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VIRTUAL AND HYBRID MEETINGS: A THREE GENERATIONAL PERSPECTIVE

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DEDICATION

I dedicate my dissertation work to my family. A very special thanks to my husband, Greg, who has supported me throughout every step of the process offering words of encouragement and ensuring I had the time necessary to complete this challenge. Thanks to my lovely daughters, Millie and Lennae, for their patience and understanding – this is for you. Thanks to my sister, Cathy, who has been my constant cheerleader and friend; and thanks to my brothers and their families for their support and understanding throughout this process. Thanks also to my friends who have been supportive and encouraging all along the way.

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ABSTRACT

The purpose of this dissertation is to provide a focused research stream with regard to virtual and hybrid meetings from a generational perspective. By utilizing a meta-analysis research methodology, an applied research approach, and a theoretical research approach, this three-article manuscript-style dissertation addresses numerous topics pertinent to both academics and industry professionals. The state of current literature pertaining to virtual and hybrid meetings is assessed and gaps are identified, including the need for further research from a generational perspective.

Current best practices, opportunities and barriers for planning and managing virtual and hybrid meetings for Baby Boomers, Generation X, and Generation Y are investigated and identified. The Technology Acceptance Model (TAM) and the influence of generational formative referents, the basis for the Generational Cohort Theory (GCT), are tested with regard to generational cohort's technology use within virtual and hybrid meetings. All three research studies included within this dissertation were submitted to tier one journals within hospitality, and the data resulting from this research has been presented on both national and international levels. The studies are designed to build upon each other and add to the limited foundation of knowledge within this area of hospitality studies.

Table of Contents

List of Tables

LIST OF FIGURES

List of Abbreviations

F2F ..... Face-to-face meetings

GCT..... Generational Cohort Theory

MEEC ..... Meetings, Expositions, Events and Conventions

MPI ..... Meeting Professionals International

PCMA ..... Professional Conventional Management Association

PLS..... Partial Least Squares

SEM ..... Structural Equation Modeling

TAM..... Technology Acceptance Model

CHAPTER 1

INTRODUCTION

Over the last decade, new trends and technological innovations have been brought to the forefront of the meetings industry. Virtual and hybrid meetings have been introduced to the meetings industry as new meeting genres in which these rapid and continuous advancements within technology have been embraced and incorporated for the benefit of planners and attendees. In order for meeting professionals to remain current with these advancements, they have had to raise the bar in terms of planning and executing meetings by including the most current technological options for all involved (Smith & Kline, 2010).

Although face-to-face (F2F) meetings are still options, virtual and hybrid meetings are quickly becoming more commonplace and hybrid meetings have even been acknowledged as the future of the meetings industry (Fryatt, Janssen, John, Mora, & Smith, 2012). While the meeting industry is advancing through the use of technology, there exists a need for current and immediate information pertaining to these meeting genres, and there are currently few academic articles addressing virtual and hybrid meetings within hospitality and tourism studies. As noted by Pearlman and Gates (2010), industry articles have been much quicker to address technology use within meetings through industry publications, Web sites and consultant research.

The Meetings, Expositions, Events and Conventions (MEEC) industry (Fenich, 2012) has welcomed these new meeting genres, virtual and hybrid, which both include

the use of collaborative technology. While technology is included within traditional F2F meetings, social or collaborative technology used to link F2F attendees to those in remote locations is not a component of F2F meetings.

In addition to investigating topics pertaining to virtual and hybrid meetings, the topic of generational studies has become a recent research interest within the meetings industry over the past few years. Both industry and academic research continue to address this area with regard to meeting perceptions, attitudes, communication preferences and information communication technologies (Severt, Fjelstul, & Breiter, 2013). As each generation's needs and wants change with the advancement of technology, this area has been suggested as an area for continued and evolving research (Fenich, Scott-Halsell, & Hashimoto, 2011).

To address virtual and hybrid meetings from a generational perspective, therefore, the first phase of this dissertation was to utilize a meta-analysis research methodology to determine the current state of literature surrounding these meeting genres and to identify literature gaps. The second phase was to conduct applied research to determine the current perceptions of meeting professionals with regard to technology use by each generation in the workforce. The third phase included conducting theoretical research to better understand the influence of generational referents pertaining to technology use within virtual and hybrid meetings.

1.1 Research Questions

This manuscript-style dissertation, presented through three separate phases and research studies, is therefore designed as a focused research stream addressing the following research questions:

Utilizing research methodology:

1. What is the current state of literature for virtual and hybrid meetings both inside and outside of hospitality and tourism studies?
2. What are the current and necessary areas identified for future research?

From an applied research perspective:

3. What are the best practices, opportunities and barriers for planning and managing virtual and hybrid meetings for Baby Boomers, Generation X, and Generation Y?

From a theoretical research perspective:

4. Do generational formative referents, the basis for the Generational Cohort Theory (GCT), influence meeting attendees' adoption and technology use within virtual and hybrid meetings?

1.2 Definitions

For reader convenience, numerous terms used within this dissertation are defined below:

- Baby Boomer Generation – includes individuals born between 1946–1964.
- Delphi Method – research method used for obtaining common consent through participation in rounds to amass input from an expert panel on a particular subject of interest (Yousuf, 2007).
- F2F meeting - "an event where the primary activity of the participants is to attend educational sessions, participate in discussions, social functions, or attend other organized events" (Conventions Industry Council, 2011). Operational technology, such as presentation slideshows, whiteboards and projectors are often utilized during F2F meetings (TechRepublic, 2012).

- Generational Cohort Theory (GCT) –individuals born within a specified date range who have experienced similar events and circumstances throughout their lives, and experienced significant, emotional and defining happenings during their formative years, share attitudes, values, and perceptions which make them unique from other generational cohorts (Strauss & Howe, 1991).
- Generational Formative Referents - the actual experiences shared by a generational cohort during their formative years which create the like attitudes, values, and perceptions which tend to remain stable throughout one's life (Brosdahl & Carpenter, 2011; Meredith, Schewe, & Karlovich, 2007; Codrington, 2011).
- Generation X - includes individuals born between 1965–1978.
- Generation Y – includes individuals born between 1979–2000.
- Hybrid meeting - "involves a mixture of physical events with elements of a virtual event usually running simultaneously and with overlapping content and interactive elements" (Doyle, 2013, p. 1).
- Technology Acceptance Model (TAM) - stemming from the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), this theoretical model attempts to identify "the determinants of computer acceptance which is general, capable of explaining user behavior across a broad range of end-user computing technologies and user populations, while at the same time trying to be parsimonious and theoretically justified" (Davis, Bagozzi, & Warshaw, 1989, p. 985).

- Virtual meeting - "digital events, meeting and learning technologies including: Webcasting (streaming media); virtual environments (2D and 3D) such as virtual events, virtual trade shows, conferences, campuses, learning environments; and perpetual (365 days per year) business environments" (PCMA, UMB Studios, & VEI, 2011, p. 3).

1.3 Dissertation Articles

The first article included within this research, *Virtual and Hybrid Meetings: A Qualitative Meta-analysis*, provides a qualitative meta-analysis research methodology which concludes while the amount of literature on virtual and hybrid meetings appears to be small within the studies of hospitality and tourism, applicable literature is available with regard to these genres of meetings within other disciplines, such as education and management. Through an analysis of 67 articles published between the ten-year period of 2002 - 2012, results indicated only 15 of the articles published were located within hospitality and tourism journals. In addition, the literature stream developed into the following five categories:

1) Perceptions and Attitudes Toward Virtual and Hybrid Meetings;
2) Comparison of Virtual and/or Hybrid Meetings with F2F Meetings;
3) Management and Design of Virtual and/or Hybrid Meetings;
4) Uses of Technology within Virtual and Hybrid Meetings; and
5) Specific Audiences for Virtual and Hybrid Meetings, and Examination of Virtual and Hybrid Learning Environments.

While technology continues to advance the meetings industry, it is imperative the academic literature progress within hospitality and tourism studies to add to this body of knowledge.

The meta-analysis identified several areas for future research. These included the need to better understand what planners are currently utilizing within their virtual and hybrid meetings to attract specific audiences. While there were a number of research studies addressing the differences of technology adaptation with regard to age of participants, few articles analyzed the adaptation process by generation. This area can be further expanded as generational cohort stereotypes are noted to be at various stages with regard to technology use and ability. Once generational differences are identified and confirmed with regard to virtual and hybrid meeting engagement, planners can more confidently focus in on generational values to better market to and accommodate these audiences within their meetings and create optimal engagement opportunities for all meeting attendees.

The second article, *Virtual and Hybrid Meetings: Accommodating Baby Boomers, Generation X and Generation Y*, stems from the meta-analysis' findings for future research opportunities. Through application of the Generational Cohort Theory, a modified Delphi method was employed to ultimately determine common consent on best practices, opportunities and barriers for virtual and hybrid meetings as perceived by meeting professionals. Specifically, recommendations were made based on how these professionals accommodate the generations currently in the workforce who are attending virtual and hybrid meetings. These generations include the three largest populations within today's workforce: Baby Boomers, Generation X, and Generation Y (Fenich,

Scott-Halsell, & Ogbeide, 2011). Underpinning the GCT, this study engaged meeting planners to assess the use of technology from a generational perspective.

Jones (2004) noted the necessity for hospitality academics to include real world – engagement with industry practitioners within their research since hospitality is such an industry-specific field. Within this study, applied research was conducted first as it is used to confirm the need for theoretical research. Consistent results in applied studies can be used to develop, modify or revise a theory accordingly (Van Scotter & Culligan, 2003). The second article confirmed meeting professionals acknowledge a difference in the use of technology within virtual and hybrid meetings amongst generational cohorts, thus supporting the GCT from an applied research approach.

The third article included within this dissertation, *Technology Use within Meetings: Exploring the Generational Perspective through Partial Least Squares,* examined generational formative referents as factors which influence meeting attendees' adoption and technology use within virtual and hybrid meetings, and tests the applicability of the Technology Acceptance Model (TAM). By utilizing the GCT and TAM, a more theoretical approach was used to test and validate the industry perceptions noted in the previous article. Supporting the GCT by including generational formative referents, this is the first research initiative within hospitality studies to investigate and test a theoretical model on generational technology use within meetings. This study investigated how attendees' experiences from their respective formative years (i.e., generational formative referents), the basis of the GCT, influence the TAM model constructs.

All three studies included within this dissertation not only add to the body of knowledge pertaining to virtual and hybrid meetings, but due to the small amount of literature currently available within hospitality studies, these studies also solidify the limited foundation of knowledge currently available. As technology advances and meetings evolve, there is a current and immediate need for information pertaining to virtual and hybrid meetings.

This research stream offers current information to both academics and practitioners to utilize in their respective fields. Academics can utilize this information from the perspective of furthering their research, or to enhance their teaching agenda's by including this information in the classroom. Practitioners can utilize this information to assist with marketing initiatives and to enhance attendee engagement in addition to incorporating these technological advancements within their meetings.

This research should evolve due to the ever-changing demands of meeting attendees and the increased responsibilities of meeting planners. Technology is rapidly moving forward and academic studies need to progress with these advancements to keep the body of knowledge current and applicable. By including a meta-analysis research methodology, applied research and theoretical research, the three manuscripts included within this dissertation offer an overall assessment of the current state of technology use within meetings from a generational perspective.

CHAPTER 2

LITERATURE REVIEW

Highlighting the significance of the meetings industry to the United States (U.S.) economy, 225 million people attended 1.83 million meetings within the U.S. in 2012. This added more than $115 billion to the U.S gross domestic product, and the total economic output of these meetings was $770.4 billion. In addition, $88 billion in federal, state and local taxes were generated as a result (PricewaterhouseCoopers LLP., 2014).

Meetings and conventions are one of the largest and fastest growing segments of tourism. Due to advancing technology, meetings are currently evolving which is necessary to maintain their competitive edge (Kim & Park, 2009). The planning and execution of meetings now requires meeting professionals to consider new and innovative communication, and information technologies, to be included within the meeting format (Chudoba, Watson-Manheim, Crowston, & Nanyang, 2011).

Within this manuscript-style dissertation, three separate research studies work together to create a focused research stream with regard to investigating technology use within virtual and hybrid meetings from a generational perspective. The literature review includes information pertaining to virtual and hybrid meetings, GCT, qualitative meta-analysis, Delphi method, TAM and PLS.

2.1 Virtual and Hybrid Meetings

Since the early 1990's, the meetings industry has increased academic attention within the study of meetings through focused research on this topic (Lee & Back, 2005) and since that time, various aspects of the conventions and meeting industry have been addressed. However, as virtual and hybrid meetings are fairly new to the meetings industry, researchers continue to have many opportunities to investigate within this area. The majority of meeting planners appear to agree the bulk of all future meetings will move to a hybrid format (Fryatt et al., 2012a). Recently, Meetings Professional International (MPI), conducted research on hybrid meetings. Fryatt et al. (2012a) conducted a study in which members of MPI were contacted through F2F and hybrid meetings. The findings indicated 70% of meeting planners agreed hybrid meetings were the future of the meetings industry, the majority of the planners, however, were not yet using a hybrid format.

While numerous industry publications appear in an EBSCO search for virtual and hybrid meetings from 2013 through 2014, the only academic publication appearing during this timeframe identifies best practices, opportunities and barriers for Generation Y (Sox, Kline, & Crews, 2014). This timeframe was searched specifically since the meta-analysis only includes articles from 2002 – 2012. This finding again highlights the need for immediate attention within this area from an academic perspective.

Sox et al. (2014) consulted an expert panel of meeting professionals to determine recommendations for best practices for virtual and hybrid meetings for Generation Y. The results for virtual meetings included offering shorter sessions to participants located elsewhere and providing technology which is easy to use; recommendations for

opportunities suggested including gamification and more interactive components; and recommendations for barriers included attendees preoccupation with technology, and suggested creating a perception of effectiveness. Hybrid meeting recommendations for best practices included adding social networking opportunities, and giving positive feedback to attendees; recommendations for opportunities included integrating interactive components and offering challenging and solvable games; and recommendations for barriers included creating the perception of fun and keeping material challenging.

Flowers and Gregson (2012) investigated decision-making factors in selecting virtual worlds for events. This qualitative study found four themes which influenced the decision-making process for selecting virtual worlds: the significance, role and influence of the champion; the comfort level of the participants regarding productivity in virtual settings; opportunity to replicate real-world environments for fun and interaction; and consideration of risk factors. The study concluded by stating research on virtual worlds is limited, but virtual worlds are viable options for supplementing real-world events. Additional practical and theoretical research on the use of virtual worlds in the meeting setting and on the acceptance of virtual worlds in the meeting setting was recommended.

Vandenberg and Reese (2011) found making attendees comfortable when engaging in virtual meetings is key to the success of the meeting. Comfort levels of participants tend to increase when proper training, guidelines and support are given to attendees. Pearlman and Gates (2010) explored virtual reality applications through Second Life. These visual, 3D applications simulate real-world situations. Pearlman and Gates (2010) investigated the awareness, acceptance and adoption of these applications and found the benefits of these applications to include augmented networking

opportunities, increased sponsorship opportunities and alternative communication options.

With regard to hybrid meetings, Rhoads (2010) concluded while F2F meetings enhance attendee satisfaction, hybrid meetings are the best meeting format blending the best components of F2F meetings with virtual meetings. As demand increases for virtual and hybrid meetings, planners must be prepared to continually raise the bar and incorporate the newest technology into these meeting formats. While the gap in literature is evident within hospitality studies, industry professionals have also expressed the need for immediate and further research on these new meeting genres (Fryatt et al., 2012a; PCMA, UBM Studios, & Virtual Edge Institute, 2011).

2.2 The Generational Cohort Theory

The Generational Cohort Theory (GCT) separates markets according to the date range in which one was born. Each specific date range (generation) has had similar experiences during their formative years which shape their attitudes, beliefs, and values (Tsui, 2001). First mentioned by Ryder in 1965, the GCT was later coined in 1977 by Inglehart. The GCT was popularized in the 1990's by Robert Putnam, and suggests life perspectives are influenced by experiences occurring within the formative years of one's life. These significant events which have influence within the formative years could include: wars (Noble & Schewe, 2003); the introduction of major new technologies; significant changes to family and/or work arrangements (Layard & Mincer, 1985); significant political events; noted changes in the socioeconomic conditions, and security issues (Egri & Ralston, 2004). Strauss and Howe (1991) also advocated the GCT in their book Generations: The History of America's Future, 1584 to 2069.

Unfortunately, there is a lack of theory development pertaining to the GCT which has hampered its progression (Gardiner, King, & Grace, 2013). Regardless, it continues to be utilized within research. Fisher and Crabtree (2009) reviewed the various areas of study in which the GCT has been utilized including marketing and sports (Bennett & Lachowetz, 2004); workforce productivity (Martin, 2005); consumer preferences (Carpenter & Moore, 2005); workforce management (Hill, 2002; Mujtabe & Thomas, 2005; Swearingen & Liberman, 2004); and understanding values and attitudes (Davis, 2004).

When considering a more universal perspective, it must be noted while different countries experience events at different times, there are events that have an impact around the world. A few examples beginning in the 1980's include Tiananmen Square, the Berlin Wall coming down, the banning of the Communist Party in Russia, and the invention of HTTP (World Wide Web) (Codrington, 2011). These kinds of events assist with applying the GCT when considering countries outside of the U.S. It should also be noted due to the advances in communication and technology, the value systems of younger cohorts are converging across the globe (Meredith et al., 2002).

Generational cohorts are defined as groups of people born within a specific date range, who have alike experiences and encounter significant (emotional) occurrences during their formative age (Strauss & Howe, 1991). These like experiences, also known as generational formative referents, tend to foster people to think in similar ways pertaining to their attitudes, beliefs and values (Brosdahl & Carpenter, 2011; Chen & Choi, 2008; Meredith, Schewe, & Karlovich, 2007). These values created during the formative years tend to stay relatively stable throughout a person's lifetime. These values

determine and influence how one interacts with their environment thereby offering cues for one's behavior (Codrington, 2011).

The exact ranges for each generation do vary amongst studies, although the ranges are very similar (Macky, Gardner, & Forsyth 2008). The GCT is also criticized because it is questionable for all individuals within a generational cohort to have experiences the same events in the same way (Giancola, 2006). Regardless of these criticisms, the GCT continues to be utilized within academic and industry literature.

Baby Boomers, born between 1946 and 1964, are known to be optimistic, politically conservative, active, competitive, and focused on accomplishments (Fenich, Scott-Halsell, & Hashimoto 2011; Fransden, 2009). This generation is also known to be materialistic, work-driven, and they place a high value on career success (Gentry, Griggs, Deal, Mondore, & Cox, 2011). They are less likely to be comfortable with technology, and still utilize E-mail and Internet. They are less comfortable with newer technological communication opportunities (Fenich et al., 2011). This postwar generation was introduced to grand visions as the nation re-energized. They participated in anti-war efforts and became the youngest politicians in history. Examples of their guiding values include: idealism, image, personal growth, team orientation, self-expression, youth, nostalgia, and health and wellness (Codrington, 2011).

Generation X, born between 1965 and 1978, accounts for 45 million people and is currently the smallest generation in number (DeMarco, 2007). They account for approximately 30% to 32% of employees currently working (DeMeuse, 2010). To date, Generation X is the most educated generation in the U.S. and boasts the highest employment percentage at 86% (Keene & Handrich, 2011). They tend to favor business

communication via the Web and E-mail. They are also technologically confident (Reisenwitz & Iyer, 2009).

When compared to other generations, Generation X includes the most effective managers in addition to some of the highest revenue generators. They tend to easily adapt to work situations, engage in productive problem-solving and team collaboration (Giang, 2013). According to extant literature, some of their defining values are global awareness, change, choice, techno-literacy, individualism, lifelong learning, informality, and self-reliance (Codrington, 2011).

Generation Y, born between 1979 and 2000 consists of 70 plus million people globally (Fenich, Scott-Halsell, & Hashimoto, 2011; Hewlett, Sherbin, & Sumberg, 2009). This generation has utilized technology during their entire lifetime and is known as the most technologically savvy of all of the generations currently in the workforce (Altes, 2009). They desire instant responses and immediate gratification (Perin, 2012). They are optimistic and desire to make a contribution to their world (Tulgan, 2002). Generation Y thrives on feedback (Reilly, 2012) and they demand technological advances within meetings they attend (Fenich, Scott-Halsell, & Hashimoto, 2011). It is necessary for meeting professionals to advance with this generation's meeting requirements (Fjelstul, Severt, & Breiter, 2012).

2.3 Qualitative Meta-Analysis

A meta-analysis is utilized to review and analyze the outcomes of extant literature related to the same topic (Hunter, Schmidt, & Jackson, 1982). Typically conducted as a quantitative procedure, a meta-analysis can also be conducted through qualitative means. This procedure adheres to the replicable procedures found when conducting a

quantitative meta-analysis. When conducting a qualitative meta-analysis, however, it is interpretive instead of aggregative (Paterson, Thorne, Canam, & Jillings, 2001).

While meta-analysis studies are usually quantitative, researchers have used qualitative research methods to perform similar research (Stall-Meadoes, 1998). Several researchers have proposed the idea of synthesizing both qualitative and quantitative data through qualitative means (Chen & Turner, 2000), however, previous meta-studies have acknowledged there is a need for studies which utilize a qualitative approach as the main analysis technique (Stepchenkova & Mills, 2010). As in any field of study, there becomes a need to summarize the existing research in order to produce a framework on which to build to further develop the field (Chen & Turner, 2000).

Due to the limited literature available in hospitality studies, the meta-analysis used within the first research article included within the dissertation, summarized the current state of literature within and outside of hospitality studies. This approach not only serves as a catalogue of literature, but also allows for an examination of existing literature so duplication can be avoided and research efforts can be more streamlined (Stepchenkova & Mills, 2010).

2.4 The Delphi Method

The Delphi method is a research tool used to develop common consent through rounds of information gathering to gain input from an expert panel within a specific area of expertise (Yousuf, 2007). This method (Delphi) is named for the Greek oracle at Delphi who was recognized for offering prophecies (Koontz & O'Donnel, 1976). During the 1950s, this technique was used by the military to obtain expert consensus on complex military issues (Yousuf, 2007). The Delphi method was created by Olaf Helmer and his

colleagues at the Rand Corporation, and was used as a military forecasting tool (Yousuf, 2007; Stitt-Gohdes & Crews, 2004). Since its introduction, the Delphi method has been successfully used within government, technology, education and business (Stitt-Gohdes & Crews, 2004).

The Delphi technique is an effective method therefore, for dealing with complex issues by utilizing a group communication process (Stitt-Gohdes & Crews, 2004). There are four recognized components within the Delphi technique including individual contributions and feedback on a specific subject; assessment of group findings; opportunity for the individuals to make revisions; and anonymity for individual responses among the participating panel members (Linstone & Turoff, 1975). The Delphi technique offers researchers an alternative to standard survey research. This method allows for an extended communication process amongst the panel of experts (Stitt-Gohdes & Crews, 2004).

While this technique is an acknowledged research method within the area of tourism, and is recognized as an effective tool, it has been criticized within extant literature (Donohoe & Needham, 2009). While many of the benefits of this technique are obvious (i.e. anonymity, expert judgment, common consent, etc.), the disadvantages should also be recognized. Examples of the disadvantages include the tool itself being sensitive to the study design(i.e. expertise and composition of panel; clarity of questions; survey administration and reporting), panel member's high attrition rates, and the definition of determining adequate consensus (Donohoe & Needham, 2009).

Due to the newness of virtual and hybrid meetings and the limited literature existing within hospitality, the Delphi method was used to gain information from an

expert panel of meeting professionals who would anonymously communicate through an extended communication process with current and pertinent information pertaining to the subject matter.

