4	3
6	4	4
7	4	4
8	5	5
9	5	4
10	3	2
11	5	4
12	5	5
13	4	4
14	5	5
15	4	4
16	5	6
17	5	5
18	5	5
19	5	4
20	5	5
21	5	6
22	2	3
23	3	4
24	3	3
25	2 3	1
26	3	3
27	2	4
28	4	4
29	4	5
30	3	4
31	5	5
32	5	6
33	3	4
34	4	4
35	6	7
36	4	5
37	5	4
38	5	5
39	4	6
40	5	5
41	2 5	5 3 5
42	5	5
43	3	2
44	5	7
45	5	4
46	4	5
47	5	6
48	5	6
49	4	4
50	5	5
51	6	7
52	5	6

Table 11

Descriptive Statistics for Customer Retention by 52-week Year

	2016 Cost in Dollars		2017 Cost in Dollars	
Variable	M	SD	M	SD
Weekly Management Cost	4.21	1.054	4.44	1.305

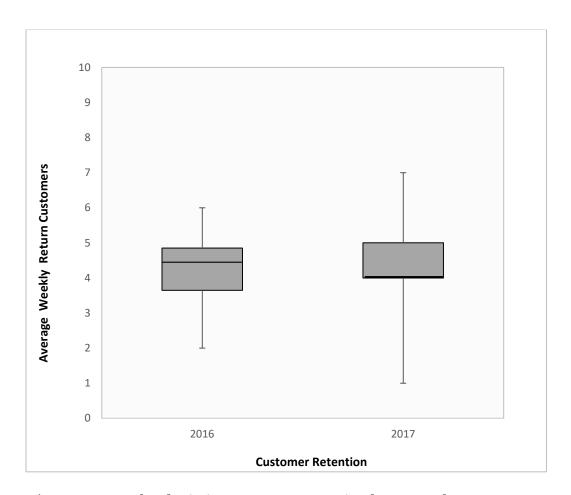


Figure 11. Boxplot depicting customer retention by 52-week year.

Presentation of the Findings (Qualitative)

The overarching premise of this summative program evaluation was to determine if a rich media implementation program was meeting program

objectives. To understand why it was or was not meeting objectives, I needed to know why the organization chose the product categories they included in their rich media implementation program. To find this information, I asked two interview questions. First, how did the firm decide which product categories should be included in the rich media implementation program? Second, is there any other information you would like to provide regarding the rich media implementation program? The responses from 3 participants yield one emergent theme.

Emergent Themes

For e-stores to use rich media to increase sales, producing and maintaining the rich media must be cost-effective (Yoo, 2010). The participants in this study agreed and all indicated that they chose the products to include based on their retail price. All participants agreed that the organization's executive level only considered products with a retail cost over \$25. Participant 1 (P1) stated that, "during an executive level think-tank meeting, it was agreed that items over \$25 per unit would allow for more profit per sale and a quicker recovery of rich media implementation costs." Participant 3 (P3) stated that, "many of the executive managers felt products under \$25 wouldn't produce enough profit fast enough to recover the rich media production costs." These statements indicate that implementation over a minimum price level was done to help ensure video and image production costs were recovered through the fewest possible product sales.

Participants also indicated that the ease of producing the rich media was a secondary factor. P1, P2, and P3 all indicated that the physical size of the product needed to be small and light enough to be handled by one individual without mechanical assistance. P2 stated that, "Product size and weight were taken into account when selecting products to try in our program. Products needed to be small enough and light enough to be carried and handled by one individual. If a product was too big and needed the assistance of machinery like a forklift to move it, then the video and image production costs would go up." P3 stated that, "Product size and movability were factors we contemplated when choosing products to include. Items too heavy or too large for one person to carry were eliminated as prospects. The cost of video production would be too great." These statements indicate that size and weight restrictions were included to help ensure that rich media production costs were limited. All participants agreed that one person needed to be able to handle the product by hand to be considered for inclusion in their program. This product size and weight restriction aligns with Carlsson and Chehimi's (2011) research where small and lightweight clothing product listings were the subject to rich media implementation. Table 12 below provides a visual description of the determining factors of how the product categories were chosen.