2.5 Technology Acceptance Model (TAM)

TAM is a behavior intention model and was first introduced by Davis in 1986. It is now one of the most cited theoretical frameworks today (Park, Lee, & Cheong, 2007). TAM stems from the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), and has been applied extensively within academic studies (Park, Lee, & Cheong, 2007). The model was founded in an effort to identify the determinants of computer acceptance so the model remains general and is useful in explaining user acceptance behavior throughout a range of computing technologies and identified populations. TAM uses the factors of perceived usefulness and perceived ease of use to predict user acceptance (of any technology). Davis (1986) defines perceived usefulness (U) as the degree to which a user believes his or her performance will be enhanced by using the technology. Perceived ease of use (EOU) is considered as the degree the user believes using the system will be effort free. Both U and EOU are perceptions anchored to the beliefs users have about a specific system and they have a significant impact on a user's attitude toward system use (A). Attitude (A) is defined as feelings of favorableness or unfavorableness pertaining to the system. Behavioral intentions (BI) are identified within the model as a function of A and U. BI also determines actual use.

Since its inception, it has been often utilized within empirical studies to explain whether users accept new information technology (Zhu, Lin, & Hsu, 2012). While the literature pertaining to TAM is extensive, there is significant use of the model used to

examine relationships between perceived usefulness, perceived ease of use and other technologies (e.g., Adams, Nelson, & Todd, 1992; Szajna, 1996); and its power to predict IT usage (Davis & Venkatesh, 1996; Taylor & Todd, 1995; Venkatesh, Morris, Davis, & Davis, 2003). Organizational factors influencing the TAM have also been examined (Kim, Jang, & Morrison, 2011).

2.6 Partial Least Squares

Partial Least Squares (PLS) Structural Equation Modeling (SEM) analysis is a causal modeling approach used to maximize explained variance of dependent latent constructs (Hair, Ringle, & Sarstedt, 2011). When utilizing SEM, there are two approaches commonly used to estimate relationships within the model; covariance-based (CB-SEM) and PLS-SEM (Hair et al., 2011). When choosing between the two, the researcher should consider the characteristics and objectives for each. Hair et al. (2011), noted the following guidelines for selecting the PLS method including: "the goal is identifying key "driver" constructs; the research is exploratory or an extension of an existing structural theory; formative constructs are part of the structural -model; the structural model is complex; the data are to some extent non-normal; the sample size is relatively low and/or CB-SEM requirements cannot be met (e.g. data distributional assumptions)" (p. 144). The indicators mentioned above are used to assess the model's fit (Hair, Hult, Ringle, & Sarstedt, 2014).

The PLS model contains the inner model (structural model), which represents the constructs, and the outer model (measurement model) which displays the relationships between the indicator variables and constructs. PLS, in contrast to Covariance-Based

Structural Equation Modeling (CB-SEM), makes no assumptions about the data, so it can accommodate non-normal distributions (Hair et al., 2014).

PLS-SEM studies have been included within top journals within marketing, strategic management and management information systems research, in addition to many other fields. It is seen as an evolving statistical approach and is considered a complimentary modeling technique to SEM (Hair et al., 2011).

2.7 Summary of Literature Review

This manuscript-style dissertation presents three research studies that work collectively to develop a focused research stream and add to the foundation of knowledge pertaining to technology use within virtual and hybrid meetings, specifically focusing on the generational perspective. The extant literature within the area of virtual and hybrid meetings is lacking and due to the rapid advancement of technology, there is an immediate need for research within this area. While the GCT is utilized within many areas of study, the theory itself lacks theoretical backing, therefore presenting a need in this area as well. The methods utilized are known and respected research methods and apply to each study accordingly. By employing research methodology, applied research and theoretical research, this topic is considered through a more thorough and comprehensive process than previously provided by extant research within the study of meetings.

CHAPTER 3

VIRTUAL AND HYBRID MEETINGS:

A QUALITATIVE META-ANALYSIS OF 2002 – 2012 RESEARCH[1]

3.1 ABSTRACT

This research presents an examination of literature written within hospitality and tourism studies and within other disciplines pertaining to virtual and hybrid meeting genres over a 10 year period (2002 – 2012). While 15 articles were found within hospitality and tourism journals, 67 articles were included within this review, with the majority published within refereed journals outside of hospitality and tourism. Articles were categorized by journal, year, methodology, and theme. The themes that emerged included: Perceptions and Attitudes Toward Virtual and Hybrid Meetings; Comparison of Virtual and/or Hybrid Meetings with Face-to-Face (F2F) Meetings; Management and Design of Virtual and/or Hybrid Meetings; Uses of Technology within Virtual and Hybrid Meetings; and Specific Audiences for Virtual and Hybrid Meetings. These articles have been accumulated to identify gaps in the literature and provide future research recommendations within hospitality and tourism to be addressed.

Keywords: hybrid; virtual; meeting; event; education, conference

[1] Sox, C. B., Kline, S. F., Crews, T. B., Strick, S. K., & Campbell, J. M. Submitted to *Journal of Hospitality and Tourism Research*, 2/24/14.

3.2 INTRODUCTION

The Meetings, Expositions, Events and Conventions (MEEC) industry significantly impacts local, state and national economies (Fenich, 2010; Lee & Back, 2005). The most recent Economic Significance of Meetings to the U.S. Economy study stated that in 2012, 1.83 million meetings were held in the U.S., attended by 225 million people, and adding more than $115 billion to the U.S gross domestic product. The total economic output of these meetings totaled $770.4 billion and generated $88 billion in federal, state and local taxes (PricewaterhouseCoopers LLP., 2014). This information highlights the importance of the MEEC industry on the economy.

As one of the largest and fastest growing segments of tourism, meetings and conventions are advancing and adapting technology to enhance their competitiveness (Kim & Park, 2009). Meeting are therefore changing quickly as new and innovative communication and information technologies are incorporated (Chudoba, Watson,-Manheim, Crowston, & Nanyang, 2011).

Face-to-face (F2F) meetings are still on the forefront, and virtual and hybrid meetings are quickly bringing innovative technology into the mix. Projected to increase to an $18.6 billion industry by 2015, the virtual world is greatly influencing the MEEC industry with hybrid meetings noted as the future of the meeting industry (Fryatt, Janssen, John, Mora, & Smith, 2012). Regardless, few academic studies have been conducted within this area of the meeting industry, particularly within hospitality and tourism (Pearlman & Gates, 2010).

Virtual and hybrid meetings are being seen as an enhancement to F2F meetings and are now being viewed as acceptable ways of doing business (Cain, 2011). In further

support of technological acceptance within meetings, the Professional Convention Management Association (PCMA) partnered with the Virtual Edge Institute (VEI) in 2011 to launch the first certification program for the Digital Event Strategist. This certification was created due to the need for expertise in this area and for creating a standard of practice within the industry (Virtual Edge Institute, 2011).

Meetings are defined as "events where the primary activity of the attendees is to attend educational sessions, participate in meetings/discussions, socialize, or attend other organized events" (Fenich, 2012, p. 323). Virtual meetings are defined through technology uses such as "digital events, meeting and learning technologies which include: Webcasting (streaming media), virtual environments (2D and 3D) such as virtual events, virtual trade shows, conferences, campuses, learning environments and perpetual (365 days per year) business environments" (PCMA, UMB Studios, & VEI, 2011, p. 3). A hybrid event "involves a mixture of physical events with elements of a virtual event usually running simultaneously and with overlapping content and interactive elements" (Virtual Edge Community, 2011, p.1).

While technology is evolving quickly, academic research is needed to fill the gaps within the literature surrounding the use of technology within meetings and events. This paper addresses the current literature published within peer-reviewed academic journals between 2002 and 2012 pertaining to virtual meetings, hybrid meetings, and the use of technology within meetings. While this manuscript is not specifically about online education, according to the industry accepted definition of meetings, learning environments are included. According to the definition of virtual meetings, online education is considered to be a component; therefore, applicable educational literature

included within this paper relates to virtual or hybrid meetings. The definition of online learning is, "the use of technology (software and hardware) to provide assistance to learners to enable them to achieve the set level of learning through continuity and interactions" (Crews, Wikinson, Hemby, McCannon, & Wiedmaier, 2006, p. 147). Pertaining to meetings, the "learners" could be seen as the attendees.

Both hospitality and tourism journals, as well as journals outside of tourism and hospitality were reviewed for this analysis. There is extant literature pertaining to virtual and hybrid meetings found outside of hospitality and tourism studies. As noted in this article, for example, virtual meetings are discussed in journals such as: *Academy of Management Learning & Education*; *American Journal of Business Education*; and *Accounting Education*.

As an emerging area of meeting research, it is important to have a foundation and understanding of the scholarly works published to date. To amass the expertise of virtual and hybrid meeting planners, a catalog and analysis of the academic articles published on these subjects has been accumulated to more specifically identify gaps in the literature and make appropriate recommendations for future research within hospitality and tourism studies

3.3 Methodology

3.3.1 Qualitative Analysis

A meta-analysis is utilized to review and analyze the outcomes of extant literature related to the same topic (Hunter, Schmidt, & Jackson, 1982). Typically conducted as a quantitative procedure, a meta-analysis can also be conducted through qualitative means. This procedure adheres to the replicable procedures found when conducting a

quantitative meta-analysis. When conducting a qualitative meta-analysis, however, it is interpretive instead of aggregative (Paterson, Thorne, Canam, & Jillings, 2001).

3.3.2 Data Collection

Articles on virtual and hybrid meetings published between January, 2002 and November, 2012 were collected and categorized. The integrated computer databases search included Tourism and Hospitality Complete; Academic Search Complete; Business Source Complete; Communications & Mass Media Complete; Communications Abstracts; Computer Sources; Education Full Text; Library, Literature and Information Science Full Text; and Library, Information Science & Technology Abstracts with Full Text. Search terms included the keywords: "virtual," "hybrid," "meeting," "event," "conference," "convention," "e-learning," and "blended learning," and their combinations (Stepchenkova & Mills, 2010).

The criteria applied during the search included consideration of only peer-reviewed publications (although there are mentions of industry publications within the articles themselves). Following the methods of Stepchenkova and Mills (2010), the criteria of editor and reader comments and book reviews were excluded. Research in journals outside of hospitality and tourism was also included to develop a wider spectrum of publications. Due to the inclusion of "virtual campuses" and "virtual learning environments" within the industry definition of virtual meetings, the search produced a large number of articles within the field of education with these keywords tagged in the database. Not all of these articles are included within this study; only those which pertain specifically to the set-up or specifics of "meetings" and/or "events." The researched articles are categorized according to best fit with regard to theme. If the article pertains

to more than one of the themes noted, a best fit was determined and it was included into one of the themed categories.

While a few of the articles included do not reference virtual or hybrid meetings specifically, they do address the adoption and use of technology within these types of meetings, so they are included within this analysis. Table 3.1 provides an overview of articles separated by virtual or hybrid and includes them under the following categories: N/V (N = number, V=Virtual), N/H (N = number, H = Hybrid) and N/T (N = number, T=Technology). The category of N/T was included when the article addressed the use of technology in a meeting, but did not specifically address the meeting in either a virtual or hybrid context. The articles are categorized according to theme and topic and according to the journals in which they are published, and also categorized in terms of qualitative and quantitative methodologies. Research trends are then identified. The findings result in a sample of 67 applicable articles with only 15 of the articles regarding virtual and hybrid meetings, or technology used within these meetings, found in hospitality and tourism journals, and 52 appearing outside of the discipline (see Table 3.1).

Table 3.1: Sample Publications by Journal Source

N/H = Number/Hybrid ***N/V = Number/Virtual*** ***N/T = Number/Technology***

Hospitality & Tourism Journal	**N/H**	**N/V**	**N/T**	**Non-hospitality/tourism Journal**	**N/H**	**N/V**	**N/T**
Event Management		1					
Journal of Convention & Event Tourism		1	2	Academy of Management Learning & Education		1	
Journal of Convention & Exhibition Management		2		American Journal of Business Education			1
Journal of Hospitality,		3		Accounting Education	1		

Leisure, Sport & Tourism Education								
Journal of Teaching in Travel & Tourism	1	3		AI & Soc		1		
Tourism		1						
Tourism and Hospitality Research	1			Behavior & Information Technology		1		
				British Journal of Educational Technology		1		
				Computers & Education			2	
				Computers in Human Behavior		1		
				Educational Management Administration		1		
				Educational Media International	1	1		
				English Teaching Forum	1			
				Group Facilitation: A Research and Application Journal	1			
				Human Resource Planning		1		
				IEEE Computer Society		1		
				IEEE Transactions on Professional Communication		1		
				Informatica Economica		1		
				Innovations in Education and Teaching International	1	1		
				International Journal of Electronic Commerce		1	1	
				International Journal Human-Computer Studies		1		
				International Journal of Production Research		1		
				International Journal of Social Sciences		1		
				International Journal of Training and		1		

				Development				
				Journal of Business Communication		1		
				Journal of Cleaner Production		1		
				Journal of Educational Technology & Society		2		
				Journal of Geography in Higher Education		1		
				Journal of Information Systems Applied Research			1	
				Journal of Information Systems Education		1		
				Journal of Library Administration	1			
				Journal of Management Education			1	
				Journal of Organizational Computing and Electronic Commerce			1	
				Journal of Organizational and End User Computing		1		
				Journal of Planning Literature		1		
				Journal of Transport Geography			1	
				Learning, Media and Technology		1		
				Marketing Education Review	1			
				Medical Teacher		2		
				Performance Improvement		1		
				Performance Research: A Journal of the Performing Arts			1	
				Presence		1		
				PsychNology Journal		1		
				Soc Just Res		1		
				Techtrends: Linking Research & Practice to Improve Learning	1			
				The Quarterly Review	1			

				of Distance Education Theory into Practice Universal Access in the Information Society		1	1
SubTotal by Category	**2**	**11**	**2**		**9**	**33**	**10**
Total for H & T = 15				**Total for "other" = 52**			

The largest grouping of articles is comprised of journals involving an educational aspect (and contained "education," "educational," "teacher," or "teaching" within the title of the journal). This grouping includes 26 articles within the following 18 academic journals:

- *Academy of Management Learning & Education*
- *American Journal of Business Education*
- *Accounting Education*
- *British Journal of Educational Technology*
- *Computers & Education*
- *Education & Training*
- *Education Management Administration*
- *Educational Media International*
- *English Teaching Forum*
- *Innovations in Education and Teaching International*
- *Journal of Educational Technology and Society*
- *Journal of Hospitality, Leisure, Sport & Tourism Education*
- *Journal of Information Systems Education*
- *Journal of Management Education*
- *Journal of Teaching in Travel & Tourism*

- *Marketing Education Review*
- *Medical Teacher*
- *The Quarterly Review of Distance Education*

The second largest category, contained 19 articles each and pertained to virtual and/or hybrid meetings, or the use of technology within these meetings. The 16 journals in which the articles were found contained "computer," "technology," "IEEE," or "electronics" within the title. The journals involving a technological aspect were:

- *Behavior & Information Technology*
- *Computers & Education*
- *Computers in Human Behavior*
- *IEEE Computer Society*
- *IEEE Transactions on Professional Communication*
- *International Journal of Electronic Commerce*
- *Journal of Educational Technology & Society*
- *Journal of Information Systems Applied Research*
- *Journal of Information Systems Education*
- *Journal of Organizational Computing and Electronic Commerce*
- *Journal of Organizational and End user Computing*
- *Journal of Transport Geography*
- *International Journal Human-Computer Studies*
- *Learning Media & Technology*
- *Presence*
- *Universal Access in the Information Society*

There are four articles located in three journals that were included within both of the previously mentioned groupings due to an educational component and a technological component with their titles including:

- *Computers & Education*
- *Journal of Educational Technology & Society*
- *Journal of Information Systems Education*

Using a technique for content analysis reduction, adopted from Baloglu and Assante (1999), the data is categorized according to theme to determine trends. Strauss and Corbin (1990) identify themes as categories of discrete concepts. Themes are further explained as concepts that when compared, refer to a similar or alike phenomenon, and grouped under one category. The themes found within this research were identified through repetition (an acceptable method identified by Ryan and Bernard (2003)).

3.3.3 Data Analysis

After analysis of the articles, three of the publications fell into the categories of conceptual *and* empirical due to the proposition of the theoretical model and then the testing of that model (Stepchenkova & Mills, 2010), and four of the publications were categorized as conceptual papers with no data collected. All remaining articles were categorized under empirical studies. After categorizing these articles into qualitative and quantitative data, it was found while some of the studies (10, 15%) incorporated both qualitative and quantitative methods, 34 (50.7%) used qualitative methods and 29(43.2%) used quantitative methods within their research.

A larger percentage of studies utilize qualitative research methods. The majority of quantitative studies (28) use a survey methodology (41.7% of all 67 articles). Table 3.2 provides a list and percentage of articles for each research category.

Table 3.2: Most Used Qualitative Data Collection Methods

Data Collection Method	N	% based on all 67 Articles	% based on Qualitative Articles Only
Case Study	10	15%	29.4%
In-Person or Online Observations	12	18%	35.3%
Interviews	7	10%	20.6%
Focus Groups	5	7%	14.7%

Initial formulation of themes within the research emerged (Stepchenkova & Mills, 2010). As these articles were categorized and tabulated, themes were further solidified. Through this multi-step process of analyzing the articles, the five themes included:

- Perceptions and Attitudes Toward Virtual and Hybrid Meetings
- Uses of Technology within Virtual and Hybrid Meetings
- Management and Design of Virtual and/or Hybrid Meetings
- Comparison of Virtual and/or Hybrid Meetings with F2F Meetings
- Specific Audiences for Virtual and Hybrid Meetings

As noted in Table 3.3, the majority of articles were categorized within the categories of "Uses of Technology within Virtual and Hybrid Meetings" (28%) and "Perceptions and Attitudes Toward Virtual and Hybrid Meetings" (28%). See Table 3.3 for percentage of articles in each category.

Table 3.3: Themes/Categories and Percentage of Articles Included

Category	Percentage of Articles
Perceptions and Attitudes Toward Virtual and Hybrid Meetings	28%
Uses of Technology within Virtual and Hybrid Meetings	28%
Management and Design of Virtual and/or Hybrid Meetings	19%
Comparison of Virtual and/or Hybrid Meetings with F2F Meetings	15%
Specific Audiences for Virtual and Hybrid Meetings	10%

3.4 Results and Discussion

The themes that emerged as the data was analyzed and the percentages are shown in Table 3.3. These themes follow the progression of implementing virtual and hybrid meetings. Beginning with investigating the perceptions of virtual and hybrid meetings, then with what technology can be incorporated into virtual and hybrid meetings, moving toward the management and design of these meetings, comparing them with F2F meetings and finally, investigating what audiences are best suited for virtual and hybrid meetings.

3.4.1 Perceptions and Attitudes Toward Virtual and Hybrid Meetings

Content, connections, networking and experience have been noted by PCMA and the VIE (2011) as the three factors necessary to create a successful event. While important, the same entities are noted in a 2011 study highlighting collaboration and networking as two of the main reasons F2F events still remain in the forefront over virtual meetings. (PCMA, UBM Studios, & VEI, 2011).

Based on the articles reviewed (Table 3.4), there is a current theme of researching the perceptions and attitudes toward both virtual and hybrid meetings by both planners and attendees.

Table 3.4: Perceptions and Attitudes Toward Virtual and Hybrid Meetings

Author	Article	Journal
Ausburn, L. J.	Course design elements most valued by adult learners in blended online education environments: An american perspective.	Educational Media International
Bailey, K. D., & Morais, D. B.	Exploring the use of blended learning in tourism education.	Journal of Teaching in Travel & Tourism
Bekebrede, G., Warmelink, H. J. G., & Mayer, I. S.	Reviewing the need for gaming in education to accommodate the net generation.	Computers & Education
Chen, I. L., Chen, N.S., & Kinshuk.	Examining the factors influencing participants' knowledge sharing behavior in virtual learning communities.	Journal of Educational Technology & Society
Chudoba, K. M., Watson-Manheim, M. B., Crowston, K. & Lee, C. S.	Participation in ICT-enabled meetings.	Journal of Organizational and End User Computing
Crawford, M.	Enhancing school leadership: Evaluating the use of virtual learning communities.	Educational Management & Administration
Dale, C., & Lane, A.	A wolf in sheep's clothing? An analysis of student engagement with virtual learning environments.	Journal of Hospitality, Leisure, Sport & Tourism Education
Gomezelj, D., & Čivre, Ž.	Tourism graduate students' satisfaction with online learning.	Tourism
Haven, C., & Botterill, D.	Virtual learning environments in hospitality, leisure, tourism and sport: A review.	Journal of Hospitality, Leisure, Sport & Tourism Education

Huang, Y., Backman, S. J. & Backman, K. F.	Student attitude toward virtual learning in Second Life: A flow theory approach.	Journal of Teaching in Travel & Tourism
Jelfs, A., & Richardson, J. E.	The use of digital technologies across the adult life span in distance education.	British Journal of Educational Technology
Litvin, S. W.	The Cyber-Conference: Vision or Illusion?	Journal of Convention & Exhibition Management
McHarg, J., Goding, L., Caldarone, E., Regan de Bere, S., & McLachlan, J.	Availability of a virtual learning environment does not compensate for the lack of a physical facility.	Medical Teacher
Molesworth, M.	Collaboration, reflection and selective neglect: campus-based marketing students' experiences of using a virtual learning environment.	Innovations in Education & Teaching International
Pearlman, D. M., & Gates, N. A.	Hosting business meetings and special events in virtual worlds: A fad or the future?	Journal of Convention & Event Tourism
Redpath, L.	Confronting the bias against on-line learning in management education.	Academy of Management Learning & Education
Singh, N., & Myong Jae, L.	Exploring perceptions toward education in 3-D virtual environments: An introduction to “Second Life”.	Journal of Teaching in Travel & Tourism
Tsiatsos, T., Andreas, K., & Pomportsis, A.	Evaluation framework for collaborative educational virtual environments.	Journal of Educational Technology & Society
Yu-Chih, H., Backman, S. J., & Backman, K. F.	Student attitude toward virtual learning in second life: A flow theory approach.	Journal of Teaching in Travel & Tourism

Reviewing these articles in order of date indicates attitudes and perceptions are progressing and evolving into more positive experiences with regard to the use of technology within meetings as time progresses.

Crawford (2002) addressed the need to better understand the leader's role in virtual learning communities and investigated influencing factors for participation within a virtual community in addition to the role of the leadership within those communities. Crawford (2002) acknowledged the growth of the virtual community and the perceptions of educational leaders with regard to these experiences. An enhanced conceptual framework is presented within this article to assist educational leaders working within these environments. If we consider the learners within these communities as attendees, this article can directly relate to the studies of meetings and events.

Litvin (2003) found respondents viewed cyber-conferencing as being a step ahead of video-conferencing, and indicated although it would be widely accepted in the future; it would not replace in-person meetings and/or events. Haven and Botterill (2003) reviewed the qualitative outcomes which examined the exploitation of Virtual Learning Environments (VLEs) within the fields of hospitality, leisure, sport and tourism within United Kingdom (UK) higher learning institutions. The results indicated differences in motivations for the implementation of VLEs, barriers to acceptance, and possible areas for future development. The paper also includes recommendations for the further application and implementation of VLEs.

Molesworth (2004) found mixed results with regard to students' attitudes pertaining to using technology for communication. Thestudents in this study were not happy with online seminars. Lectures that could be downloaded received a more positive response from students. Ausburn (2004) investigated the most valued blended learning course design elements by adult learners. The results indicate 67% of adult learners ranked online course features and instructional design goals as the most important factors

in this environment. The adult learners valued course designs that are personalized, self-directed, offer options, offer variety and provide a learning community.

Bailey and Morais (2004) investigated the rapid increase in Internet use within educational settings and explored the impact of perceptions of F2F and online interactions on satisfaction and performance in a blended learning marketing assignment within a hospitality curriculum. Results of this study showed satisfaction was influenced by online interactions with those in the classroom, but had no impact on grades. The findings recommend instructors utilize online tools within the classroom to increase student satisfaction.

Dale and Lane (2007) explored the opinions and experiences of student engagement (or non-engagement) in E-learning activities. This study recommended learning and teaching strategies to further enhance student engagement and E-learning activities. Findings of this research recognized issues related to student awareness, motivation, behavior and learning methods, assessment and technical factors with regard to student engagement and E-learning activities.

Singh and Myong Jae (2008) explored computer-based simulated virtual environments, such as Second Life. This study investigated students' perceptions of Second Life as an educational tool within tourism and hospitality courses. The Technology Acceptance Model (TAM) was applied and tested (through multiple regressions). The TAM theory illustrates how users accept and use a technology. The results of the study indicated students have positive perceptions of using these tools within tourism and hospitality courses. As the field of education works to effectively

prepare the 21st century community, one opportunity is to utilize next-generation technology tools, such as Second Life.

Chen, Chen and Kinshuk (2009) found the opinions of friends, teachers and classmates assisted with creating an environment that encourages participating in online learning communities. Therefore, the perceptions of others influence those around them with regard to this experience. This study integrated the Theory of Planned Behavior (TPB) to create their research model. The TPB premise is based on how behavioral intentions serve as motivational factors indicating how hard individuals are willing to work to perform a specific behavior.

Huang, Backman and Backman (2010) reported the quality of student interaction and engagement and how pleasant the experience was, involved, among other factors, the perception of interaction and engagement within the virtual environment. The platform of Second Life was used to investigate the Flow Theory. The Flow Theory has been defined as "the holistic sensation that people feel when they act with total involvement" (Csikszentmihalyi, 1975, p. 36).

Within the MEEC industry, the number of virtual conferences and trade shows more than doubled in one year between 2009 and 2011 which indicates the perceptions and attitudes with regard to these meetings may be gaining favor (Market Research Media, 2012). Pearlman & Gates (2010) also noted hybrid meetings and events incorporate the best of both virtual and F2F meetings and are also gaining in popularity.

Yu-Chih, Backman,and Backman (2010) focused on Second Life and utilized the Flow Theory to better understand the impacts of Second Life on students' attitudes with regard to E-learning. The finding showed 3D virtual flow experiences had a significant

impact on the respondent's attitudes toward virtual learning. The quality of participation and pleasant experiences were influenced by the skills available to undertake difficult tasks, the perception of interactivity, and the extent of "presence sensation" recognized by students. Also noted was the idea of factors related with the success of flow experience in Second Life can have both direct and indirect influence on attitude toward E-learning through the mediation of flow.

Bekebrede, Warmelink and Mayer (2011) conducted research based on the idea that Generation Y has been immersed in technology since they were born and focused on how technology and gaming impact their preferred learning styles, social engagement and use of technology in general. The findings proposed gaming as a new component in learning that assists in addressing all of these preferences for this generation. In addition, there was statistically no significant difference in collaborative and technological learning preferences between the representatives and non-representatives of Generation Y. Both members of Generation Y and nonmembers of Generation Y favored collaborative and technological learning environments and considered gaming to be a valuable teaching method.

Chudoba, Watson-Manheim, Crowston and Nanyang (2011) noted while meetings are essential to organizations that prize teamwork, the face of these meetings is evolving through the use of technology. Redpath (2012) acknowledged the preference and attitudinal bias in favor of F2F interactions, although research indicates on-line and blended teaching are becoming more accepted. Redpath (2012) stated part of this bias is due not only to the quality of the material being delivered, but how the material is delivered.

Gomezelj and Čivre (2012) identified and presented the advantages and disadvantages of introducing an online study process. The level of students' satisfaction with online learning was also analyzed. The results of the study indicated students are mostly satisfied with their lessons when using an online environment. The factors influencing their satisfaction include: personality of students, E-learning properties, and E-classroom properties. This study used Exploratory Factor Analysis (EFA) and structural equation modeling to develop and test this new model. As in the other articles within the field of education, this publication is applicable if students are considered as attendees learning in within a virtual environment.

While generational cohorts were not identified in many of the studies, ages of participants were included as part of the research. Jelfs and Richardson (2013) explored access and attitudes toward technology when reviewed across the adult life span. They determined while all students had access to computers and Internet, younger students were more likely to access other technologies. Younger students spent more time using technology and their attitudes were more positive. Older students were more likely to utilize strategic approaches to learning. Students of all ages with more positive attitudes toward technology adopted strategic approaches to learning. The students' use and attitudes of technology varied across the adult lifespan and their age and attitudes (toward technology) were predictors of their learning approaches. Older students appeared to be more likely to complete online surveys. All students had positive attitudes toward technology and consider technology as vital to their learning experience.

Ninety-six% of meeting and event planners have used virtual meetings and 80% have reported moderate to high increases in their usage between 2008 and 2010 (Carlson

Wagonlit Travel, 2010). This information supports the academic trend of changing perceptions of virtual meetings and acknowledges the acceptance of them as indicted by the increase in their use. While there appears to be an overwhelming industry opinion virtual meetings will not replace F2F meetings, many meeting planners appear to think virtual meetings can be used in place of smaller (20 – 30 attendees) meetings (Carlson Wagonlit Travel, 2010).

3.4.2 Uses of Technology within Virtual and Hybrid Meetings

Table 3.5: Articles Included within Uses of Technology within Virtual and Hybrid Meetings

Author	Article	Journal
Anderson, A. H., McEwan, R. & Carletta, J.	Virtual team meetings: An analysis of communication and context.	Computers in Human Behavior
Bajko, R.	Mobile telephone usage, attitude, and behavior during group meeting.	Journal of Information Systems Applied Research
Casanova, M. B., Dae-Young, K., & Morrison, A. M.	The relationships of meeting planners' profiles with usage and attitudes toward the use of technology.	Journal of Convention & Event Tourism
Fenich, G. G., Scott-Halsell, S. & Hashimoto, K.	An investigation of technological uses by different generations as it relates to meetings and events: A pilot study.	Journal of Convention & Event Tourism
Houck, C.	Multigenerational and virtual: How do we build a mentoring program for today's workforce?	Performance Improvement
Jin, L., Wen, Z., & Gough, N.	Social virtual worlds for technology-enhanced learning on an augmented learning platform	Learning, Media, and Technology
Julsrud, T., Hjorthol, R., & Denstadli, J.	Business meetings: do new videoconferencing technologies change communication patterns?	Journal of Transport Geography

Kim, D., & Park, O.	A study on American meeting planners' attitudes toward and adoption of technology in the workplace.	Tourism & Hospitality Research
Kirkley, S. E., & Kirkley, J. R.	Creating next generation blended learning environments using mixed reality, video games and simulations.	Techtrends: Linking Research & Practice To Improve Learning
Lillie, R. E., Liu, X., & Kang, G.	Creating and maintaining instructor/student connection between class meetings: The use of Eyejot – a video messaging technology.	American Journal of Business Education
Nakanishi, H.	FreeWalk: a social interaction platform for group behaviour in a virtual space	International Journal of Human-Computer Studies
Petralia, P.	Here, there and in-between: Rehearsing over skype.	Performance Research
Privitera, A., Martino, F., & Gamberini, L.	Virtual meeting analyzer: A Web application to visualize and analyze social networks emerging in group meetings.	Psychology Journal
Reidsma, D., op den Akker, R., Rienks, R., Poppe, R., Nijholt, A., Heylen, D., & Zwiers, J.	Virtual meeting rooms: from observation to simulation.	AI & Society
Salajan, F. D., Schonwetter, D. J., & Cleghorn, B. M.	Student and faculty inter-generational digital divide: Fact or fiction?	Computers & Education
Schümmer, T., Tandler, P., & Haake, J.	The next-generation business meeting: from i-lands to flexible meeting landscapes.	Universal Access in The Information Society
Sudac, A., Bîzoi, M., & Filip, F.	Exploring multimedia Web conferencing.	Informatica Economica
Wang, Y. & Braman, J.	Extending the classroom through Second Life.	Academic Journal of Information Systems Education

Based on the articles reviewed (Table 3.5) within this theme, three subthemes also emerged and include articles reviewing the perceptions or attitudes toward the utilization

of technology; articles specifically addressing virtual components of both virtual and hybrid meetings; and the utilization of specific virtual products (ie. SecondLife and Eyejot).

Within the first subcategory, perceptions or attitudes toward the use of technology within meetings, three out of the seven articles from hospitality and tourism journals are included. Casanova, Kim and Morrison (2005) investigate the profiles of meeting planners and the adoption and usage of technology within meetings. This study revealed even though the corporate meeting planners within the U.S. are noted as being young (30 – 44 years old), they are still hesitant to plan and coordinate virtual meetings.

Kirkley and Kirkley (2005) investigated learning environments and training technologies and the learning and design questions surrounding them. Within the article, theoretical and design philosophies of constructivist learning environments are discussed. The implementation of progressive technologies and their potential use within learning environments and the challenges they present were also investigated. The article offers tools to assist the design teams and assist with the management of these complexities.

Kim and Park (2009) indicate corporate and private/independent meeting planners are more likely to incorporate technology into their meetings than association meeting planners. The findings indicate an increase in technology use within meetings in conjunction with the more technological experience of the meeting planner. Fenich, Scott-Halsell and Hashimoto (2011), investigate how different generations, use technology within meetings, specifically focused on Generation Y. Addressing how hotels can better target guests from Generation Y through incorporating technology within meeting options, this study notes the lack of available academic literature within

this area. This article states there is a need for large empirical studies to be conducted on the preferences of technological use within meetings, specifically regarding Generation Y.

Houck (2011) wrote a conceptual article considering the generational differences with regard to virtual mentoring programs. Specifically, technological preferences and communication styles are addressed. Best practices are offered addressing the needs of each generation in addition to an overview of the literature with regard to the perceptions of each generation. This article contains information with regard to generational perceptions and the use of technology and communication.

Salajan, Schonwetter and Cleghorn (2010) investigate the differences between students and faculty and the use of technology within curriculums. A slight inter-generational difference was found but further research is recommended. This article was included within this research due to the definition of hybrid meetings, which includes the use of technology within campuses or learning environments.

The second subtheme that emerged within this sections includes articles specifically addressing virtual components of both virtual and hybrid meetings. Within this section videoconferencing or Web conferencing was a recurrent topic of discussion (Anderson, McEwan, & Carletta, 2007; Suduc, Bizoi, & Filip, 2009; Julsrud, Hjorthol, & Denstadli, 2012).

Anderson, et al. (2007) investigates how technology influences communication within meetings. It was concluded the person who ran the chosen technology (i.e., videoconferencing) dominated the meeting communication. It was suggested careful

consideration be given to how technology is used within virtual meetings to achieve the most productive and effective platforms for open communication.

Reidsma, Akker, Rienks, Poppe, Nijholt, Heylen and Zwiers (2007) also focus on communication within virtual meetings. This study reviewed how controlled communication (in the form of gestures, gaze, distance, speech, etc.) improves the meeting participation of remote attendees. The article discussed how virtual meetings can be further utilized to study social interaction among meeting participants.

Suduc, et al. (2009) reviewed the benefits and pitfalls of Web conferencing as a form of communication. Within this study virtual teams were addressed, and how they communicated with each other through Web conferencing. Advantages and disadvantages of Web conferencing are listed with the most important advantages being noted as expenses and saving time.

Jin, L., Wen, Z., and Gough (2010) explore the impact of social networking technologies with regard to virtual worlds in learning environments. Social networking "emphasizes social interaction and share of user-generated content in a collaborative environment" (Li et al., 2010, p. 141) .The findings of this study indicated social virtual worlds have a positive impact on active student learning activities when compared to traditional virtual learning situations. In an additional study about the communication patterns through the utilization of different videoconferencing systems, it was determined different types of video technologies are best suited for different meeting types (Julsrud et al., 2012). Room-based video conferencing is noted as better suited for more limited meetings where the attendees know each other. Internet based videoconferencing is more

suited to meetings with attendees outside of the organization located in remote locations and often abroad.

The third subcategory within this section addresses the utilization of specific virtual products (i.e. SecondLife and Eyejot) and their inclusion within virtual and hybrid meetings. Nakanishi (2003) investigated the use of a social interaction platform called FreeWalk and how it influences behavior within virtual meetings. FreeWalk is an application that allows people to interact with one another socially and spatially. Within the study, FreeWalk is compared to videoconferencing and it is concluded the 3-D environments encourage participants to communicate more comfortably (Nakanishi, 2004).

Second Life is introduced and included within two of the publications within this section. Wang and Braman (2009) offer best practices and lessons learned from using this platform. It was also concluded the use of Second Life within the classroom improves the learning experiences of the participating students (Wang & Braman, 2009). Jin, Wen and Gough (2010) researched virtual worlds and Second Life specifically. This article concluded these types of learning platforms add new dimensions to virtual learning environments. These augmented platforms offer advantages including enhancing the motivation and participation of students.

Other technology products, such as Eyejot, a video email service, and Virtual Meeting Analyzer, an application that analyzes social networks within meetings, have also been the focus of academic studies (Lillie, Liu, & Kang 2011; Privitera, Martino, & Gamberini, 2012). Eyejot provides the option of more interactive communication between participants (Lillie et al., 2011). The Virtual Web Analyzer is described in the

article by Privitera, et al. (2012) and allows users to follow or trace their interactions through social networks.

As technology advances and more products are introduced into the market, academic studies appear to reflect these innovative tools by including them within or as the main topics of research, with regard to virtual and hybrid meetings. Bajko (2012) investigates using Smartphones as replacements for meeting devices (i.e. Laptops). This article also discusses the ease of multitasking while using these devices which supports the findings of an earlier discussed article in which multitasking could be used to enhance the productivity of a meeting (Wasson, 2004).

Skype technology is discussed as a tool to be used in meetings for participation, synchronization and collaboration purposes. Although an option, Petralia (2011) was not an advocate of replacing F2F meetings with these types of technological tools. While these tools are helpful when meetings cannot take place in person, F2F allows for better and quicker communication offering a more effective platform for meetings (Petralia, 2011).

Another technological tool used within virtual and hybrid meetings is LivingAgendas. This tool was created for meeting attendees to use throughout the lifecycle of the meeting. The findings provided three dimensions that should be considered when using this tool within the meeting format. They include 1) the roomware dimension; 2) the groupware dimension; and 3) the peopleware dimension (Schummer, Tandler, & Haake, 2012).

3.4.3 Management and Design of Virtual and/or Hybrid Meetings

Since the introduction of virtual and hybrid meetings as optional platforms for offering meetings, there has been research conducted on the best ways to plan, hold or design this genre of meetings. The articles within this theme (Table 3.6) included the component of the management and/or design of the meetings.

Table 3.6: Management and Design of Virtual and Hybrid Meetings

Aurich, J. C., Ostermayer, D. D., & Wagenknecht, C. H.	Improvement of manufacturing processes with virtual reality-based CIP workshops.	International Journal Of Production Research
Çakir, A. E.	Virtual communities – a virtual session on virtual conferences.	Behaviour & Information Technology
Chang, T. C.	Transborder tourism, borderless classroom: reflections on a Hawaii-Singapore experience.	Journal of Geography in Higher Education
Edgar, J.	Virtual exhibitions: A new product of the IT era.	Journal of Convention & Exhibition Management
Flowers, A. A., & Gregson, K.	Decision-making factors in selecting virtual worlds for events: Advocacy, computer efficacy, perceived risks, and collaborative benefits.	Event Management
Gresalfi, M., & Barab, S.	Learning for a reason: Supporting forms of engagement by designing tasks and orchestrating environments.	Theory into Practice
Hodge, E. M., Tabrizi, M. N., Farwell, M. A., & Wuensch, K. L.	Virtual reality classrooms strategies for creating a social presence.	International Journal of Social Sciences
Koh, J. & Kim, Y. G.	Sense of virtual community: a conceptual framework and empirical validation.	International Journal of Electronic Commerce
Linderman, R. W., Reiners, D., & Steed, A.	Practicing what we preach: IEEE VR 2009 virtual program committee	IEEE Computer Society

	meeting.	
Mueller, D., & Strohmeier, S.	Design characteristics of virtual learning environments: an expert study.	International Journal of Training & Development
Tabor, S.	Narrowing the distance: Implementing a hybrid learning model for information security education.	The Quarterly Review of Distance Education
Wagenaar, S. & Hulsebosch, J.	From "a meeting" to "a learning community".	Group Facilitation: A Research and Applications Journal
Wasson, C.	Multitasking during virtual meetings.	Human Resource Planning

Cakir (2002) states virtual communities had already been in existence for approximately two decade previously, supported by computers and communication facilities. Virtual communities are groups of individuals that can maintain connectivity via links and they are together due to common interests, not by common space (Cakir, 2002). Virtual communities connecting due to common interests fall under the category of meetings based on the definition of events where the primary attendee activity can include socializing. (Fenich, 2012).

Edgar (2002) addressed exhibitors and provided an overview of the options available for an exhibitor within a virtual event. Edgar notes virtual formats offer additional marketing opportunities to vendors, however, partnering with a F2F format (hence a hybrid format) would offer even more possibilities. In addition to offering information on the design and management of virtual and hybrid meetings, most of the articles have been categorized into this section offer positive support for virtual and hybrid meetings. Koh and Kim (2003) determined the utilization of multimedia support (e.g., Videoconferencing) offers the virtual community the impact of F2F meetings. The

sense of virtual community constructs are important to consider when designing these types of meetings as they aid in supporting the behaviors of the participants (Koh & Kim, 2003).

A study by Wasson (2004) discusses how multitasking can also be used to enhance the productivity of the organization hosting the meeting. It was also found multitasking does not impact the productivity of the meeting itself, but the organization benefits due to the increased productivity of the individual. This conclusion implies there is room for multitasking within these meeting formats and there may be a way to incorporate multitasking into the design of the meeting so there is more productivity for all.

Chang (2004) explores a virtual classroom exercise facilitated by the University of Hawaii, Manoa (UHM) and the National University of Singapore (NUS). This study investigates the prospect of substituting virtual explorations for conventional fieldtrips within the classroom. The results indicate traditional field trips can be simulated through online experiences although traditional fieldtrips offer multi-sensory experiences that better permit participants to comprehend a foreign culture, society and environment. With regard to meetings and events, the students would be considered the meeting attendees and the fieldtrip would be and event within the meeting (classroom experience).

Hodge, Tabrizi, Farwell and Wuensch (2007) investigated course material delivery through a virtual platform. This article highlights the benefits of this delivery method including offering "interactivity, real-time interaction and social presence" with particular focus on Generation Y. Social presence is defined as the "ability of learners to project their personal characteristics to their group members and classmates" (Hodge et

al., 2007, p. 106). Generation Y utilizes these learning communities to enhance their social and educational connections. Virtual learning environments allow for students and professors to better collaborate and interact. This promotes more interaction between the two and encourages more positive relationships to develop. This study investigated student satisfaction and course delivery effectiveness within a virtual environment.

Wagenaar and Hulebosch (2008) utilized the Communities of Practice Theory to determine if members within these meeting groups deepen and enrich their experiences through the interaction with other members. The Communities of Practice Theory is defined as "groups of people interacting regularly to share knowledge and experiences about the domain in which they are engaged" (Wagenaar & Hulebosch, 2008, p. 14). This study deducted 11 principles to be considered when running a learning community which were a result of a case study involving a hybrid learning community. These 11 principles are: 1) Act as learning facilitator-practitioner; 2) Co-facilitate to reduce blind spots; 3) Embed learning in actual practice; 4) Simulate self-organisation; 5) Facilitate conversations in public and private spaces; 6) Use the variety in the community; 7) Balance the focus on tangible and intangible products; 8) Guide meta-level reflections; 9) Distinguish between two layers of practice; 10) Manage sponsor relationships; and 11) Manage the boundaries (Wagenaar & Hulebosch, 2008, p. 25).

Hybrid models for meetings have received attention throughout a number of publications reviewed, and while many recent articles tout them as the direction of future meetings, Tabor (2007) concluded that the hybrid model needs to consider the content of material and maturity level of the participant to be successful. This thought again echoes

a few of the implications discussed in previously mentioned articles (Bull Schaefer & Erskine, 2012).

Linderman, Reiners and Steed (2009) conducted a feasibility test to determine if Second Life is a viable meeting alternative. This study identified four observations including: F2F meetings offered more attendee engagement opportunities; engagement protocol fared better within Second Life; it proved to be easier to speak with familiar individuals on Second Life; and scheduling meetings proved to be difficult when using this platform. Mueller and Strohmeier (2010), investigated design characteristics best suited for Virtual Learning Environment training and development purposes. The findings provided 55 (reduced to 31) design characteristics prioritized according to environment and implications as discussed.

Gaming has recently been added as an option for design within virtual meeting environments (Gresalfi & Barab, 2011). By including a gaming component, these meetings and/or learning environments can highlight procedural, critical, consequential and conceptual forms of participant engagement. This article specifically reviews students' use of gaming as a component of classroom learning similar to meeting attendees' use of gaming within a meeting.

Flowers and Gregson (2012) use of qualitative interviews with hosts of virtual investigated the decision to use virtual alternatives for meeting attendees. The findings identified practical implications on the unique attributes found in a 3D virtual environment. The opportunities of utilizing a 3D virtual environment included encouraging fun, playfulness, and innovation while the challenges included the attendees' learning curve and risk factors.

While the articles within the category of "Management and Design of Virtual and/or Hybrid Meetings" all offer various options to include while designing or facilitating a virtual or hybrid meeting, they are options that can enhance the success of these meetings and the experience of both the meeting planner and meeting attendee. Therefore, full consideration should be given to all planning aspects as the planning process continues.

3.4.4 Comparison of Virtual and/or Hybrid Meetings with F2F Meetings

The articles included within the theme of comparing virtual and/or hybrid meetings to F2F meetings within academic literature (Table 3.7) could be viewed as logical since F2F meetings are still the preferred way of gathering and exchanging information (PCMA, UBM Studios, & VEI, 2011). Virtual and hybrid meetings, however, are gaining in popularity (Pearlman & Gates, 2010).

Table 3.7: Comparison of Virtual and Hybrid Meetings with Face to Face Meetings

Arnfalk, P. P., & Kogg, B. B.	Service transformation—managing a shift from business travel to virtual meetings.	Journal of Cleaner Production
Brooks, C. F.	Toward 'hybridized' faculty development for the twenty-first century: blending online communities of practice and F2F meetings in instructional and professional support programs.	Innovations in Education & Teaching International
Bull Schaefer R, Erskine L.	Virtual team meetings: Reflections on a class exercise exploring technology choice.	Journal of Management Education
Dowling, C., Godfrey, J., & Gyles, N.	Do hybrid flexible delivery teaching methods improve	Accounting Education

	accounting students' learning outcomes?.	
Friedman, D., Karniel, Y., & Dinur, A.	Comparing group discussion in virtual and physical environments.	Presence: Teleoperators & Virtual Environments
Guo, Z., D'Ambra, J., Turner, T., & Zhang, H.	Improving the effectiveness of virtual teams: A comparison of video-conferencing and face-to-face communication in China.	IEEE Transactions on Professional Communication
Hakonen, M., & Lipponen, J.	Procedural justice and identification with virtual teams: The moderating role of face-to-face meetings and geographical dispersion.	Social Justice Research
Markman, K. M.	So what shall we talk about?	Journal of Business Communication
Rhoads, M.	Face-to-face and computer-mediated communication: What does theory tell us and what have we learned so far?	Journal of Planning Literature
Shin, B. & Higa, K.	Meeting scheduling: Face-to-face, automatic scheduler, and email based coordination.	Journal of Organizational Computing and Electronic Commerce

Arnfalk and Kogg (2003) investigated the barriers and drivers with regard to virtual meetings replacing business travel. Two Swedish companies were included in this research, both having advanced communication and information technologies in place for employees. This research concluded virtual meetings are best suited for specific meeting types, such as informative, follow-up, short and/or repetitive meetings (Arnfolk & Kogg, 2003). Driving factors and barriers were identified while better preparation was noted as a requirement for the success of virtual meetings. Perception was noted within this study and negative attitude was acknowledged with regard to virtual meetings being less efficient.