Table 12

Determining How Product Categories were Chosen

Thematic Categories	No. of participants to offer this perception	% of participants to offer this perception
Retail cost of product > \$25	3	100%
Ease of producing media	3	100%

Recommendations for Action

The purpose of this summative program evaluation was to determine if a rich media implementation program is meeting program objectives. The results of this study show that it is meeting program objectives. Sales revenue in the subject product categories increased by 14.2% and total profit increased by 8.8%. Though the profit per unit is less because of the costs associated with implementing and maintaining rich media, the total profit generated still increased from \$268,539 to \$294,552. This increase is the result of increased sales/market share. With the ultimate goal of the subject organization being to increase total annual profit, an 8.8% increase in total profit indicates the organization should continue to use rich media in their e-store product listings.

Secondly, customer retention was measured in the subject product categories. The findings indicate a 7.4% annual increase in customer retention in 2017. These findings also support that the subject organization should continue their rich media implementation program. Sales revenue, total profit, and customer retention have all increased as a result of the rich media implementation program.

Communication Plan

The results of this study will be emailed to the CEO and participating upper managers in the subject organization. A conference call with these same organization managers will follow where I will provide a verbal presentation of the results. During the presentation, I will answer questions and provide a detailed explanation of results. Additionally, I will ask the managers of the subject organization for potential future related research topics that align with this research. Lastly, if permission is given from the subject organization, I will submit a redacted copy of this study for publication in the ProQuest database and distribute at relevant national conferences to provide other researchers with the results.

Implications for Positive Social Change

This evaluation of a rich media implementation program contributed to the effective practice of business by identifying e-store product presentation strategies to improve online sales using rich media. Appealing to consumers' desires and needs is a driver of retail sales, and ultimately profitability (Carlsson & Chehimi, 2011). Very little prior research existed on e-store product presentation utilizing rich media and this evaluation contributed and expanded this pool of information.

This program evaluation has unique contributions to positive social change by increasing consumer trust in convenient, e-retail shopping practices and reducing consumer dependency on inefficient shopping practices at

traditional brick-and-mortar stores. Consumers with more detailed product information can make more informed purchasing decisions resulting in a reduced number of consumer related product returns and a higher quality online shopping experience (Walsh, Albrecht, Kunz, & Hofacker, 2016). A higher quality online shopping experience enhances consumer trust and can contribute to the trending societal shift of purchasing products through online means. This purchasing through online means allows consumers the ability to save time and transportation costs associated with shopping at traditional brick-and-mortar stores.

Skills and Competencies

Over the past 6 years, I researched rich media implementation in e-store product listings. I performed an exhaustive literature review to explore all relevant research that I could find on this topic. The summation of the literature I reviewed can be found in the *Literature Review* section above. Additionally, I have formal training in performing research through the completion of my MBA and DBA coursework at Walden University. I utilized this training to develop and conduct this program evaluation.

Prior to completing this study, I worked in various upper management roles. I was a Division Manager, Area Manager, CFO, Vice President, and CEO. I previously owned a software as a service firm that specialized in digital document and media management for State and County fairs. My practical experience has

given me the technical knowledge to understand and conduct this program evaluation.

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Appendix A: Interview Protocol and Questions

- 1. Introduce self to participant(s).
- 2. Discuss consent form, go over contents, answer questions and/or concerns of participant(s).
- 3. Turn on recording device.
- 4. Follow procedure to introduce participant(s) with pseudonym/coded identification; note the date and time.
- 5. Begin interview with Question 1; follow through to final question.
- 6. Follow up with additional questions.
- 7. End interview sequence; discuss member-checking with participant(s).
- 8. Thank the participant(s) for their part in the study. Reiterate contact numbers for follow up questions and concerns from participants.
- 9. End protocol.