The first mention of hybrid also appears in 2003 in educational (academic) literature and compared hybrid teaching methods with F2F teaching methods while investigating their effectiveness (Dowling et. al., 2003). This study concluded the final grades of students were positively associated with the hybrid teaching method employed and encourages further use of these types of delivery methods. Since an educational component is included within the definition noted earlier, students are again viewed as meeting attendees making this research applicable to the subject of virtual and hybrid meetings.

In a study comparing F2F meetings in China to virtual meetings, specifically video-conferencing; it was concluded that video-conferencing was as effective as F2F communication and, video-conferencing communication can enhance F2F outcomes for teams (Guo et. al., 2009).

Markman (2009) investigated communication, specifically chat-based virtual meetings, in comparison to F2F meetings. Markman concluded virtual meeting participants have more difficulty beginning and ending these meetings than in F2F meetings. Markman (2009) concluded a structured agenda is important in for virtual meeting's success.

A communication comparison (within groups) between virtual and F2F meetings was investigated by Friedman, Karniel, and Dinur (2009). In this study the dynamics and content of discussions (in groups) were reviewed in a virtual environment called SecondLife. Within SecondLife, participants communicated through the use of avatars. Within this environment, research found many discussions were unrelated to the main topic of the meeting. Also, conversations among participants were much shorter than

F2F conversations. While the group dynamics of this setting and F2F meetings was shared it was also noted participants were frequently engaged in behavior that cannot or would be less likely to take place in F2F settings, such as flying in the air, taking their clothes off and standing on tables (Friedman et al., 2009).

Shin and Higa (2009) explored F2F meeting scheduling as compared to email scheduling, automated scheduling and calendar-based scheduling. Respondents favored coordinating and scheduling meetings F2F when compared with the other options. Overall, communication approaches to decision-making were favored over technology enhanced communication which was more decision oriented (e.g., Automated scheduler).

Rhoads (2010) found mixed results when investigating the differences between F2F and computer-mediated communication. Computer-mediated technology allows individuals and organizations to conduct business electronically, thus removing the need for the physical location of those involved (Rhoads, 2010) While concluding F2F communication is the preferred method for organizational and business communication, Rhoads noted computer-mediated communication is continually growing, and meeting planners should understand how to operate both to best accommodate a progressively international society.

Brooks (2010) reintroduced the hybrid format with regard to professional and instructional support and compared this format with a F2F format of communication. This study concluded hybrid communication formats are favored regarding socialization, faculty support and mentoring opportunities as online communication can be used to compliment F2F interactions.

Bull, Schaefer and Erskine (2012) asked students, viewed as meeting attendees for this research, to replace F2F meetings with virtual meetings. This study concluded the choice by instructors to use virtual meetings as part of the classroom format should be carefully considered and given as an option for tasks and the dissemination of information. It was concluded not all classes benefit from an online format (Bull, Schaefer, & Erskine, 2012).

Based on the articles included within this section, it appears while virtual meetings are gaining favor, F2F meetings are still preferred, but hybrid meetings are an acceptable combination of the two and are suggested as the future of meetings. Travel industry leaders appear to agree both virtual and F2F meetings have their place, depending on the format and objectives of the meetings. Industry publications indicate virtual meetings are appropriate for informative tasks and/or can serve nicely as a back-up plan with regard to risk management, but the F2F meetings remain steadfast for meetings with more complex objectives (Carlson Wagonlit Travel, 2010).

3.4.5 Specific Audiences for Virtual and Hybrid Meetings

Within those articles addressing specific audiences for virtual and hybrid meetings (Table 3.8), a variety of very specific audiences and their use or need for virtual and/or hybrid meetings was addressed. Audiences such as generational cohorts, non-traditional students, distance education learners, paramedic students, marketing students and dance performers were investigated.

Table 3.8: Specific Audiences for Virtual and Hybrid Meetings

Conradi, E., Kavia, S., Burden, D., Rice, A., Woodham, L., Beaumont, C., Savin-Baden & Poulton, T.	Virtual patients in a virtual world: Training paramedic students for practice	Medical Teacher
Estelami, H.	An exploratory study of the drivers of student satisfaction and learning experience in hybrid-online and purely online marketing courses.	Marketing Education Review
Grays, L. J., Del Bosque, D., & Costello, K.	Building a better M.I.C.E. trap: Using virtual focus groups to assess subject guides for distance education students	Journal of Library Administration
Liwei, H.	The perceptual learning styles of hospitality students in a virtual learning environment: The case of Taiwan.	Journal of Hospitality, Leisure, Sport & Tourism Education
Miller, M. T., & Mei-Yan, L.	Serving non-traditional students in e-learning environments: Building successful communities in the virtual campus.	Educational Media International
Reilly, P.	Understanding and Teaching Generation Y.	English Teaching Forum

Miller and Mei-Yan (2003) researched virtual campuses serving non-traditional students and determined online faculty recognizes a difference between traditional and nontraditional students in the way they learn and work within the virtual platform. Traditional students are defined as individuals between the ages of 18–24 and who are enrolled on a full-time basis at a college or university. Non-traditional students are those who fall outside of that realm (Miller & Mei-Yan, 2003.) Specific to distance education

students, Grays, del Bosque and Costello (2008) address how effective the online courses are to distance education students who are meeting online in order to complete coursework.

The concept of using the virtual environment to train paramedic students was performed through the use of virtual patients in Second Life, it was determined the level of learning offered through a virtual setting was an effective experience for students (Conradi et al., 2009). Estelami (2012) however, supports the type and components of the course being taught determine the most effective learning format. This study reports the most effective approach to teach marketing students who are learning qualitative information is the hybrid-online approach. When the classroom is viewed as a meeting and the students as meeting attendees, this article can logically be included within this research.

Research examining the interaction between lecturer and student in an online virtual environment was conducted utilizing the Barsch Learning Style Inventory (Liwei, 2011). Data was collected from 72 hospitality students in Taiwan who participated in an English course through a virtual environment setting. The findings of this research identified six types of perceptual styles that were then used to predict 95.83% of the learning style classification. This article is applicable to meetings and events when viewing students as meeting attendees.

Reilly (2012) acknowledged today's teachers understand today's learners think and behave differently than learners from past generations. This article addresses characteristics of Generation Y and presented a few classroom strategies to help better engage this generation. When reviewing educational literature from a meetings and

events perception, by considering the students as the meeting attendees, the results become applicable to this area of study.

3.5 Conclusion

While the literature on virtual and hybrid meetings appears to be small within the studies of hospitality and tourism, there is literature available with regard to these genres of meetings within other disciplines, such as education and management. As the world of virtual and hybrid meetings continue to gain popularity within hospitality and tourism, there is a need for additional literature within this area of study. Researchers can begin by looking outside of hospitality and tourism using an interdisciplinary approach to advance the knowledge within this area. While online learning has been studied within the field of education, for example, the information gained through this research is applicable to meetings and events when one considers the students as meeting attendees and the learning environment and process as the meeting.

The five categories: Perceptions and Attitudes Toward Virtual and Hybrid Meetings; Comparison of Virtual and/or Hybrid Meetings with F2F Meetings; Management and Design of Virtual and/or Hybrid Meetings; Uses of Technology within Virtual and Hybrid Meetings; Specific Audiences for Virtual and Hybrid Meetings, and Examination of Virtual and Hybrid Learning Environments, allow for expansion within and outside of these areas to further enhance the body of knowledge within this area. Technology continues to evolve and while industry is working hard to keep up and implement new technologies in order to stay competitive within virtual and hybrid meetings, it is imperative the academic literature progress and add to this body of knowledge.

The majority of articles written within tourism and hospitality journals (56%) fell into the theme of "Uses of Technology within Virtual and Hybrid Meetings". When reviewing the literature solely within hospitality and tourism, it appears the research is limited which offers great opportunity within this field to expand beyond this theme in greater depth.

Qualitative research was the most popular statistical method used. Therefore, there is an opportunity for more advanced statistical methods to be used to explore this topic more fully.

Within the research many opportunities and barriers with regard to virtual and hybrid meetings were noted. Highlights of the opportunities included:

- Features and instructional design goals are important (Molesworth, 2004)
- Adult learners prefer personalization, self-direction, options and a learning community (Asburn, 2004)
- Satisfaction is influenced by online interaction (Bailey & Morais, 2004)
- Those within online communities are influenced by those around them (Chen, Chen, & Kinshuk, 2009)
- A structured agenda is important for a virtual meetings' success (Markman, 2009)
- The utilization of multimedia offers the virtual community the impact of F2F meetings (Koh & Kim, 2003)
- Social virtual worlds have a positive impact on learning activities (Jin, Wen, & Gough, 2010)

Highlights of the barriers included:

- Acceptance (Litvin, 2003)
- Participation and pleasant experiences were influenced by the skills available to undertake difficult tasks, the perception of interactivity and the recognized presence sensation (Yu-Chih, Backman, & Backman, 2010)
- Quality of material and how it is delivered (Redpath, 2010)
- F2F meetings offer more attendee engagement opportunities (Linderman, Reiners, & Steed, 2009)
- It appears to be easier to speak to individuals who are familiar on SecondLife (Linderman, Reiners, & Steed, 2009)
- Meeting professionals are hesitant to plan virtual meetings (Casanova, Kim, & Morrison, 2005)
- Virtual meetings are best suited for specific meeting types (Arnfolk & Kogg, 2003)

3.5.1 Future Research

Since research is lacking with regard to virtual and hybrid events within hospitality and tourism, one area to further explore is how the existing research outside of hospitality and tourism is applicable to this field. If existing research outside of this field is utilized, the foundation within this field can be further expanded within a much quicker timeframe. For example, the educational research discusses teachers and students, which directly relates to meetings and events via the definition of a meeting and the components included within a virtual meeting. Due to the fast-pace of technology, this research will provide a more stable foundation for knowledge advancement.

While there were a number of research studies addressing the differences of technology adaptation with regard to age, very few articles break down the adaptation process by generation. This is an area which can be further expanded as generational cohort stereotypes are noted to be at various stages with regard to technology use and savvy. Once age differences are identified with regard to virtual and hybrid meeting engagement, planners can better accommodate these audiences within their meetings and create optimal engagement opportunities for all meeting attendees.

In addition, there is a need to understand what planners are currently utilizing within their virtual and hybrid meetings in order to then determine if the audience is benefitting from their strategies. Further research should be conducted to determine what planning and management strategies are being currently utilized to then compare information with the audiences' perceptions utilizing virtual and hybrid meetings.

3.5.2 Limitations

While a thorough review of literature was conducted within and outside of hospitality and tourism, some publications may have been missed. The database searches were limited to specific keywords and finite number of databases.

CHAPTER 4

VIRTUAL AND HYBRID MEETINGS:

ACCOMMODATING BABY BOOMERS, GENERATION X AND GENERATION Y[2]

4.1 STRUCTURED ABSTRACT

Purpose: The focus of this study is to identify best practices, opportunities and barriers for planning and managing virtual and hybrid meetings for Baby Boomers, Generation X, and Generation Y.

Design/methodology/approach: Through application of the Generational Cohort Theory, a modified Delphi method was employed to identify best practices, opportunities and barriers for virtual and hybrid meetings for Baby Boomers, Generation X, and Generation Y. The Delphi method engaged an expert panel of 12 meeting professionals who participated in four rounds of surveys to identify planning recommendations.

Findings: Results indicate generational perceptions of meeting attendees are considered by meeting professionals, based on their meeting planning experience, as they plan and execute their meetings, thus supporting the Generational Cohort Theory.

Research limitations: Although an acceptable number of experts participated in this study, it may not be reflective of 'all' experts on virtual and hybrid meetings. While a number of the participants plan meetings on an international scale, participating experts

[2] Sox, C. B., Kline, S. F., Crews, T. B., Strick, S., & Campbell, J. Submitted to *International Journal of Contemporary Hospitality Management*, 2/8/14.

are from the US only. No international meeting professionals were included, which could have added to the richness of knowledge gained.

Practical implications: Academics can use this information as a platform for further research as it is added to the current and limited knowledge base in this area. Industry professionals can utilize this information in a variety of ways. For example, this information could be used to assist with creating a marketing plan for increasing attendance and audience engagement or to enhance the meeting attendee experience.

Originality/value: This paper extends the limited prior academic research currently available on virtual and hybrid meetings. Due to the rapid growth within this area of meetings and conventions, there is an immediate need for current research on this topic, as noted by both academics and industry professionals.

Keywords: Virtual Meeting, Hybrid Meeting, Generational Cohorts; Meeting Planning

Article Classification: Research Paper

4.2 INTRODUCTION

Over the past ten years, the meeting industry has been introduced to new technological advancements which have created new management opportunities. New meeting technologies, platforms, and applications continue to renovate the meeting planning process in addition to redefining the fundamental framework of meetings (Rose & Steinbrink, 2011). Not only do meeting professionals manage meetings they plan, but they are also now more involved in managing the technological components of meetings, which brings new customer demands (Smith & Kline, 2010). This has introduced the latest trend virtual and hybrid meetings. Due to this rapidly growing area, it is necessary for academia to investigate this topic.

According to the Conventions Industry Council (2011) a meeting is defined as "an event where the primary activity of the participants is to attend educational sessions, participate in discussions, social functions, or attend other organized events." Operational technology, such as presentation slideshows, whiteboards and projectors, is often utilized during face-to-face meetings (TechRepublic, 2012). Social or collaborative technology, which would be used to link a face-to-face (F2F) audience to others who are not present, is not a component of a traditional meeting. The genres of virtual and hybrid meetings are so new to the meetings industry, they are not yet found within the Convention Industry Council Accepted Practices Exchange glossary. However, the Professional Convention Management Association (PCMA) has recently engaged in the Virtual Edge Institute (VEI), an international organization committed to progressing theexpansion and utilization of virtual meeting technology. VEI has partnered with PCMA on numerous industry research efforts with regard to virtual and hybrid meetings ("PCMA Invests in Virtual and Hybrid Meetings," 2011).

Based on industry definitions put forth by VEI, a virtual meeting is a live meeting utilizing a virtual platform available through a virtual event platform company, or custom built for the client, or hosted within a virtual world, such as Second Life. PCMA has expanded the definition of virtual meetings by including technological examples for virtual meetings such as digital meetings, Webcasting, virtual events, virtual exhibitions, virtual conferences, virtual learning environments, and uninterrupted virtual business environments (PCMA, UMB Studios, & VEI, 2011). Therefore, a virtual meeting would mainly use social or collaborative technology to communicate to the attendees of the meeting.

A hybrid meeting is a meeting which includes a combination of both physical events and features of a virtual meeting which typically run concurrently and have overlapping information and interactive components (Virtual Edge Community, 2013). This includes both a F2F audience and a virtual audience (Doyle, 2013). Both the F2F and virtual attendees have the opportunity to engage within the meeting simultaneously through the hybrid format.

In a recent hybrid meeting by SAP; TechEd, Twitter and Facebook were used extensively to keep attendees updated about the meeting. Virtual elements (such as streaming live presentations) were used along with a Twitter feed to record comments and/or questions from the audience. Short sessions with experts were also streamed live from the exhibition hall to the virtual attendees (Doyle, 2009). Meeting planners who actively utilize a hybrid format have been noted as having a dedicated commitment to innovation (Zavada & Garner, 2013). This example offers a reasonable overview of the types of technology that can be included; to merge the two groups (F2F and virtual).

This research identifies best practices, opportunities and challenges pertaining to virtual and hybrid meetings. Beginning with a review of meeting practices based on the literature, a meeting professional panel reached common consent on best practices, opportunities and barriers for virtual and hybrid meetings via a modified Delphi technique. This technique was determined to be the best method to use in order to engage meeting professionals who are actively planning virtual and hybrid meetings. This study resulted in recommendations for best practices, opportunities and barriers for virtual and hybrid meetings. Specifically, recommendations were made based on how these areas accommodate the generations currently in the workforce and attending

meetings. These generations include Baby Boomers (1946–1964), Generation X (1965–1978), and Generation Y (1979–2000) (Fenich, Scott-Halsell, & Ogbeide, 2011).

4.3 Literature Review

4.3.1 Virtual and Hybrid Meetings

The business of meetings augmented spending contributions to the United States economy by $263 billion in 2009, and over 200 million people attended 2 million meetings (Sheivachman, 2011). Meetings and conventions are one of the many areas of tourism, which is steadily growing while also incorporating innovative technological advances to increase competitiveness within the market (Kim & Park, 2009). Virtual and hybrid meetings are offering alternatives for meeting planners and attendees through technological opportunities.

Virtual meeting technology is reshaping the meeting experience (Rose & Steinbrink, 2011). In fact, the Meetings, Expositions, Events and Conventions (MEEC) industry (Fenich, 2012) is greatly impacted by virtual technology, which is forecast to grow to an $18.6 billion industry by 2015 (Fryatt, Janssen, John, Mora, & Smith 2012). By integrating virtual technology into a live event, the hybrid meeting alternative is also available, now allowing a one-time F2F meeting to live on as communication and networking opportunities continue (Rose & Steinbrink, 2011).

Thoughtful attention by hospitality and tourism academics has been given to the conventions and meetings industry since the early 1990's (Lee & Back, 2005). While various aspects have been addressed, virtual and hybrid meetings are fairly new to the meetings industry, and less researched by academics.

According to the majority of meeting planners surveyed, the bulk of all future meetings will eventually move to a hybrid format (Fryatt et. al., 2012). There is a large volume of literature on virtual and hybrid meetings within industry publications, Web sites, and information prepared by private consultants and/or professional associations (Pearlman & Gates, 2010). For example, in addition to PCMA and MPI (Meeting Professionals International) recently conducting research on virtual and hybrid meetings, PhoCusWright, a travel research company, investigated the impact of technology on corporate groups within the meeting marketplace (Rose & Steinbrink, 2011).

Fryatt et al. (2012a) studied members of MPI regarding F2F and hybrid meetings. The results indicated 70% of meeting planners surveyed agreed on the importance of hybrid meetings within the future of the meeting industry, even though the hybrid format was not yet used by the majority. Technology, people, processes, and formats are among the numerous factors considered with regard to the overall success of a hybrid meeting.

Research funded through PCMA Foundation Study (Fenich, Scott-Halsell, & Ogbeide, 2012) explored the millennial generation's (also known as Generation Y) preferences within meetings and events. Generation Y participants indicated their preference for casual but structured meetings including technological components. This generation also prefers meetings that offer Internet activities. Preferences for using technology for the purposes of communication, WiFi ability, team building, and interactive games were identified. Fenich et al.'s (2012) study offered insight into the preferences of one generation within the workforce, and nicely bridged the connection to virtual and hybrid meeting platforms.

Within the PhoCusWright research, it was concluded that virtual meeting technology is redefining the function of the corporate meeting and is significantly impacting the way companies are conducting business. In fact, in 2010, seven percent of F2F meetings were replaced by virtual meetings and 20% of meetings incorporated virtual technology within their meetings. In addition, it was stated that technology will continue to redefine the face of meetings indicating the numbers mentioned will increase in the future (Rose & Steinbrink, 2011).

As technology advances, and generations continue to utilize technology at different levels (in addition to more focus being placed on virtual and hybrid meetings), there is a pressing need to extend the understanding and impact these meetings have within the meetings and conventions industry from both an academic and industry perspective, especially since there are few published academic studies within hospitality and tourism on these topics (Pearlman & Gates, 2010).

The resulting recommendations identified within this study indicate each generation is unique and should be given special considerations when included in a meeting. While some overlap within the recommendations, there were distinct considerations for each generation that should be addressed as these meetings are being planned.

Making attendees comfortable when participating in virtual meetings is a critical factor for the success of the meeting, and comfort levels of participants increase when proper training, guidelines and support are extended to attendees (Vandenberg & Reese, 2011). While these findings are not specific to generational cohorts, these findings

provide awareness, and aid meeting planners when planning and executing virtual meetings.

Pearlman and Gates (2010) explored virtual reality applications, such as Second Life, which are computer-simulated environments made to emulate the real world. This research studied the awareness, acceptance and adoption of these applications. When investigating virtual and F2F meetings, it was determined nonverbal communication (gestures, postures, etc.) was the main component distinguishing the two meeting formats. Kim and Park (2008) investigated attitudes of meeting professionals pertaining to the use of technology. This research found technology use differs depending on what type of meetings the meeting professional plans. While Rhoads (2010) concluded F2F meetings enhance attendee satisfaction, it was also proposed within this study that hybrid meetings are the best meeting format since both virtual and F2F meeting components are included.

As the preference for virtual and hybrid meetings increase, meeting planners must be knowledgeable and prepared to provide quality meetings in those formats. Even industry professionals, however, have voiced the continuing need for further research and education based on these new meeting genres (Fryatt et al., 2012; PCMA, UBM Studios, & Virtual Edge Institute, 2011).

4.3.2 Generational Cohorts

The Generational Cohort Theory (GCT), used by both marketers and academics, divide markets according to the attitudes, beliefs, values, and ideas of the generation, based on a range of birth dates (Tsui, 2001). Ryder first mentioned the GCT in 1965, but it was coined in 1977 by Inglehart (Brosdahl & Carpenter, 2011). Made popular in the

1990's by political scientist Robert Putnam, the GCT suggests experiences occurring within formative years influence life perspectives. Individuals born before 1930, for example, who experienced World War II during their formative years, tend to be more civic-minded and trusting as a result (Taylor, Funk, & Clark, 2007). In addition, Strauss and Howe (1991) promoted GCT in their book *Generations: The History of America's Future, 1584 to 2069*.

Fisher and Crabtree (2009) noted the GCT has been used in marketing and sports (Bennett & Lachowetz, 2004), consumer preferences (Carpenter & Moore, 2005), workforce productivity (Martin, 2005), and workforce management (Hill, 2002; Mujtabe & Thomas, 2005; Swearingen & Liberman, 2004). In addition, the GCT has been utilized to better identify and understand values and attitudes (Davis, 2004). Numerous researchers in the area of education have used the GCT to better understand Generation Y (Haynie, Martin, White, Norwood, & Walker, 2006) and students' learning styles (Oblinger, 2003). These examples provide a wide variety of how the GCT has been applied to broaden the knowledge of an area of study.

Generational cohorts are groups of people born within a specific date range, who have alike experiences and experience significant (emotional) occurrences during their formative age (Strauss & Howe, 1991). These similar experiences then foster individuals to think alike with regard to attitudes, beliefs and values, distinguishing them from the other generations (Brosdahl & Carpenter, 2011; Chen & Choi, 2008; Meredith, Schewe, & Karlovich, 2007). These significant events occurring within the developmental years of one's socialization, also influencing the development of one's values, beliefs and character, tend to stay consistent into adulthood (Macky, Gardner, & Forsyth, 2008).

When considering significant events that have influence within the formative years, Macky, Gardner and Forsyth (2008) noted the following examples of what could be considered: wars and their consequences (Noble & Schewe, 2003); the introduction of major new technologies; substantial changes to family and work arrangements (Layard & Mincer, 1985); significant political events; notable changes in the socioeconomic status, in addition to security issues (Egri & Ralston, 2004). While there are no undisputable certainties about any specific generation, there are certain consistent characteristics that do exist within each generation (Fisher & Crabtree, 2009).

While the GCT has been popularized within academic research, it does not go without criticism. There are differences between studies in determining the exact ranges included within each generational cohort, although the ranges are very similar (Macky, Gardner, & Forsyth, 2008). It is also questionable that all individuals included within a generational cohort will experience the same influential events similarly (Giancola, 2006). While these criticisms are considered, the GCT still continues to be noted within both academic and industry literature. This study explores best practices, opportunities and barriers for the three generational cohorts of Baby Boomers, Generation X and Generation Y.

Baby Boomers *(1946–1964),* are classically optimistic, their political views are conservative, they are active, competitive, and they concentrate on accomplishments (Fenich, Scott-Halsell, & Hashimoto, 2011; Fransden, 2009). This generation accounts for 79 million, and are responsible for the growth in the demand for consumer products, homes, cars, roads and services (Brosdahl & Carpenter, 2011). While their retirement is predicting a decline in their spending, they are currently accounting for almost $900

billion in spending (Brosdahl & Carpenter, 2011). This generation has been called materialistic, also known to support a workaholic lifestyle, and they also place great value on career and purchases (Gentry, Griggs, Deal, Mondore, & Cox, 2011). They are not usually comfortable with technology, and utilize E-mail and Internet for business purposes. The Baby Boomers tend to be less comfortable with newer technological communication opportunities such as phone texting and Skype (Fenich et. al., 2011).

Generation X (1965–1978) accounts for 45 million people and is currently the smallest generation (DeMarco, 2007). Flanked between the Baby Boomer Generation and Generation Y, Generation X makes up roughly 30% to 32% of employees within the workforce (DeMeuse, 2010). In United States history, Generation X is the most educated generation and has the highest employment percentage at 86% (Keene & Handrich, 2011). Generation X favors business communication via the Web and E-mail and is technologically assured (Reisenwitz & Iyer, 2009). Generation X expects immediate results (Fenich, Scott-Halsell, & Hashimoto, 2011). This generation's technological confidence offers planners opportunities to incorporate virtual and hybrid formats within their meetings. Within the business environment, Generation X favors coming to meetings prepared, as they prefer to be in control of their time, and they want to work with factual information (Perine, 2012).

Generation Y (1979–2000) accounts for over 70 million people globally (Fenich, Scott-Halsell, & Hashimoto, 2011; Hewlett, Sherbin, & Sumberg, 2009). This generation has used technology throughout their lives, which has promoted the preference for instant responses and immediate gratification (Perin, 2012). Generation Y is known to be optimistic and believe they can make a contribution to the world in which they live

(Tulgan, 2002). Generation Y requires feedback and depends on their peers for opinions (Reilly, 2012). This generation also demands technological advances within meetings (Fenich, Scott-Halsell, & Hashimoto, 2011). Thus, it is critical for meeting professionals to better understand and advance with Gen Y's meeting requirements (Severt, Fjelstul, & Breiter, 2013).

Since this study is based on technological use with regard to generation as it applies to virtual and hybrid meetings, Table 4.1 outlines the current usage of technology by generation based on extant literature.

Table 4.1: Technological Usage in the Workplace by Generation

Generation	Technology Use	Reference
Generation Y	Technically able	Altes, 2009
	Better educated and more technologically savvy then other generations in the workforce	Josiam, Crutsinger, Reynolds, Dotter, Thozhur, & Baum, 2009
	Greater technological skill and increased expectations from other generations	Gilburg, 2008
	Utilizing technology throughout their lives, encouraging instant responses and immediate gratification	Perine, 2012b
	Demands technological advances	Fenich, Scott-Halsell, & Hasimoto, 2011
	Grew up with video games	Tulgen, 2009
	More likely to use a laptop or mobile phone to access the Internet. They exceed older generations in the areas of communicating and gaming online.	Zickuhr, 2010
	Uses communication devices as recreational items	The Center of Generational Kinetics, 2011
Generation X	Prefers business communication via the Web and e-mail and is technologically confident	Fenich, et al., 2011; Reisenwitz & Iyer, 2009

	Still prefers phone to email	Perine, 2012a
	Open to, but does not fully embrace, IM-ing, texting, Skyping	Perine, 2012a
Baby Boomers	Somewhat comfortable with technology, but mainly use E-mail and the Internet for business.	Fenich, et al., 2011
	Less comfortable with newer technology such as phone texting and Skype	
	Use communication devices mainly for productivity	The Center of Generational Kinetics, 2011

The operational definitions for technological use by generation based on the literature review:

Baby Boomers – This generation is somewhat confident, but considered to be the least confident generation with regard to technology. They use e-mail and the Internet within the workplace but are not as comfortable using newer technology (ie. phone texting and Skype) (Fenich et al., 2011). Baby Boomers also prefer to use technological communication devices for productivity versus social purposes (The Center for Generational Kinetics, 2011).

Generation X – This Generation is considered to be technologically confident within the workplace, however, while they still prefer to use the Web and Email for communication (Fenich et al., 2011; Reisenwitz & Iyer, 2009), they also favor phone communication (Perine, 2012). In addition, they are more likely to utilize online lifestyle options (online banking and shopping) versus social communication (Perine, 2012).

Generation Y – This generation is the most technological savvy of all of the generations currently in the workforce (Altes, 2009). They use technology on a constant basis and expect instant gratification through these opportunities (Perine, 2012). Having been exposed to technology throughout their lives (gaming, cellphones, laptop computers, etc.) they require technological advances within the business environment (Fenich et al., 2011).

There is an existing perspective that Generation Y is advanced in the area of technology implementation and utilization; however, other generations are making significant gains on their progress (Zickuhr, 2010). The gap in technological usage in the workplace is one of the areas that needs further exploration.

Understanding generational highlights and technological use assists in clarifying the needs for each generations Noting the different technological tools used by each generation assists in clarifying the comfort levels and gives further insight into possible considerations that meeting planners should address throughout the planning and execution stages of a meeting.

4.4 METHODOLOGY

4.4.1 Panel Selection

This study used the Delphi method used for acquiring common consent through participation in rounds to gather input from an expert panel on a specific subject (Yousuf, 2007). The Delphi method employs a group communication process offering an effective technique to handle multifaceted issues (Stitt-Gohdes & Crews, 2004). The following factors are included within the Delphi technique: 1) individual contributions and comments on a specific subject area; 2) evaluation of group findings; 3) opportunity for

individual reconsiderations, additions and adjustments; and 4) anonymity among the panel of experts for all responses. The Delphi method has been successfully applied within government, business technology, hospitality management and education. The Delphi method offers researchers an opportunity to vary from typical survey research and allows for an extended communication process within a group of subject area experts (Stitt-Gohdes & Crews, 2004).

This study involved 22 expert meeting planners. Of those 22, 12 panel members completed all 4 rounds. Previous research notes 10 - 15 respondents as being adequate for completion of a Delphi study (Taylor-Powell, 2002; Crews, 2004). The expert panel members came from fourteen different states within the USA. The panel members were self-classified as corporate, government, association or independent planners. Within the group, 100% had planned or managed F2F meetings, 81% had planned or managed virtual meetings and 75% had planned or managed hybrid meetings.

The criteria for participation within this study included:

1. Individuals must have worked as a meeting planner within the past two years and have at least five years of meeting planning experience.
2. Individuals must have planned a virtual meeting or a hybrid event within the past two years.

This study was accomplished over an eight week period a typical timeframe for Delphi studies (Ludwig, 1997). Panel members were asked to keep, add, delete or edit recommendations throughout the first two rounds. In the third round, participants then rated the recommendations on a 5 point Likert scale (5 = Definitely Keep to 1 = Definitely Delete). In the fourth round, participants were provided with their ranking

score (5 – 1) from the third round and also provided the group mean by item. In an effort to obtain group consensus, participants then determined whether to keep or change their ranking (5 – 1) based on the group mean. Common consent was established if two thirds of the panel members rated the item with a 4 or 5 on the 5-point Likert scale (Crews, 2004). Panel members did not communicate with each other as all changes were anonymous. All rounds were dispersed through the online survey system, Qualtrics.

The Delphi method has been acknowledged as an effective and suitable method for attaining group consensus within areas of study (Crews, 2004). It is noteworthy for this study to acknowledge that technology has been referenced as an area in which the Delphi method has been successful in producing meaningful results. As virtual and hybrid meetings both utilize technological components, and technology is continuously changing, the Delphi technique is an appropriate method for attaining information within hospitality and tourism.

The Delphi method was employed for this study based on the need for up-to-date feedback from a panel of meeting professional experts who are currently planning and implementing virtual and hybrid meetings. Due to the gap of academic literature within this area, it was critical to involve industry experts. Utilizing the Delphi method to form group common consent pertaining to the planning and execution of virtual and hybrid meetings for Baby Boomers, Generation X and Generation Y resulted in recommendations for best practices, opportunities and barriers for planning virtual and hybrid meetings.

By applying the Generational Cohort Theory, three generations were targeted based on their attitudes, values, and perceptions, making each generation distinct from

one another (Brosdahl & Carpenter, 2011; Meredith, Schewe, & Karlovich, 2007). By using the Generational Cohort Theory, these groups within the workforce could be clearly categorized and studied with regard to how meeting professionals were currently accommodating them when involved with virtual or hybrid meetings.

A modified Delphi technique was utilized. The modification was providing an initial list of best practices, opportunities and barriers, based on the literature, to expert panel participants instead of simply starting the Delphi with a blank slate. This list provided to panel participants was used to begin and encourage involvement and was not considered to be inclusive. This list was garnered from publications of key associations within the industry (Sox, Kline, & Crews, 2014), and has been included within Tables 4.2, 4.3 and 4.4. The components of the initial list were selected based upon the literature. The initial list consisted of eight best practices, three opportunities and four barriers included for both virtual and hybrid meetings. This list was the same for each generation: Baby Boomers, Generation X and Generation Y.

In Round 1, panel participants were asked to keep, add, delete or edit the list of the items provided for Baby Boomers, Generation X and Generation Y. Items were divided and categorized with regard to hybrid and virtual meetings. Within each round, panel members were given the opportunity to add new answers to each section, and after Round 1, they could also add previous answers back to the list, and offer additional explanation if desired. The answers where then added to each list accordingly and reflected within the next round. The progression of the study and results for each round, by generation, can be found in Tables 4.2 (Baby Boomer), 3 (Generation X) and 4 (Generation Y).

In Round 2, the panel was given the results from Round 1 and asked to again keep, add, delete or edit from the list of items developed in Round 1. In Round 3, panel members were asked to rank the list of items resulting from Round 2 on a 5-point Likert scale (5 = Definitely Keep to 1 = Definitely Delete). In Round 4, panel members were given their chosen ranking score (1-5) from the previous round and the group mean for each item. In an effort to work toward consensus, a goal of the Delphi method, participants indicated whether to keep or change their score based on the group mean. Common consent occurred if two thirds of the panel members rated the item with a 4 or 5 on a 5-point Likert scale (5 = Definitely Keep to 1 = Definitely Delete) (Crews, 2004).

Table 4.2: Results for Each Round for Baby Boomers

Virtual Meetings	Round 1	Round 2	Round 3 with mean score	Round 4 mean score	Common Consent
VIRTUAL Meetings	Item				
Best Practices:	Offer same sessions (content) to all participants (PCMA, UMB and VEI, 2011)		Offer same sessions (content) to all participants 3.67	3.58	Offer same sessions (content) to all participants
	Offer shorter sessions to remote participants (Fryatt et al., 2012)		Offer shorter sessions to remote participants 3.27	3.33	
	Meeting format should resemble TV talk show (Fryatt et al., 2012)		Meeting format should resemble TV talk show 2.87	2.5	
	Planners should collaborate with designers of meeting (Cooney, 2011)		Planners should collaborate with designers of meeting 4.33	4.25	Planners should collaborate with designers of meeting
	Provide easy to use		Provide easy	4.42	Provide easy to use

and convenient technology (PCMA, UMB and VEI, 2011)		to use and convenient technology 4.47		and convenient technology
Include videos (PCMA, UMB and VEI, 2011)		Include videos 3.13	3.25	
Include interaction with live experts (PCMA, UMB and VEI, 2011)		Include interaction with live experts 3.60	3.67	
Include interactive experiences (PCMA, UMB and VEI, 2011)		Include interactive experiences 3.40	3.83	
	Provide general outline of session	Provide general outline of session 4.25	4.33	Provide general outline of session
	Include real-world examples	Include real-world examples 4.06	4.25	Include real-world examples
	Provide an interface that is easy and simple to use	Provide an interface that is easy and simple to use 4.40	4.33	Provide an interface that is easy and simple to use
	Make access to virtual content as simple as possible	Make access to virtual content as simple as possible 4.47	4.42	Provide an interface that is easy and simple to use
	Offer Discussion Periods			
	Ask intended audience what they need			
	Explanation of technology before and during an event			
	Provide options for those not technologically capable			
		Mix the skill level of participates so that peers are helping peers 3.60	3.58	
		Use positive	3.75	

			affirmation of participation 3.80		
			Follow up with email or surveys to determine efficacy 3.93	3.83	Follow up with email or surveys to determine efficacy
Opportunities:	Sponsorship Opportunities (Fryatt et al., 2012)		Sponsorship Opportunities 3.87	3.5	
	Audience engagement opportunities (PCMA, UMB and VEI, 2011)		Audience engagement opportunities 4.00	4.17	Audience engagement opportunities
	Interactive components (PCMA, UMB and VEI, 2011)		Interactive components 4.13	4.08	Interactive components
			Pre-event email reminders of event with directions 4.27	4.08	Pre-event email reminders of event with directions
		Skill level of participates mix so that peers are helping peers Positive affirmation of participation Follow up emails/surveys to determine efficacy			
Barriers:	Create a sense of belonging (Fryatt et al., 2012)		Create a sense of belonging 4.00	3.92	Create a sense of belonging
	Willingness to pay (Fryatt et al., 2012)				
	Perception of effectiveness(PCMA, UMB and VEI, 2011)		Perception of effectiveness 4.63	4.16	
	Attendees preoccupied with other technology (Facebook, email, shopping, etc.) (PCMA, UMB and VEI, 2011)				
		Perception of			

		value Perception of content Keeping them engaged Lack of understanding up-to-date technology		
		There is no step-by-step guide for planners on how to plan meetings 2.62	2.33	
Hybrid Meetings				
Best Practices:				
	Offer same sessions (content) to all participants	Offer same sessions (content) to all participants 4.14	4.25	Offer same sessions (content) to all participants
	Offer shorter sessions to remote participants	Offer shorter sessions to remote participants 3.47	3.67	
	Meeting format should resemble TV talk show	Meeting format should resemble TV talk show 2.79	2.17	
	Planners should collaborate with designers of meeting	Planners should collaborate with designers of meeting 4.50	4.17	Planners should collaborate with designers of meeting 4.50
	Provide easy to use and convenient technology	Provide easy to use and convenient technology 4.79	4.5	Provide easy to use and convenient technology
	Include videos	Include videos 3.79	4.08	Include videos
	Include interaction with live experts	Include interaction with live experts 4.36	3.92	Include interaction with live experts
	Include interactive experiences	Include interactive experiences	4.08	Include interactive experiences

			4.29		
		Provide general outline of session Include real-world examples	Provide general outline of session 4.67	4.42	Provide general outline of session
		Provide an interface that is easy and simple to use	Provide an interface that is easy and simple to use 4.80	4.58	Provide an interface that is easy and simple to use
		Make access to virtual content as simple as possible	Make access to virtual content as simple as possible 4.79	4.66	Make access to virtual content as simple as possible
		Offer Discussion Periods	Offer Discussion Periods 4.21	4.25	Offer Discussion Periods
		Ask intended audience what they need			
		Explanation of technology before and during an event			
		Provide options for those not technologically capable			
		Provide general outline of session			
		Use virtual emcee to connect with virtual			
			Record learning opportunities in a booklet to be used for planning next meeting 3.71	3.92	Record learning opportunities in a booklet to be used for planning next meeting
Opportunities:	Sponsorship Opportunities				
	Audience engagement opportunities		Audience engagement opportunities 4.47	4.25	Audience engagement opportunities
	Interactive components		Interactive components	4.25	Interactive components

			4.29		
		Incorporate use of social media			
		Provide opportunity to test technology			
		Agenda Collaboration			
		Provide job leads/job fair/career opportunities			
		Allow vendors to introduce new items			
		Introduce a project that follows the hybrid meetings			
Barriers:	Create a sense of belonging		Create a sense of belonging 4.20	4.00	Create a sense of belonging
	Willingness to pay		Willingness to pay 3.50	3.75	Willingness to pay
	Perception of effectiveness		Perception of effectiveness 4.53	4.08	Perception of effectiveness
	Attendees preoccupied with other technology (Facebook, email, shopping, etc.)		Attendees preoccupied with other technology (Facebook, email, shopping, etc.) 2.80	3.25	
		Perception of value			
		Perception of content			
		Keeping them engaged			
		Lack of understanding of up-to-date technology			

Table 4.3: Results for Each Round for Generation X

Virtual	Round 1	Round 2	Round 3 with	Round	Common Consent

Meetings			mean score	4 mean score	
VIRTUAL Meetings	Item				
Best Practices:	Offer same sessions (content) to all participants		Offer same sessions (content) to all participants 3.47	3.25	
	Offer shorter sessions to remote participants		Offer shorter sessions to remote participants 3.67	3.42	
	Meeting format should resemble TV talk show		Meeting format should resemble TV talk show 2.47	2.42	
	Planners should collaborate with designers of meeting	Planners should collaborate with designers of meeting	Planners should collaborate with designers of meeting 4.60	4.33	Planners should collaborate with designers of meeting
	Provide easy to use and convenient technology	Provide easy to use and convenient technology			
	Include videos		Include videos 3.33	3.08	
	Include interaction with live experts		Include interaction with live experts 4.20	4.00	Include interaction with live experts
	Include interactive experiences		Include interactive experiences 4.64	4.17	Include interactive experiences
		Include real-world examples			
		Offer Discussion Periods			
		Provide access to advanced technologies			
		Include opportunities for advanced learning			
		Offer team building opportunities			

		Include real time tweets, texts, etc. Give advance notice for upcoming sessions	Add some pre-work to the session to judge skill level 3.53	3.33	
Opportunities:	Sponsorship Opportunities		Sponsorship Opportunities 3.53	3.33	
	Audience engagement opportunities	Audience engagement opportunities			
	Interactive components		Interactive components 4.53	4.42	Interactive components
		Gamification (include gaming opportunities Embed social media within virtual platform Offer online training opportunities Include interactive promotions Provide networking opportunities Provide career advancement opportunities Keep audience engaged Include activities with Ipads Include opportunities for audience to			

		vate via phones (audience response opportunities			
			In advance, review materials that will be presented 4.00	4.00	In advance, review materials that will be presented
Barriers:	Create a sense of belonging		Create a sense of belonging 3.40	3.5	
	Willingness to pay				
	Perception of effectiveness		Perception of effectiveness 4.14	4.00	Perception of effectiveness
	Attendees preoccupied with other technology (Facebook, email, shopping, etc.)		Attendees preoccupied with other technology (Facebook, email, shopping, etc.) 3.40	3.25	
		Perception of value			
		Perception of organization (how well the meeting is organized)			
		Perception of time worthiness			
		Lack of Multitasking with technology			
Hybrid Meetings					
Best Practices:	Offer same sessions (content) to all participants				
	Offer shorter sessions to remote participants		Offer shorter sessions to remote participants 4.13	4.25	Offer shorter sessions to remote participants
	Meeting format should resemble TV talk show				
	Planners should collaborate with designers of meeting	Planners should collaborate with designers	Planners should collaborate with designers of meeting 4.67	4.50	Planners should collaborate with designers of meeting

		of meeting			
	Provide easy to use and convenient technology	Provide easy to use and convenient technology	Provide easy to use and convenient technology 4.60	4.50	Provide easy to use and convenient technology
	Include videos				
	Include interaction with live experts	Include interaction with live experts			
	Include interactive experiences	Include interactive experiences			
		Provide access to advanced technology			
		Include opportunities for advanced learning			
		Include real-world examples	Include real-world examples 4.67	4.75	Include real-world examples
		Offer Discussion Periods			
		Include real time tweets, texts, etc.			
		Offer team building opportunities			
		Give advanced notice for upcoming sessions			
Opportunities:	Sponsorship Opportunities				
	Audience engagement opportunities	Audience engagement opportunities	Audience engagement opportunities 4.40	4.33	Audience engagement opportunities
	Interactive components		Interactive components 4.40	4.33	Interactive components
		Gamification (include gaming opportunities)			
		Embed social media within virtual platform			
		Offer online training opportunities			

		Include interactive promotions Provide networking opportunities Provide career advancement opportunities			
		Keep audience engaged Include activities with Ipads Include opportunities for audience via phones (audience response systems)	Keep audience engaged 4.67	4.42	Keep audience engaged
			Offer more hands-on application opportunities 4.53	4.42	Offer more hands-on application opportunities
Barriers:	Create a sense of belonging		Create a sense of belonging 4.00	4.08	Create a sense of belonging
	Willingness to pay		Willingness to pay 3.67	3.75	
	Perception of effectiveness		Perception of effectiveness 4.43	4.08	Perception of effectiveness
	Attendees preoccupied with other technology (Facebook, email, shopping, etc.)		Attendees preoccupied with other technology (Facebook, email, shopping, etc.) 3.73	3.58	
		Perception of value Perception of organization (how well the meeting is organized)			
		Perception of time worthiness Multitasking with technology	Perception of time worthiness 4.53	4.33	Perception of time worthiness

Table 4.4: Results for Each Round for Generation Y

Virtual Meetings	Round 1	Round 2	Round 3 with mean score	Round 4 mean score	Common Consent
VIRTUAL Meetings	Item				
Best Practices:	Offer same sessions (content) to all participants		Offer same sessions (content) to all participants 2.87	2.75	
	Offer shorter sessions to remote participants		Offer shorter sessions to remote participants 4.07	3.75	Offer shorter sessions to remote participants
	Meeting format should resemble TV talk show				
	Planners should collaborate with designers of meeting	Planners should collaborate with designers of meeting			
	Provide easy to use and convenient technology		Provide easy to use and convenient technology 4.40	4.17	Provide easy to use and convenient technology
	Include videos		Include videos 3.73	3.41	
	Include interaction with live experts		Include interaction with live experts 3.87	3.83	Include interaction with live experts
	Include interactive experiences		Include interactive experiences 4.47	4.25	Include interactive experiences
		Offer real-world examples			
		Include social networking component		4.58	Include social networking component
		Gamification (include gaming opportunity)			
		Include more			

		challenging technology opportunities Provide general outline of the session			
			Provide challenges to help participants stay focused 4.67	4.58	Provide challenges to help participants stay focused
			Allow participants to share what they have learned as affirmation that the meeting is on track 4.47	4.25	Allow participants to share what they have learned as affirmation that the meeting is on track
Opportunities:	Sponsorship Opportunities Audience engagement opportunities		Audience engagement opportunities 4.86	4.67	Audience engagement opportunities
	Interactive components		Interactive components 4.93	4.75	Interactive components
			Gamification (include gaming opportunities) 4.13	3.67	Gamification (include gaming opportunity)
		Gamification (include gaming opportunities) Product Testing Offer networking opportunities Include opportunities to keep them engaged			
			Include opportunities to keep them engaged 4.80	4.33	Include opportunities to keep them engaged
			Creative component for participants to show their knowledge 4.67	4.75	Creative component for participants to show their knowledge
			Teach the teacher opportunities 4.13	4.33	Teach the teacher opportunities
			Grades or certificates for participation	4.17	Grades or certificates for participation

			4.13		
Barriers:	Create a sense of belonging		Create a sense of belonging 3.53	3.50	
	Willingness to pay				
	Perception of effectiveness		Perception of effectiveness 4.00	3.83	Perception of effectiveness
	Attendees preoccupied with other technology (Facebook, email, shopping, etc.)		Attendees preoccupied with other technology (Facebook, email, shopping, etc.) 4.00	3.58	Attendees preoccupied with other technology (Facebook, email, shopping, etc.)
		Perception of fun			
		Perception of the use of technology			
		Keeping it engaging enough			
		Keeping it challenging enough			
Hybrid Meetings					
Best Practices:	Offer same sessions (content) to all participants		Offer same sessions (content) to all participants 4.07	4.08	Offer same sessions (content) to all participants
	Offer shorter sessions to remote participants		Offer shorter sessions to remote participants 3.67	3.58	Offer shorter sessions to remote participants
	Meeting format should resemble TV talk show				
	Planners should collaborate with designers of meeting		Planners should collaborate with designers of meeting 4.67	4.5	Planners should collaborate with designers of meeting
	Provide easy to use and convenient technology		Provide easy to use and convenient technology 4.47	4.25	Provide easy to use and convenient technology
	Include videos		Include videos 3.60	3.67	Include videos
	Include interaction with		Include interaction with	3.67	

	live experts		live experts 4.07		
	Include interactive experiences			4.25	Include interactive experiences
		Provide general outline of session			
		Include social networking component	Include social networking component 4.73	4.58	Include social networking component
		Offer real-world examples			
		Gamification (include gaming opportunities)			
		Include more challenging technological opportunities.	Include more challenging technological opportunities. 4.67	4.58	Include more challenging technological opportunities
			Provide positive feedback for participation 4.57		
Opportunities:	Sponsorship Opportunities				
	Audience engagement opportunities				
	Interactive components		Interactive components 4.79	4.67	Interactive components
		Gamification (include gaming opportunities)			
		Product testing			
		Offer networking opportunities			
		Include opportunities to keep them engaged	Include opportunities to keep them engaged 4.86	4.58	Include opportunities to keep them engaged
			Include challenging but solvable games within material 4.47	4.42	Include challenging but solvable games within material
Barriers:	Create a sense of belonging		Create a sense of belonging	3.83	Create a sense of belonging

		4.07		
Willingness to pay		Willingness to pay 3.73	3.58	
Perception of effectiveness		Perception of effectiveness 4.20	4.08	Perception of effectiveness
Attendees preoccupied with other technology (Facebook, email, shopping, etc.)		Attendees preoccupied with other technology (Facebook, email, shopping, etc.) 4.27	3.92	Attendees preoccupied with other technology (Facebook, email, shopping, etc.)
	Perception of fun	Perception of fun 4.33	4.33	Perception of fun
	Perception of the use of technology			
	Keeping it engaging enough			
	Keeping it challenging enough	Keeping it challenging enough 4.40	4.33	Keeping it challenging enough

4.5 RESULTS

Throughout the modified Delphi, 12 expert panel members participated in 4 rounds of feedback to determine best practices, opportunities and barriers when planning and managing virtual and hybrid meetings for Baby Boomers, Generation X and Generation Y. The resulting common consent list, partially noted in Sox, Kline, and Crews (2014), is found in Table 4.5; sorted by highest to lowest mean scores in each area.

Table 4.5: Common Consent Results in Order of Highest Mean Score for Each Generation

Virtual	Items for Baby Boomers	Mean Score
Best Practices	Make access to virtual content as simple as possible	4.42
	Provide easy to use and convenient technology	4.42
	Provide general outline of session	4.33
	Provide an interface that is easy and simple to use	4.33
	Include real-world examples	4.25
	Planners should collaborate with content designers of meeting	4.25
	Follow up with email or survey to determine efficacy	3.83
	Offer same session (content) to all participants	3.58

Opportunities	Audience engagement opportunities	4.17
	Interactive components	4.08
	Pre-event email reminders with directions	4.08
Barriers	Perception of effectiveness	4.17
	Create a sense of belonging	3.91
Hybrid	Items for Baby Boomers	Mean Score
Best Practices	Make access to virtual content as simple as possible	4.67
	Provide an interface that is easy and simple to use	4.58
	Provide easy to use and convenient technology	4.5
	Provide general outline of session	4.42
	Offer discussion periods	4.25
	Offer same sessions (content) to all participants	4.25
	Planners should collaborate with content designers of meeting	4.16
	Include videos	4.08
	Include interactive experiences	4.08
	Include interaction with live experts	3.92
	Record learning opportunities in a booklet to be used for planning next year's meting	3.92
Opportunities	Audience engagement opportunities	4.25
	Interactive components	4.25
Barriers	Perception of effectiveness	4.08
	Create a sense of belonging	4.00
	Willingness to pay	3.75
Virtual	Items for Generation X	Mean Score
Best Practices	Planners should collaborate with content designers of meeting	4.33
	Include interactive experiences	4.16
	Include interaction with live experts	4.00
Opportunities	Include interactive components	4.42
	In advance, review materials that will be presented	4.00
Barriers	Perception of effectiveness	4.00
Hybrid	Items for Generation X	Mean Score
Best Practices	Include real world examples	4.75
	Provide easy to use and convenient technology	4.50
	Planners should collaborate with content designers of meeting	4.50
	Offer shorter sessions to remote participants	4.25
Opportunities	Keep audience engaged	4.42
	Offer more hands-on application opportunities	4.42
	Include interactive components	4.33
	Audience engagement opportunities	4.33
Barriers	Perception of time worthiness	4.33
	Create a Sense of belonging	4.08
	Perception of effectiveness	4.08
Virtual Meeting	Items for Gen Y	Mean Score
Best Practices	Include social networking components	4.58
	Provide challenges to help participants stay focused	4.58
	Include interactive experiences	4.25
	Allow participants to share what they have learned as affirmation that the meeting is on track	4.25
	Provide easy to use and convenient technology	4.17
	Include interaction with live experts	3.83
	Offer shorter sessions to remote participants	3.75
Opportunities	Interactive components	4.75
	Creative components for participants to show their	4.75

	knowledge	
	Include audience engagement opportunities	4.67
	Include opportunities to keep participant (individually) engaged	4.33
	Teach the teacher opportunities	4.33
	Grades or certificates for participation	4.17
	Gamification (include gaming within meeting)	3.67
Barriers	Perception of effectiveness	3.84
	Attendees preoccupied with technology (Facebook, email, shopping, etc.)	3.58
Hybrid Meeting	Items for Gen Y	Mean Score
Best Practices	Include social networking components	4.58
	Provide positive feedback for participants	4.58
	Planners should collaborate with designers of meetings	4.50
	Include technological challenges within material	4.50
	Provide easy to use and convenient technology	4.25
	Include interactive experiences	4.25
	Offer same sessions to all participants	4.08
	Include videos	3.67
	Offer shorter sessions to remote participants	3.58
Opportunities	Include interactive components	4.67
	Include opportunities to keep audience engaged	4.58
	Include challenging but solvable games within material	4.42
Barriers	Perception of fun	4.33
	Keep material challenging enough	4.33
	Perception of effectiveness	4.08
	Attendees preoccupied with technology (Facebook, email, shopping, etc.)	3.92
	Create a sense of belonging	3.83

For virtual and hybrid meetings, the top two best practices for Baby Boomers focused on making technology easy to use, simple and convenient. The focus in virtual and hybrid for this generation, regarding opportunities, was in the area of engagement (i.e., audience engagement, interactive components, etc.). With regard to barriers, the top recommendation was producing the perception of effectiveness. There were a number of overlaps for virtual and hybrid meetings for this cohort as seen in Table 4.5.

The meeting planner's findings on Generation X resulted in the fewest recommendations. The top recommendation for virtual meetings is that planners should collaborate with content designers of meetings. For hybrid meetings, the top recommendation was to include real-world examples. The opportunities for both genres

of meetings focused on engagement and interactive components. The barrier for virtual meetings was perception of effectiveness, but for hybrid meetings, it was perception of time worthiness.

The meeting planners top recommendations for Generation Y was to include social networking components. Opportunities for Generation Y included interactive components in both meeting genres. However, in the virtual category, there were positive reinforcement, and teach the teacher recommendations not found on the other cohort lists. For barriers, perception of fun was the top recommendation for hybrid meetings. For virtual and hybrid meetings, the common barrier of "attendees preoccupied with technology (Facebook, E-mail, shopping, etc.)" was noted by the meeting professionals.

4.6 Discussion

Based on the results of the study, meeting professionals do consider generational differences when planning and executing virtual and hybrid meetings. The differences considered for each generational cohort support the GCT and allow for meeting professionals to make decisions based on the generational cohorts represented within their meetings. For Baby Boomers, the top two best practices for virtual and hybrid meetings focused on making technology easy to use, simple and convenient which is a direct reflection of the perception of Baby Boomers not being comfortable with technology (Fenich et al., 2011). The top recommendation to consider as a barrier was producing the perception of effectiveness correlating with this generation placing great value on work (Gentry, Griggs, Deal, Mondore, & Cox, 2011). There were a number of similarities for virtual and hybrid meetings for this cohort that may be due to the lack of comfort with the technological components included in each meeting type.

The meeting planner's findings on Generation X resulted in the fewest recommendations. This may be due to the fact that Generation X is the smallest Generation and is sometimes overlooked (DeMarco, 2007). The top recommendation for virtual meetings is that planners should collaborate with content designers of meetings which correlate with the perception of this cohort's desire for preparation before meetings (Perine, 2012). For hybrid meetings, the top recommendation was to include real-world examples, which relates to this generation's desire to work with factual information (Perine, 2012). The barrier for virtual meetings was perception of effectiveness, but for hybrid meetings, it was perception of time worthiness which correlates with their preference of being in control of their time (Perine, 2012).

The meeting planners top recommendations for Generation Y was to include social networking components, which supports this generations' reliance on technology; and that they thrive on peer opinion (Reilly, 2012). In the virtual category, there were positive reinforcement, and teach the teacher recommendations supporting their desire for positive reinforcement and immediate gratification (Perine, 2012). For barriers, perception of fun was the top recommendation for hybrid meetings. Generation Y has a preference for gaming and entertainment, in turn, they want a meeting to be fun, which could be expected from this cohort (Reilly, 2012).

For virtual and hybrid meetings, the common barrier of "attendees preoccupied with technology (Facebook, E-mail, shopping, etc.)" was listed. When referring back to the Generational Cohort Theory and the experiences that Generation Y has been exposed to during their lifetime, technology has been a key component that they have participated in throughout their lives. This preoccupation noted by the meeting planners is quite

possibly resulting from their total immersion through their life experiences. Since the other generations preceding Generation Y have not experienced this total immersion, this may not be as typical for them.

This study is the first study of a series of studies pertaining to the planning and management of hybrid and virtual meetings. This study provided an opportunity to gain the insights and strategies of meeting planners and to determine how they were accommodating the wide age-range of attendees for virtual and hybrid meetings.

4.7 Conclusion

Through the application of the GCT, the three generational cohorts of Baby Boomers, Generation X and Generation Y were identified for this study. The best practices, opportunities and barriers with regard to planning virtual and hybrid meetings for these generational cohorts were identified in this study, and were developed through common consent of an expert panel of meeting professionals through the use of The Delphi technique. While the resulting common consent list includes some similarities and overlap between the recommendations for planning virtual and hybrid meetings, there are also noteworthy differences with regard to meeting type and generational cohort that should be taken into consideration when planning meetings for these audiences. The findings of this study appear to support the Generational Cohort Theory, which states those who were born within common age ranges tend to think similarly due to similar life experiences. It is evident from this Delphi study that it is necessary for meeting planners to make different accommodations within virtual and hybrid meetings based on how each generation has adapted to and uses technology.

With the ever-evolving implementation of technology within meetings and the rising standards and expectations of meeting audiences, meeting professionals must be aware of how these generations are applying technology to these meetings. Virtual and hybrid meetings offer endless opportunities for engagement, networking and experiences. However, how each generation is embracing technology should be considered as these opportunities are presented. Meeting professionals should be aware of this changing situation so they can continually upgrade their meetings and engage their meeting attendees at the highest level based on their technological skill and comfort point.

This research can be of benefit to both academics and industry professionals. Academics can use this information as it is added to the current knowledge base with regard to virtual and hybrid meetings. Using this information as a platform for further research can assist in advancing the knowledge within this area.

Industry professionals can utilize this information in a variety of ways advantageous to them. The results of this research, for example, could be used to assist with the development of a marketing plan for increasing attendance and audience engagement within virtual and hybrid meetings. Meeting professionals could consider this information during the planning and execution of virtual and hybrid meetings to enhance the meeting attendee experience. This information could also be used to gage technological progress within this area of study from a generational perspective as technology advances and generations continue to close the gap with regard to technological usage.

4.7.1 Limitations

Although an acceptable number of experts participated in this study, it may not be reflective of 'all' experts on virtual and hybrid meetings. While numerous members of the panel plan meetings on an international scale, panel members are from the United States only. On this note, no international meeting professionals were included within this study, which could have added to the richness of knowledge gained through this Delphi process.

4.7.2 Future Research

While this study provides valuable insights into how meeting professionals are accommodating meeting attendees, future research should now further use these finding to address the needs of the attendees from their perspective. Are the meeting planners accommodating these generations appropriately? Are there missed opportunities that require the attention of meeting professionals? By surveying virtual and hybrid meeting attendees, these questions could be answered.

In addition, future research should focus on the education field. How can these findings be incorporated into a meeting planning curriculum? How can university curriculum keep up with such a fast, changing work environment; and ever-changing customer demand situation? These findings, and future findings, should be incorporated into class curriculum so hospitality programs are offering the most current information possible to meeting planners on the brink of their careers.

CHAPTER 5

TECHNOLOGY USE WITHIN MEETINGS: EXPLORING THE GENERATIONAL PERSPECTIVE THROUGH PARTIAL LEAST SQUARES[3]

5.1 ABSTRACT

This research examines Generational Formative Referents as factors that influence meeting attendees' adoption and technology use within virtual and hybrid meetings, and tests the applicability of the Technology Acceptance Model (TAM) as presented by Davis (1986). Underpinning the Generational Cohort Theory (GCT) by including generational formative referents, this study is the first within hospitality and tourism studies to investigate a theoretical model on generational technology use within meetings. This study investigates how attendees' experiences from their respective formative years (i.e., generational formative referents), the basis of the GCT, influence the TAM model constructs. A Partial Least Squares analysis test is utilized to determine technology acceptance within meetings across three generations: Baby Boomers (1946–1964), Generation X (1965–1978), and Generation Y (1979–2000). The findings add to the limited foundation for scholars wanting to further analyze technology use within meetings, and for those interested in generational influences. This study provides useful

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information to marketers and planners to increase meeting attendance, enhance attendee satisfaction and further explore meeting engagement opportunities.

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5.2 Introduction

The Economic Significance of Meetings to the U.S. Economy study reported 1.83 million meetings in 2012 were held in the United States (US), contributing over $115 billion to the U.S. gross domestic product, with a total economic output of $770.4 billion (PricewaterhouseCoopers LLP., 2014). However, the 2014 Meetings Budget Forecast indicates meeting budgets will experience a decrease throughout 2014. Recently reported industry research found while face-to-face (F2F) meetings are expected to decrease, virtual and hybrid meetings are expected to continue to increase (Jakobson, 2013). Cost appears to be one of the driving factors for virtual and hybrid meetings (Fryatt, Mora, Janssen, John, & Smith, 2012; Smith, 2012). Cost forF2F meetings include items such as fuel expenses, staff, accommodations and meals (Dixon, Behringer, & Mulligan, 2013). Recent research reported the average cost for one person to travel seven hours for a four-hour meeting was $1,365.21 (Infocom, 2012). Technology within the meetings industry offers alternatives to traditional F2F meetings, allowing companies to save money and individuals to get more quality information from the meetings they attend (Dixon et al., 2013).

Companies are acknowledging how technology can enhance the meetings being planned and are currently investing money in technology, working to give meeting attendees what they need while also focusing on increasing attendance (Dixon et al.,

2013). Technology, however, is continuously changing, along with the skills of meeting planners and attendees. Technology is being utilized more during the planning and implementation stages of the meeting; therefore, technology is continuously gaining importance (Kim & Park, 2009). In fact, technology is currently changing the way meetings are planned, managed, and experienced. With virtual meeting technology (included within both virtual and hybrid meetings) now including social media and mobile applications (along with other new and cutting-edge technology), the overall meeting experience is continuing to evolve (Rose & Steinbrink, 2011).

A meeting is "an event where the primary activity of the participants is to attend educational sessions, participate in discussions, social functions, or attend other organized events" (Conventions Industry Council, 2011). Operational technology (e.g., slideshows, whiteboards and projectors) is frequently used during F2F meetings (TechRepublic, 2012). Virtual meetings are "digital events, meeting and learning technologies that include: Webcasting (streaming media); virtual environments (2D and 3D) such as virtual events, virtual trade shows, conferences, campuses, learning environments; and perpetual (365 days per year) business environments" (PCMA, UMB Studios, & VEI, 2011, p. 3). A hybrid event "involves a mixture of physical events with elements of a virtual event usually running simultaneously and with overlapping content and interactive elements" (Doyle, 2013, p. 1).

Within virtual and hybrid meetings, meeting professionals are (or will soon be) faced with the latest technological advancements, including opportunities such as:

- Telepresence (e.g., allowing a person to appear in another location)

- Haptic Technology (e.g., enabling attendees to engage with virtual devices through touch)
- Mobile Devices (e.g., engaging attendees through use of Smartphone)
- Targeted Audio (e.g., direct and targeted sound allowing individual attendees to receive specific messages)
- Speech and Voice Recognition (e.g., allowing attendees to experience real-time translation)
- Artificial Intelligence (e.g., providing attendees with more intuitive computer interface opportunities)
- Robotics (e.g., utilizing 3-D avatars to communicate with attendees replacing graphical signage)
- Display Technologies (e.g., engaging attendees within pseudo – 3D meeting experiences) (Dixon et al., 2013)

With meeting budgets decreasing, virtual and hybrid meetings increasing, and technology evolving at a rapid pace, how can meeting professionals continue to increase attendance, stimulate engagement and stay up-to-date with the needs of meeting attendees? One current trend within the meetings industry is acknowledging and addressing the wants and needs of meeting attendees from a generational perspective (MPI, 2010; Fenich, 2015). As technology advances and technological opportunities become more available to meeting planners, creating meetings that appeal to all of the generations within the workforce are necessary for viability (Fjelstul, Severt, & Breiter, 2012). In fact, industry organizations, associations and academic researchers have just

recently started investigating a variety of aspects with regard to generational cohort engagement within meetings and events (Severt, Fjelstul, & Breiter, 2013).

While extant literature has explored previously conceived generational differences pertaining to utilizing technology within meetings, no theoretical model has been investigated to substantiate generational formative referents' (the core of the GCT) impact on technology use within meetings. While the study of virtual and hybrid meetings is fairly new due to the recent introduction of these meeting genres, the extant literature is limited and lacking tested theoretical framework, thus creating a foundational gap within the hospitality and tourism literature.

Further justifying the importance of this study is the continued questioning of theoretical and philosophical development of hospitality management research (Lugosi, Lynch, & Morrison, 2009). By testing a theoretical framework, both structure and boundaries reflecting this paradigm can be addressed, in addition to offering a better understanding of the topic and identifying future research areas. The framework for this research takes on a positivist approach as it helps to identify patterns within behavior thus allowing for the opportunity of change (Ennis, 1999; Jones, 2004). While this may seem overly apparent, it is necessary to acknowledge the foundational contribution of this research to this area of study. Without a tested theoretical framework, the studies exploring this topic will continue to be questioned within and outside of hospitality and tourism studies.

Within the meeting context, and through testing the applicability of Technology Acceptance Model (TAM) with regard to generational formative referents, this research provides the groundwork for current and additional generational research within the study

of meetings. It also provides information to allow meeting professionals to better focus on increasing meeting attendance, engaging meeting attendees, and employing cutting-edge technological opportunities. This study is designed to investigate meeting attendees' acceptance of meeting technology within the realm of the Generational Cohort Theory (GCT). By extending the TAM to include generational formative referents, this research will explore the influence of attendees' experiences from their respective formative years (i.e. generational formative referents), the basis of the GCT, with regard to the TAM model constructs across three generations: (Baby Boomers (1946–1964), Generation X (1965–1978), and Generation Y (1979–2000)).

5.3 Literature Review

5.3.1 Virtual and Hybrid Meetings

The virtual and hybrid meeting market is projected to increase to an $18.6 billion dollar industry by 2015 (Professional Convention Management Association, UMB Studios, & Virtual Edge Institute, 2011). As technology continues to evolve, so do the requirements of meeting professionals (Smith & Kline, 2010). Research from the Professional Convention Management Association (PCMA), UBM Studios and Virtual Edge Institute note virtual meetings have frequently been viewed within the meeting industry as the favored meeting platform (versus in-person meetings). Hybrid meetings, however, merge the best of F2F meetings and virtual meetings. Meeting Planners International (MPI) Foundation conducted research indicating hybrid meetings were still-emerging but quickly gaining momentum. Industry professionals have acknowledged the hybrid platform as the future of the meeting industry.

Virtual and hybrid meetings are still considered new meeting genres within the meeting industry and as such, there is limited literature currently available specifically on these meeting types. The majority of literature on virtual (and hybrid) meetings is located within trade publications, industry Web sites and through private consultants (Pearlman & Gates, 2010). There also appears to be a gap in the literature pertaining to generational studies and their influence and relationship to meetings (Fenich, Scott-Halsell, & Hashimoto, 2011). While there are a few studies in the extant hospitality literature focusing on specific generations, and some mentioning all three generations, none thoroughly explores all three generations (Baby Boomer, Generation X and Generation Y) simultaneously with regard to meetings and events. In addition, no hospitality literature could be found utilizing a theoretical model to test for generational referents with regard to meetings.

5.3.2 The Generational Cohort Theory

The Generational Cohort Theory (GCT) was initiated by Ryder (1965) and has been used within the areas of education and marketing to categorize markets via values, attitudes, ideas and acceptance, based on years of age (Tsui, 2001). Generational cohorts are individuals born within a particular time range who have experienced similar events throughout their lives and have experienced notable significant, emotional and defining happenings during their formative years (Strauss & Howe, 1991). These formative experiences, also called formative referents, often create like attitudes, values, and perceptions, thus making them unique from other generational cohorts (Brosdahl & Carpenter, 2011; Meredith, Schewe, & Karlovich, 2007).

According to the GCT, these views and values which have been created during these formative years tend to remain relatively stable throughout one's life, which then determine and shape how one interacts with the world around them (Codrington, 2011). These values, therefore, offer cues for behavior. By confirming and acknowledging the existence and impact of these values and defining moments developed during a cohort's formative years, marketers and meeting professionals can then use this information as a reliable way to connect with their targeted audience (Meredith et al., 2002).

While acknowledging a difference exists with regard to exact generational cohort age ranges amongst studies, it is also noted that the spanning dates and age ranges reported tend to be very similar (Macky, Gardner, & Forsyth, 2008). Currently, four generations exist within the United States Workforce (Generation Y at 33%, Generation X at 32%, Baby Boomers at 31% and Traditionalists at 4%). Traditionalists include those born before 1946 (Harter & Agrawal, 2014). This research focuses on the three main generations included in the workplace: Baby Boomers, Generation X and Generation Y.

From a global perspective, it is true that different countries have experienced different events at different times, but some events have made an impression across the globe. Few countries, for example, missed the impact of the Great Depression and Second World War. Just reviewing from the 1980's onward, numerous era-defining events shared around the world can be identified. Examples include the bombing of Pan Am flight 103 over Lockerbie, Scotland, Tiananmen Square China, the Berlin Wall coming down in Germany, the banning of the Communist Party in Russia, the release from jail of Nelson Mandela, and the invention of HTTP (the foundation of the World Wide Web) (Codrington, 2011). These types of events can assist with applying the GCT

when including different countries. In addition, it can also be noted the value systems of younger cohorts are converging worldwide. Due to the globalization of communication and the ease and affordability of transportation, the values of younger generations around the world are becoming increasingly similar (Meredith et al., 2002).

Baby Boomers (1946 – 1964) grew up during a liberal time known for "sex, drugs and rock 'n' roll" (Codrington, 2011, p. 1). This postwar generation was given grand visions to energize the nation. Rebelling in the 1960's and 70s, this generation initiated anti-war efforts in addition to other activist undertakings. Boomer politicians were the youngest in history (Codrington, 2011). This generation tends to be optimistic, conservative, active, competitive, and they focus on accomplishments (Fenich, Scott-Halsell, & Hashimoto, 2011; Fransden, 2009). Baby Boomers are notorious for their intense work ethic, drive and focus which makes retirement difficult for them to envision (Harter & Agrawal, 2014). Some of their guiding values include: idealism, image, personal growth, team orientation, self-expression, youth, nostalgia, and health and wellness (Codrington, 2011).

Baby Boomers tend to not be comfortable with new technology, and still rely on E-mail and Internet to do business. They are also usually less comfortable with newer communication technology (e.g. phone texting and Skype) (Fenich et al., 2011). While reaching retirement eligibility, this generation is fading out of the workplace more slowly than previous generations (Strohm, 2014). This generation is over 79 million strong and has been the dominant generation for over the past three decades (Brosdahl & Carpenter, 2011; Strohm, 2014).

Generation X (1965–1978) is marked by the first children of divorced parents, often growing up as latchkey kids. They experienced the Vietnam War, the energy crisis and witnessed the collapse of communism. They were the first generation educated on AIDS and have gotten married and had children later in life (Codrington, 2011). They are nestled between Baby Boomers and Generation Y, and contribute 30% to 32% of employees to the labor force (DeMeuse, 2010). They are the most educated generation with the highest employment percentage at 86% (Keene & Handrich, 2011). When compared to other generations, those within Generation X are considered to be the most effective managers. They tend to be high revenue generators, can easily adapt to work situations, engage in active problem solving and excel at team collaboration (Giang, 2013). Some of their defining values include: choice, global awareness, change, techno-literacy, individualism, lifelong learning, informality, self-reliance, and not scared of failure (Codrington, 2011).

Generation X tends to favor business communication via the Web and E-mail, is technologically competent (Reisenwitz & Iyer, 2009) and expects immediate results (Fenich, Scott-Halsell, & Hashimoto, 2011). Within the workplace, Generation X prefers being prepared, as they like to control their time. They work best with factual information (Perine, 2012). When at work, they struggle with implementing measures of cost effectiveness (Giang, 2013). Generation X consists of 45 million people and is the smallest generation in the workforce (DeMarco, 2007).

Generation Y (1979–2000) has participated in lifelong technology, offering new opportunities for globalization, and exposure to other cultures. While being noted as the most protected children in history, they are also known for growing up too quickly

(Codrington, 2011). Their use of technology has created their need for instant response and immediate gratification (Perin, 2012). They tend to be optimistic and strive to make contributions to their surroundings (Tulgan, 2002), although they are also somewhat overly confident (Congrington, 2011). Due to their use of social technology, Generation Y relies on feedback and thrives on peer opinions (Reilly, 2012). They are savvy using social media as leverage and tend to be very enthusiastic about their jobs (Harter & Agrawal, 2014). They also grew up assisting their parents with technology (Codrington, 2011). Once a project is finished, those in this generation will not easily readdress it (Strohm, 2014).

Generation Y expects and demands technological advances within the meeting environment (Fenich, Scott-Halsell, & Hashimoto, 2011). Generation Y individuals are not good team players and they are not known as particularly hard workers. However, they are interested in when and how they can achieve promotions within their jobs (Harter & Agrawal, 2014). Some of their defining values include: high self-esteem, media and entertainment overload, diversity, networkers, naiveté, change, techno-savvy and global citizenship (Codrington, 2011). This generation currently includes over 70 million people (Fenich, Scott-Halsell, & Hashimoto, 2011; Hewlett, Sherbin, & Sumberg, 2009). Due to their size, they will become the dominant generation within the workforce within the next 10 years (Strohm, 2014). Thus, it is critical for meeting professionals to better understand and advance with Generation Y's meeting requirements (Fjelstul, Severt, & Breiter, 2012).

While each generation has specific values that were created during their formative years, there are often attendees from many generations included in one meeting.

Marketers can factor in the values of each generation to assist with building trust, relationships and ultimately make the sale (Williams & Page, 2011). Multi-generational marketing is based on the following two principles: 1) as life stages change, product needs also change, and 2) marketing messages reflecting generational values can drive spending behavior (Williams, Page, Petrosky, & Hernandez, 2010). Before marketing virtual and hybrid meetings using specific generational values, however, it must first be determined if individuals from each generation do consider generational formative referents when choosing to use technology within meetings.

5.3.3 Technology Acceptance Model

Davis (1986) introduced the Technology Acceptance Model (TAM), which is now one of the most cited theoretical frameworks in research (Park, Lee, & Cheong, 2007). TAM, which stems from the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), has been applied to a variety of fields within academic studies (Park et al., 2007). Davis et al. (1989) found this theoretical model attempts to identify "the determinants of computer acceptance that is general, capable of explaining user behavior across a broad range of end-user computing technologies and user populations, while at the same time trying to be parsimonious and theoretically justified" (p. 985).

Literature on technology acceptance shows significant research examining the relationship between perceived usefulness, perceived ease of use and other technologies (e.g., Adams, Nelson, & Todd, 1992; Szajna, 1996). TAM has also been researched extensively and supported for its power to predict IT usage (Davis & Venkatesh, 1996; Taylor & Todd, 1995; Venkatesh, Morris, Davis, & Davis, 2003). Kim, Jang and Morrison (2011) examined the organizational factors influencing the TAM. The

Organizational TAM, proposed by Kim, Jang and Morrison (2011) tested Technology Experience, Work Experience, Organizational Supports, Organizational Resources, Social Influence and Facilitating Condition as prior factors directly influencing TAM. Sumak, Hericko and Pusnik (2011) conducted a meta-analysis on e-learning technology acceptance and listed anxiety, confirmation, facilitating conditions, self-efficacy, information quality, computer self-efficacy, technical support, system quality, experience, subjective norm, management support, perceived affective quality, job relevance and compatibility as prior factors tested within TAM. Formative referents have been tested to determine the influence on salient referents, value perceptions and attitude pertaining to intention to travel (Gardiner, King, & Grace, 2012).

Considering the extant literature available on virtual and hybrid meetings, TAM, and the GCT, this research focuses on expanding the body of knowledge within these areas of study by proposing the following model (Figure 1) and respective hypotheses designed to explore generational formative referents impact on technology use in meetings across generations

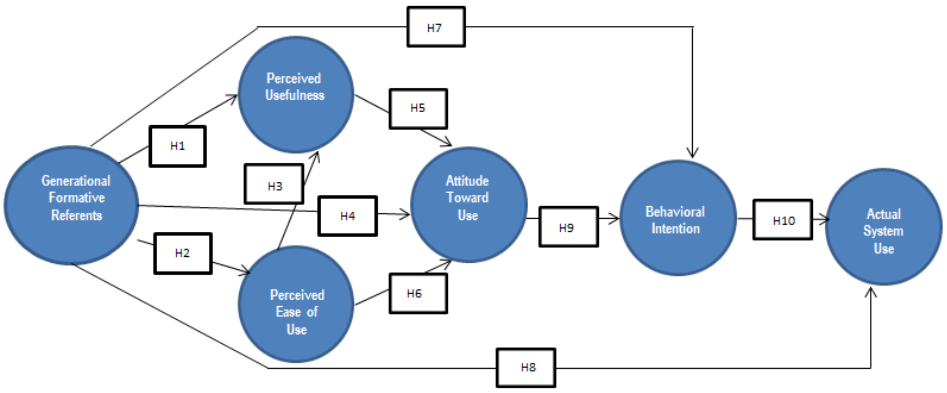

Figure 5.1 Proposed TAM Model (Adapted from Davis, Bagozzi, & Warshaw, 1989)

Extant literature on TAM, defines perceived usefulness as the degree to which the user believes using the technology will improve performance; perceived ease of use pertains to how effortless the respondent perceives using the technology will be. Previous literature indicates both are considered distinct factors, which influence the user's attitude towards using the technology. Perceived ease of use has also been tested as an influence on perceived usefulness and attitude towards using the technology. Attitude towards using the technology has been determined as influencing behavioral intention (Masrom, 2007) that also influences Actual System Use. While the paths in the overall model have been tested and operationalized in previous studies utilizing different external variables (McKechnie, Winklhofer, & Ennew, 2006; Abbad, Morris, Al-Ayyoub, & Abbad, 2009), the following hypotheses propose testing the paths to include Generational Formative Referents. The following hypotheses are therefore suggested:

H1: Generational Formative Referents will positively influence Perceived Usefulness of technology used within meetings.

H2: Generational Formative Referents will positively influence Perceived Ease of Use of technology used within meetings.

H3: Perceived Ease of Use will positively influence Perceived Usefulness.

H4: Generational Formative Referents will positively influence Attitude toward using technology within meetings.

H5: Perceived Usefulness will positively influence Attitude toward using technology within meetings.

H6: Perceived Ease of Use will positively influence Attitude toward using technology within meetings.

H7: Generational Formative Referents will positively influence Behavioral Intention to use technology within meetings.

H8: Generational Formative Referents will positively influence Actual Use of Technology within meetings.

H9: Attitude toward using technology within meetings will positively influence Behavioral Intention to use technology within meetings.

H10: Behavioral Intention to use technology within meetings will positively influence Actual Use of technology within meetings.

5.4 Methodology

This research utilized the PLS-Structural Equation Modeling (SEM) approach which maximizes the explained variance of dependent latent constructs (Hair, Ringle, & Sarstedt, 2011). Several steps were taken to accomplish this research including: identifying and adapting Generational Formative Referents through extant literature; adapting a TAM model (and measures); analyzing the formative or reflective character of each construct; creating, distributing and analyzing two pilot surveys utilizing adapted measures for each construct; distributing and collecting data on a final survey pertaining to technology use within meetings; testing for validity, reliability, and normality of the measures; and finally, employing PLS to test the proposed model and related hypotheses.

5.4.1 PLS

PLS-SEM analysis is utilized to estimate the path relationships within the TAM model indicating how Generational Formative Referents relate to the other model constructs across three generations (Baby Boomers, Gen X, and Gen Y). PLS-SEM is defined as a causal modeling approach used to maximize explained variance of dependent

latent constructs (Hair et al., 2011). When applying SEM, there are generally two approaches which can be used to estimate relationships within the model; Covariance-Based (CB-SEM) and PLS-SEM (Hair et al., 2011; Hair, Ringle, & Sarstedt, 2011). When determining which to use, the researcher should consider the characteristics and objectives for each method.

PLS was employed for this research based on the following guidelines presented by Hair et al. (2011), which include selecting the PLS approach if: "the goal is identifying key "driver" constructs; the research is exploratory or an extension of an existing structural theory; formative constructs are part of the structural Model; the structural model is complex; the data are to some extent non-normal; the sample size is relatively low and/or CB-SEM requirements cannot be met (e.g. data distributional assumptions)" (p. 144). While Tenenhaus, Amato and Esposito Vinzi (2004) did propose a PLS-SEM global goodness of fit measure, Henseler and Sartedt (2013) found this measure is unable to recognize unspecified models; therefore, it was not employed. Thus, to assess the model's fit the indicators mentioned previously were used (Hair, Hult, Ringle, & Sarstedt, 2014). A two-step process is then usually followed when assessing PLS-SEM, including assessing the measurement models and the structural model (Hair et al., 2011).

5.4.2 Sampling Details

Once the survey was created, it was first shared with nine colleagues and peers for content, clarity and wording recommendations. Once the suggestions were considered and implemented, 25 individuals who had engaged in at least one virtual or hybrid meeting took the survey. The data was then checked for validity and reliability. Final

survey responses were collected through three surveys (one for each generation) using an online crowdsourcing Internet marketplace which solicited attendees of virtual and/or hybrid meetings by generation. In order to allow only those within each generation to respond, the age ranges for each generation were specifically addressed in the beginning of each survey. In addition, if the respondents did not check the correct age range included for each particular survey, the survey was terminated. If the respondents indicated they had not attended any virtual meetings or any hybrid meetings, the survey was also ended. For the final results, 468 surveys were collected, 431 surveys were determined as completed and usable for a 92% response rate. To attain equal representation from each of the three generational cohorts, 140 respondents were randomly selected from each group (Gardiner et al., 2012). The final data analyzed, therefore, resulted in 420 responses. Demographics of the overall sample are included within Table 5.1.

Table 5.1: Demographics

N=420		
Variable	**Category**	**Percentage of Sample**
Gender	Male	63.5%
	Female	36.5%
Employment Type	Small Business	20%
	Corporation	44.4%
	Association	8.8%
	Government	7.2%
	Self-employed	12.4%
	Currently not employed	1.7%
	Student	3.8%
	Other	1.7%
Country of Residence	Algeria, Bahamas, Israel, Nigeria, Philippines, Romania, Saudi Arabia, Serbia, Singapore, United	.2% each

	Arab Emirates	
	United Kingdom of Great Britain and Northern Ireland	.5%
	India	32.7%
	United States	64.4%
Number of Virtual Meetings Attended in Past 2 Years	0	1%
	1-2	37.1%
	3-4	28.8%
	5-6	11%
	7-8	5.2%
	9-10	4.3%
	More than 10	12.6%
Number of Hybrid Meetings Attended in Past 2 Years	0	16%
	1-2	42.1%
	3-4	16%
	5-6	10.5%
	7-8	5.2%
	9-10	3.1%
	More than 10	7.1%

5.4.3 Measurement of Variables

Once the model was determined, measures were adapted for each construct. Table 5.2 notes the measurement sources. Forty-four questions were used to measure six constructs. All items were measured on a seven-point Likert-type scale (1 = Strongly Agree and 7 = Strongly Disagree). From the 44 questions, seven reflective measures were removed because of poor loadings on their factors (less than .4 standardized loading or lack of significance at .05). The final measurement instrument included 37 measures across six constructs.

5.5 Results

For the results of this research, the Statistical Package for Social Sciences (SPSS Version 22) was used to determine the descriptive statistics, data normality, correlations and scale reliability and validity. SmartPLS was used to determine the average variance

extracted (AVE), test the model, and test the hypotheses. The data was first examined for skewness and kurtosis with most of the statistics falling outside of normal range (e.g., skewness and kurtosis ± 2.00) and indicating non-normal distributions. All of the Alpha Cronbach's scores (Table 5.2) included are above .8, indicating they are satisfactory based on the guideline of composite reliability scores being satisfactory if above .60 in exploratory research (Fornell & Larcker, 1981). AVE values above .50 indicate a satisfactory degree of convergent validity, thus all of the latent variables within this research explain more than half of the indicator's variance (Fornell & Larcker, 1981).

Table 5.2: Construct Measures with Reliability and Validity Statistics

Construct	Measures	Resource
Generational Formative Referents **α = .878** **AVE = .692**	When I was growing up, the following influenced my behavior toward the use of technology within meetings today: My friends My family values My family's financial circumstances My religious affiliation Educational opportunities within society Employment opportunities within society The economy Society's values	Gardiner, King & Grace (2012)
Perceived Usefulness **α = .923** **AVE = .722**	Using technology within meetings: Improves the quality of the meeting Gives me greater control over the meeting Society thinks I should buy locally produced foods (SN4) Enables me to accomplish tasks more quickly Supports critical aspects of my contributions to the meeting Increases my productivity within the meeting Improves my meeting performance Allows me to accomplish more work than would otherwise be possible Enhances my effectiveness within a meeting Makes it easier to participate within a meeting	Davis, 1989

	Makes it easier to understand meeting content	
	Is useful to the meeting experience	Davis, 1989
Perceived Ease of Use	Within meetings, I find that:	
α = .880	Learning to operate technology is easy	
AVE = .771	It is easy to get technology to perform	
	It is easy for me to remember how to perform tasks using technology	
	My interaction with technology is clear and understandable	
	Technology is easy to use	
Attitude Toward Using	Using technology within meetings is:	Davis, 1989
α = .895	Wise	
AVE = .793	Favorable	
	Beneficial	
	Positive	
	Good	
Behavioral Intention	I intend to:	Wu, Wang & Lin (2007)
α = .842	Use technology within meetings to improve my meeting engagement whenever possible	
AVE = .800	Use available technology within meetings frequently	
	Be a heavy user of technology	
Actual System Use	I am knowledgeable about how to use technology within meetings	Cheung, Chang & Lai (2000)
α = .871	I use technology within meetings intensively (throughout meetings).	
AVE = .762	I use technology within meetings frequently	
	I use technology within a variety of different meetings	
	Overall, I use technology within meetings a lot.	

Composite reliability scores noting values larger than .6 are considered acceptable (Vinzi, Chin, Henseler, & Wang, 2010).

The Construct Validity table (Table 5.3) shows all of the variance scores are higher than the latent construct's greatest squared correlation with any of the other constructs. In addition, as the second criterion for discriminant validity, the indicators loading with the associated constructs are greater than the loadings for the other constructs cross loadings (Fornell & Larcker, 1981).

Table 5.3: Construct Validity Tests

	Construct	1	2	3	4	5
1.	**Perceived Usefulness**	**.722**				
2.	**Perceived Ease of Use**	.520	**.771**			
3.	**Attitude Toward Using**	.653	.419	**.793**		
4.	**Behavioral Intention**	.661	.477	.539	**.800**	
5.	**Actual System Use**	.421	.338	.294	.642	**.762**

Diagonal entries reflect the average variance extracted (AVE) for each construct
Off-diagonal entries reflect the variance (squared correlations) shared between constructs

The factor loadings for each measure of the reflective constructs, ranging from .62 to .89, indicate the measures for each construct were reliable and valid. There was one low formative factor loading at .27, however this measure was not deleted as formative measures are presumed to cause a latent construct, thus changing the measures would also change the latent construct value (Diamantopoulos & Winklhofer, 2001). Both the construct loadings found in Table 5.4 and the T-statistics (T > 1.96) noted in Table 5.5 support convergent validity of the construct indicators (Al-Gahtani, Hubona, & Wang, 2007).

Table 5.4: Factor Loadings and Cross Loadings

	ASU	AU	BI	GFR	PEU	PU
ASU3	**0.6190**	0.6724	0.6284	0.3732	0.5735	0.6676
ASU4	**0.8280**	0.4292	0.5955	0.4503	0.3365	0.4945
ASU5	**0.8498**	0.4510	0.6337	0.4376	0.3093	0.4711
ASU6	**0.7646**	0.2617	0.5185	0.4094	0.1970	0.3422
ASU7	**0.8878**	0.4025	0.6574	0.4969	0.2777	0.4057
ATT1	0.4678	**0.8702**	0.6094	0.5388	0.4678	0.6491
ATT2	0.4462	**0.8596**	0.4935	0.5043	0.5093	0.6742
ATT3	0.4594	**0.8227**	0.5419	0.4399	0.5018	0.6747
ATT4	0.4950	**0.8141**	0.6198	0.5318	0.5059	0.5989
ATT5	0.4959	**0.8180**	0.5167	0.4824	0.5140	0.6331
BI1	0.6671	0.6719	**0.8737**	0.5034	0.5236	0.7292
BI2	0.6362	0.5897	**0.8890**	0.4749	0.5335	0.6333

BI3	0.6998	0.4596	**0.8359**	0.4407	0.3895	0.5331
GFR1	0.4585	0.5067	0.4887	**0.8559**	0.2485	0.5026
GFR2	0.3259	0.3122	0.2698	**0.5469**	0.1527	0.3435
GFR3	0.4112	0.4285	0.3716	**0.7129**	0.1927	0.4238
GFR4	0.2774	0.1036	0.1594	**0.2652**	0.0429	0.0930
GFR5	0.4784	0.5016	0.4567	**0.8341**	0.2138	0.4832
GFR6	0.4504	0.3749	0.4003	**0.7200**	0.1068	0.4686
GFR7	0.3863	0.3890	0.3295	**0.6508**	0.1577	0.3958
GFR8	0.3235	0.3170	0.3007	**0.5268**	0.1279	0.2776
PEU10	0.3481	0.4431	0.3713	0.1941	**0.8144**	0.4318
PEU2	0.3421	0.5541	0.5079	0.2187	**0.8678**	0.5621
PEU4	0.3071	0.3648	0.3293	0.0947	**0.7639**	0.3767
PEU6	0.3586	0.5149	0.5428	0.2414	**0.7932**	0.5554
PEU8	0.3916	0.5120	0.4738	0.2722	**0.8302**	0.5190
PU1	0.5041	0.7175	0.6415	0.5209	0.4825	**0.7717**
PU10	0.4257	0.4799	0.5183	0.4893	0.3958	**0.7090**
PU11	0.4827	0.6168	0.5836	0.5226	0.5169	**0.8115**
PU2	0.5367	0.6399	0.6081	0.4063	0.5149	**0.7903**
PU3	0.4553	0.6149	0.4984	0.3776	0.5300	**0.7653**
PU4	0.5045	0.6036	0.4847	0.4534	0.5273	**0.7762**
PU5	0.4750	0.5217	0.5297	0.4680	0.4670	**0.7690**
PU6	0.4162	0.5821	0.6184	0.4430	0.5154	**0.7706**
PU7	0.4405	0.5462	0.5915	0.4397	0.3780	**0.6856**
PU8	0.4191	0.5020	0.5488	0.5248	0.3539	**0.7578**
PU9	0.4008	0.6141	0.5306	0.4370	0.4236	**0.7904**

5.5.1 Path Analysis Results

All hypotheses were tested using the Partial Least Squares (PLS) approach to Structural Equation Modeling (SEM). SmartPLS is a structural regression modeling software and was utilized for this analysis. Table 5.5 outlines to PLS analysis results and shows the path coefficients (PC), standard deviation (STDEV), standard error (STERR), T-statistics (T-Stat) and notes support for each hypothesis. If the T-statistic is greater than 1.96, the path coefficients are considered significant.

The T-statistics noted in Table 5.5 indicate all hypotheses are supported. Therefore significant, positive relationships are indicated for all paths tested including: H1 (generational formative referents to perceived usefulness); H2 (generational formative referents to perceived ease of use); H3 (perceived ease of use to perceived usefulness);

H4 (generational formative referents at attitude toward using); H5 (perceived usefulness to attitude toward use); H6 (perceived ease of use toward attitude toward using); H7 (generational formative referents toward behavioral intention); H8 (generational formative referents to actual system usage); H9 (attitude toward using to behavioral intention; and H10 (behavioral intention to actual system use). While all T-statistic values were above 1.96, GFR – PU (7.42), PEU-PU (8.04) and BI – ASU (10.03) received the highest values indicating the strongest relationships. The weakest relationship, while still significant, appears between generational formative referent and actual system use (2.18).

Since all hypotheses were tested using the entire dataset (including data from all three generational cohorts) and found to have significant positive path relationships when including Generational Formative Referents within TAM, an adhoc multi-group comparison test was then conducted through PLS to check for any generational cohort differences with regard to the tested path relationships. The multi-group comparison determined all three generations responded similarly with regard to the paths being tested so generational cohort was not found to have a moderating effect on the model. The fact that all three generations responded similarly with regard to the paths tested validates the preconceived notions of technology use within meetings, indicating each of the three generational cohorts within this study are influenced by the experiences of their formative years, which are different for each generation, indicating support for the GCT.

Table 5.5: Path Coefficients and T-Statistics

	PC	STDEV	STERR	T Stat	Hypothesis
H1: GFR -> PU	0.4775	0.0643	0.0643	7.4233	Supported
H2: GFR -> PEU	0.2599	0.0964	0.0964	2.6959	Supported
H3: PEU -> PU	0.4873	0.0606	0.0606	8.0426	Supported

H4: GFR -> AU	0.2493	0.0896	0.0896	2.7821	Supported
H5: PU -> AU	0.4719	0.1004	0.1004	4.6985	Supported
H6: PEU -> AU	0.2433	0.0693	0.0693	3.5106	Supported
H7: GFR -> BI	0.2316	0.1050	0.1050	2.2070	Supported
H8: GFR -> ASU	0.1826	0.0838	0.0838	2.1789	Supported
H9: AU -> BI	0.5279	0.0863	0.0863	6.1145	Supported
H10: BI -> ASU	0.6701	0.0668	0.0668	10.0287	Supported

PC - Path Coefficients; STDEV - Standard Deviation; STERR – Standard Error; T-Stat – T- Statistic

5.6 DISCUSSION

With the recent investigation of generational cohort engagement within meetings and events, and the limited theory development within this area of study within hospitality and tourism, this research is the first to investigate a theoretical model on generational technology use within meetings. While there have been numerous studies based on this belief, it appears this information has not been theoretically tested and confirmed within hospitality studies. This research validates the preconceived beliefs that experiences from one's formative years influence technology use within meetings today. This information highlights the importance of taking each generation into consideration when planning meetings utilizing technology.

This is important because this research now validates and supports the previous research exploring generational influence, in addition to setting a foundation for future generational studies pertaining to meetings. By including the GCT, this research highlights the importance of considering the values of each generation. The GCT notes the values we develop throughout our formative years guide us in how we interact with our environments. While previous studies have investigated the preferences of technological use by generations, marketers may now consider the values of each generation as they begin to market and engage attendees.

When considering the newest technological advancements (e.g. Telepresence, Haptic Technology, Mobile Devices, Targeted Audio, Speech and Voice Recognition,

Artificial Intelligence, Robotics and Display Technologies) (Dixon et al., 2013), meeting professionals should base their marketing on generational values since the generational preferences will not be tested until they become more mainstream. By acknowledging the GFR influence the use of technology within meetings, the values of each generation can be considered as marketing tools to assist with increased attendance and meeting engagement.

By considering Baby Boomer values including idealism, image, personal growth, team orientation, self-expression, youth, nostalgia, and health and wellness (Codrington, 2011), a meeting planner can now address those values within the marketing and engagement of the meeting. Marketing efforts might express, for example, opportunities for telepresence that offers a nostalgic experience; targeted audio information offering health and wellness opportunities; mobile devices and speech and voice options offering team orientation activities; and display technologies offering youthful experiences.

When considering Generation X, defining values including choice, global awareness, change, techno-literacy, individualism, lifelong learning, informality, self-reliance, and not scared of failure (Codrington, 2011), planners can market to this generation by communicating technological options connected with these values. For global awareness, marketers can communicate telepresence opportunities to experience other global locations, or speech and recognition opportunities allowing attendees to communicate easily with international attendees. To address techno-literacy, self-reliance and not scared of failure values, marketers might focus on the newest updates for artificial intelligence with regard to technology. Lifelong learning opportunities might be marketed through display technologies or mobile devices.

Some of the defining values for Generation Y include high self-esteem, media and entertainment overload, diversity, networking, naiveté, change, techno-savvy and global citizenship (Codrington, 2011). Marketing the technology entertainment opportunities, such as gaming, would be appealing to this generation and could be marketed through the use of mobile devices, targeted audio and display technologies. Since networking opportunities can often be combined with gaming activities, this is an opportunity for marketers to speak directly to this generation and get their attention. To address global citizenship, marketers can communicate global engagement opportunities through telepresence and speech and voice recognition opportunities. Forums utilizing telepresence and voice and recognition, for example, could be used to create global communities within the meeting industry addressing worldwide industry issues and standards.

Based on testing generational formative referents within TAM, meeting professionals and meeting marketers can now confidently and immediately apply the GCT (Park et al., 2007) within their meeting planning strategies. By identifying and testing the theoretical framework for this current focus within the industry, this research has confirmed GFR influence how technology is used within meetings. Through a better understanding of generational formative referents, and the values associated with different generations, marketers can address what is important to each generation and market the meeting utilizing a more thorough multi-generational approach. These values, once created, are steadfast, therefore they provide a usable platform from which to market meetings and further engage meeting attendees. In addition, this research offers valuable information to the planners to increase meeting productivity throughout virtual

and hybrid meetings. As virtual and hybrid meetings continue to evolve and increase, marketers and planners can use this information to employ a current strategic competitive advantage. The GCT offers a straightforward and powerful framework for the successful marketing of meetings. In addition, by employing the GCT, meeting professionals can confidently plan and execute meetings while considering each generation, thus allowing for a more effective and engaging meeting environment.

5.6.1 Limitations

A number of limitations can be identified within this study. This study was distributed through an online survey opportunity and was assessing technology use within meetings; therefore this research may be biased as those who are not technology savvy may not have had the opportunity to complete the survey, or may not have had the interest. Eliminating this population (by default) from the survey may have altered the results. In addition, the survey was distributed in English, but the respondents were from numerous countries. It is not known if all respondents could read the English language fluently. Difficulties in translation may have resulted in altered results. One additional limitation is pertaining to the low factor loading for one of the formative generational referents measures. This measure was not deleted for this construct per Diamantopoulos and Winklhofer (2001), however, the low loading does create question with regard to the construct value and measures.

5.6.2 Future Research

Now that the GCT has been tested and supported as influencing the use of technology within meetings, additional studies can be conducted on how the values of each generation specifically influence their engagement with virtual and hybrid meetings.

This study can be seen as further justification for the previous studies on generational influences within meetings and provide a theoretical foundation for future research. Additional studies should further explore and test the formative measures for the Generational Formative Referent construct.

While many countries do appear to acknowledge generational cohorts, it is noted that countries experience different events at different times, so a cross-cultural study is also an area for further investigation with regard to generational formative referent and technology use. With generational cohorts gaining popularity within research, formative referents should be further tested within the study of meetings, such as attendee engagement, attendance, and response to marketing initiatives. As the generations age, and Generation Y further infiltrates the workforce, there are many opportunities to further explore how these changes impact meetings and events. Is the technological gap between generations closing? Will Generation Y have an impact on the future of technology within meetings and events? Will meeting professionals give more consideration to Generation Y's technological needs since they are considered the savviest with regard to technological use? Given the current industry and academic interest in the generational aspect of meetings, and the rapid advancement of technology within the meetings industry, additional research in this area is necessary.

CHAPTER 6

CONCLUSION

This dissertation utilizes a meta-analysis research methodology, an applied research approach, and a theoretical research approach, within a three-article manuscript-style format to provide a focused research stream with regard to virtual and hybrid meetings from a generational perspective. Within the meta-analysis the state of current literature pertaining to virtual and hybrid meetings is assessed and gaps within the literature are identified. Two of the areas identified for future research are then further investigated within the next two research studies included within this dissertation.

Addressing the need for further research from a generational perspective, the second article utilizes an applied research format to identify the current best practices, opportunities and barriers for planning and managing virtual and hybrid meetings for Baby Boomers, Generation X, and Generation Y. To further explore technology use within the meeting setting, from a generational perspective, the third article utilizes the TAM and investigates the influence of generational formative referents, the basis for the Generational Cohort Theory (GCT). The three studies within this dissertation are not only related, but are specifically designed to work together to form a more thorough and comprehensive research stream pertaining to the investigation of virtual and hybrid meetings from a generational perspective.

While this topic has been explored from an industry perspective, and continues to be discussed within industry publications, this research offers a more academic approach. By utilizing a meta-analysis research methodology, an applied research approach, and a theoretical research approach a more coherent and extensive picture of virtual and hybrid meetings is produced which then broadens the limited foundation of academic knowledge within this area of hospitality studies. This results from this research help to validate and justify preconceived notions about how meeting attendees within three generational cohorts and meeting planners respond to various meeting components, specifically for this research, the use and adaptation of technology.

6.1 Meta Analysis

The research conducted for the first article, *Virtual and Hybrid Meetings: A Qualitative Meta-Analysis* confirmed the lack of extant literature on virtual and hybrid meetings within hospitality studies. In addition, applicable literature did exist within other disciplines, such as education and management, allowing researchers to look outside of hospitality and use an interdisciplinary research approach to advance the knowledge within this area.

The existing literature found across disciplines pertaining to virtual and hybrid meetings included 67 articles which were categorized into five groups: Perceptions and Attitudes Toward Virtual and Hybrid Meetings; Comparison of Virtual and/or Hybrid Meetings with F2F Meetings; Management and Design of Virtual and/or Hybrid Meetings; Uses of Technology within Virtual and Hybrid Meetings; and Specific Audiences for Virtual and Hybrid Meetings. The majority of publications included within hospitality and tourism journals fell into the Uses of Technology within Virtual

and Hybrid Meetings category. When reviewing the literature solely within hospitality and tourism journals, only 15 articles were found, concluding the research pertaining to virtual and hybrid meetings is limited within hospitality studies, thus offering future direction and opportunity for research within this area.

The five categories housing the publications included within this study are summarized below:

- Perceptions and Attitudes Toward Virtual and Hybrid Meetings: Many of the articles placed into this category indicated an increase in virtual and hybrid meeting formats, and expressed the overall trend of the changing perception of virtual and hybrid meetings as becoming more accepted and commonplace.
- Uses of Technology within Virtual and Hybrid Meetings: Three subthemes emerged within this category including: attitudes toward the use of technology, articles specifically addressing virtual components of virtual and hybrid meetings and the utilization of specific virtual products.
- Management and Design of Virtual and/or Hybrid Meetings: The articles within this category investigated specific areas within virtual and hybrid meetings pertaining to the management and design of the meeting, such as the delivery of material (Hodge, Tabrizi, & Wuensch, 2007); virtual explorations (Chang, 2004); options for exhibitor participation (Edgar, 2002); gaming within a meeting (Gresalfi & Barab, 2011); and multimedia support for the meeting (Koh & Kim, 2003). While the articles included within this category address options for enhancing the success of these

meeting formats from both the planner and attendee perspective, there are no articles which offer a larger picture of this concept, such as a best practices approach.

- Comparison of Virtual and/or Hybrid Meetings with F2F Meetings: As the industry moves further away from a F2F meeting format and includes more and more technology, there is an obvious research progression as these new meeting formats are compared to the more traditional (F2F) format during this evolution process. The articles included within this category supported the notion that while F2F meetings are often preferred, virtual meetings are gaining favor. Hybrid meetings, combining the best of F2F meetings with virtual components, are acknowledged as the future of the meeting industry.
- Specific Audiences for Virtual and Hybrid Meetings: Within this category, publications were included which investigated specific audiences and their use, need or engagement of virtual or hybrid meetings. Examples of these audiences included non-traditional students, distance education learners, marketing students, dance performers and generation Y individuals.

While the majority of articles included within this study supported the acceptance and progress of virtual and hybrid meetings, what is missing is as important as what has been included. Identifying the gaps in the literature, in fact, was the first step taken to determine the two additional studies included within this dissertation. First, there is a need to better understand what planners are currently utilizing within their virtual and hybrid meeting formats in order to then determine if the audience is benefitting from their

strategies. While specific uses of technology incorporated into meeting formats has been addressed, it does not appear meeting professionals have been included in a process to determine what is best working overall for their meetings and attendee engagement. In addition, while generations are addressed individually in some of the studies included, there are no studies to address all three of the largest generations in today's workforce (Generation Y, Generation X and Baby Boomers). To address these research opportunities, the second study of this dissertation, *Virtual and Hybrid Meetings: Accommodating Baby Boomers, Generation X and Generation Y*, was conducted which further explored these concerns.

While there were a number of studies investigating the differences of technology adaptation pertaining to age, very few articles broke down this process by generation. Theoretical backing is also lacking within the majority of these studies. By investigating all three generations in today's workforce, while using theoretical backing, a more complete and comprehensive snapshot can be seen of how each generation is accepting technology within these meeting formats. This is an area which can be further expanded as generational cohort stereotypes are noted to be at various stages with regard to technology use and savvy. Once generational differences are identified with regard to virtual and hybrid meeting engagement, planners can better and more confidently accommodate these audiences within their meetings and create optimal engagement opportunities for all meeting attendees. The third article included within this dissertation, *Technology Use within Meetings: Exploring the Generational Perspective through Partial Least Squares*, addresses these research opportunities by further exploring the GHT and its applicability to the TAM.

To summarize, the first article within this dissertation was utilized to assess the current state of literature pertaining to virtual and hybrid meetings. As a critical first step in this dissertation process, the meta-analysis set the stage for the two additional studies included within this research to provide a more comprehensive research stream pertaining to virtual and hybrid meetings from a generational perspective. By addressing this area of study from a meta-analysis methodology perspective, a practical research approach, and a theoretical research approach, this literature can greatly assist with filling the foundational gap currently existing within this area of hospitality studies.

6.2 The Delphi

In the second article included within this dissertation, *Virtual and Hybrid Meetings: Accommodating Baby Boomers, Generation X and Generation Y*, an applied research method was utilized through use of a modified Delphi technique. During the modified Delphi process, 12 expert meeting professionals participated in 4 rounds of feedback to determine best practices, opportunities and barriers when planning and managing virtual and hybrid meetings for Baby Boomers, Generation X and Generation Y.

This article utilized the Generational Cohort Theory, which was not included within any of the research articles contained within the meta-analysis. Including this theory was important to better understand how generational cohorts are identified and what values are accredited to each. The results of the study indicated meeting professionals do consider generational differences when planning and executing virtual and hybrid meetings based on the three generations investigated. Identifying these differences considered for each generational cohort then support the GCT from a

planning and managing perspective. Therefore, meeting planners are implementing technology based on the perceived needs and capabilities of the generations they are serving. Interestingly, while the notion of generational differences is popular within industry publications and is being utilized by meeting professionals (per this research) as they plan virtual and hybrid meetings, there is a lack of theoretical testing backing this theory within the meeting environment. Before theoretical testing was conducted, it was prudent to determine if in fact, this notion of generational differences was being actively employed and utilized within the meeting environment. Once industry utilization was confirmed, confirmation was acknowledged for an immediate need to address this consideration from a theoretical perspective.

Highlights from this research included Baby Boomers attending virtual and hybrid meetings should be offered technology that is easy to use, simple and convenient. This practice supports the notion of Baby Boomers not being comfortable with technology (Fenich et. al., 2011). It was recommended to consider producing the perception of effectiveness that correlates with the notion of this generation placing great value on work (Gentry, Griggs, Deal, Mondore, & Cox, 2011).

For Generation X, it was recommended for planners to collaborate with content designers of meetings. This recommendation correlates with the perception of this cohort's desire for preparation before meetings (Perine, 2012). Including real-world examples was recommended for hybrid meetings, supporting this generation's desire to work with factual information (Perine, 2012). It was also recommended for planners to create the perception of effectiveness for virtual meetings. For hybrid meetings, the

perception of time worthiness should be created. This correlates with this generations' preference of being in control of their time (Perine, 2012).

For Generation Y, planners should incorporate social networking components, supporting this generations' reliance on technology in addition to their reliance on peer opinion (Reilly, 2012). For virtual meetings, positive reinforcement, and teach the teacher opportunities were recommended supporting their desire for positive reinforcement and immediate gratification (Perine, 2012).

As an area for future research identified within the meta-analysis, this research investigated the three main generational cohorts within the workforce today and identified a more complete picture of management practices currently being utilized within the industry. The best practices, opportunities and barriers with regard to planning virtual and hybrid meetings for these generational cohorts assist in better understanding how today's meeting professionals are accommodating audiences from these different generations. While the results of this research include some similarities and overlap amongst the three generations included, noteworthy differences were also identified. The differences between the generational cohorts indicate meeting professionals who plan virtual and hybrid meetings do take generational cohorts into consideration during the planning and implementation stages of the meetings.

While is it important for meeting professionals to be aware of how to accommodate these generations within their audiences of these ever-evolving meeting formats, the next step is to theoretically confirm generational differences are considered by meeting attendees when utilizing technology throughout these meeting formats. With the rapidly advancing implementation of technology within meetings and the rising

standards and expectations of meeting audiences, it is a prudent next step to confirm meeting professionals are working to address real needs of their audiences. The GCT is supported from a meeting professional perspective in how virtual and hybrid meetings are planned, but does this theory hold up when tested by meeting attendees within the three generational cohorts investigated?

6.3 Partial Least Squares

Expanding once again on the findings of the meta-analysis, and building on the research conducted with the meeting professionals identifying best practices, opportunities and barriers within virtual and hybrid meetings, the third study included within this dissertation explores the GCT from a meeting attendee perspective. The article, *Technology Use within Meetings: Exploring the Generational Perspective through Partial Least Squares*, explores *g*enerational formative referents, the basis of the GCT, as factors that influence meeting attendees' adoption and technology use within virtual and hybrid meetings. This research tested the applicability of the TAM and is the first research within hospitality and tourism studies to investigate a theoretical model on generational technology use within the meetings environment. This study investigated how attendees' experiences from their formative years (i.e., generational formative referents), influence the TAM model constructs. A Partial Least Squares analysis test was utilized to determine technology acceptance within meetings across the three generations in the workforce today: Baby Boomers, Generation X, and Generation Y.

Through an online survey, the TAM constructs are measured through a series of questions asked of individuals who have attended virtual and or hybrid meetings. To measure the generational formative referents, the following is asked and the responses

were identified using a 7 point Likert scale (1 = Strongly Agree and 7 = Strongly Disagree).

When I was growing up, the following influenced my behavior toward the use of technology within meetings today:

- My friends
- My family values
- My family's financial circumstances
- My religious affiliation
- Educational opportunities within society
- Employment opportunities within society
- The economy
- Society's values

The following hypotheses were tested and found to have significant positive relationships using the Partial Least Squares (PLS) approach to Structural Equation Modeling (SEM):

H1: Generational Formative Referents will positively influence Perceived Usefulness of technology used within meetings.

H2: Generational Formative Referents will positively influence Perceived Ease of Use of technology used within meetings.

H3: Perceived Ease of Use will positively influence Perceived Usefulness.

H4: Generational Formative Referents will positively influence Attitude toward using technology within meetings.

H5: Perceived Usefulness will positively influence Attitude toward using technology within meetings.

H6: Perceived Ease of Use will positively influence Attitude toward using technology within meetings.

H7: Generational Formative Referents will positively influence Behavioral Intention to use technology within meetings.

H8: Generational Formative Referents will positively influence Actual Use of Technology within meetings.

H9: Attitude toward using technology within meetings will positively influence Behavioral Intention to use technology within meetings.

H10: Behavioral Intention to use technology within meetings will positively influence Actual Use of technology within meetings.

Since all hypotheses were tested using the entire dataset (including data from all three generational cohorts) and found to have significant positive path relationships when including Generational Formative Referents within TAM, an adhoc multi-group comparison test was then conducted through PLS to check for any generational cohort differences with regard to the tested path relationships. The multi-group comparison determined all three generations responded similarly with regard to the paths being tested so generational cohort was not found to have a moderating effect on the model. The fact that all three generations responded similarly with regard to the paths tested validates the preconceived notions of technology use within meetings, indicating each of the three generational cohorts within this study are influenced by the experiences of their formative years, which are different for each generation, indicating support for the GCT.With the

recent focus on the study of generational cohort engagement within meetings and events, combined with the lack of theory development within this area, this research provides the first study to test a theoretical model on generational technology use within meetings. Extant literature provided research based on this belief (with the majority located within industry publications); however, it appears this information has not been theoretically tested and confirmed within hospitality studies. This research therefore, highlights and validates the previous study within this dissertation, in addition to the extant literature found on this topic, and acknowledges the importance of including each generation into consideration when planning meetings utilizing technology.

6.4 Overall Implications and Contributions

This research offers valuable information to meeting professionals as they strive to increase attendee engagement and productivity throughout virtual and hybrid meetings. As these meeting genres continue to progress and increase, meeting marketers and planners can employ this information to strategically create a competitive advantage for their meetings. The GCT offers a direct and effective framework for successfully marketing meetings and engaging attendees.

While this dissertation adds to the base of knowledge and provides the beginning of a research stream for virtual and hybrid meetings from a generational perspective, this stream should be continued as there is much more to be learned within this area of the meetings industry. The next logical step within this research stream would be to study the similarities and differences between the generational cohorts pertaining to their use of technology. Future research can also further explore and confirm the values of the GCT within the meeting environment and how those values can be used specifically to market

future meetings. Future research should be conducted to determine if the technology gap with regard to technology use amongst generations within meetings is closing as technology advances? As Generation Y continues to enter the workforce and engage in business meetings, are these individuals contributing to closing the gap by assisting the other generations within the workforce? As other countries acknowledge generational cohorts, cross-cultural studies should also be conducted to further this research stream within the meeting environment. While there currently exists a great deal of industry focus surrounding the differences existing between generations within the meeting environment, generational studies should continue to be conducted as the savvy and expertise across generations continues to advance.

In addition, the study of generations in general lends itself to perpetuating research as older generations exit the workforce and newer generations enter. While this change in workforce evolves, the interaction between generations and technological use within the meeting environment should continue to be addressed.

This dissertation provides a starting point and theoretical basis for (extant and) future research. Now that the GCT has been confirmed by meeting planners and meeting attendees, both industry professionals and academics can confidently apply the GCT. Industry professionals can continue to consider the components of meetings from a generational perspective to enhance attendance and engagement within the meetings they plan and manage. Industry professionals can also use this information to development more effective marketing plans to increase meeting attendance and attendee engagement within virtual and hybrid meetings. While considering this information during the

planning and execution of virtual and hybrid meetings, this research could also be used to gage the technological progress within meetings pertaining to each generational cohort.

Academics can use this information as a basis for future research within this area as virtual and hybrid meetings continue to evolve and enhance the future of the meetings industry. In addition, as academics prepare the future leaders of the meeting industry within university hospitality programs, this research should be considered and included within the classroom to better prepare these students for success. This research, therefore, provides vital insight benefitting both industry professionals and academics studying the meeting industry and warrants even further investigation.

This dissertation concludes by highlighting the major contributions of this research to the academic literature pertaining to virtual and hybrid meetings from a generational perspective. Through use of a meta-analysis methodology, researchers can now easily review research which has been conducted inside and outside of hospitality studies on virtual and hybrid meetings, assess the current state of the literature, understand the existing gaps within the literature, and identify areas for pertinent research within this area. Through use of an applied research approach, both researchers and academics can better understand what is currently utilized in the meeting industry to address multi-generational audiences within today's meetings. This information can be applied within the industry, applied within the classroom, and/or used as a platform for future research. Through a theoretical research approach, extant and future generational research within the meetings environment is validated and justified. By confirming this preconceived notion of the GCT, academics and industry professionals can now better

apply this theory accordingly. Validating this theory offers a major contribution to the theoretical understanding of technology use within meetings and the GCT.

REFERENCES

Abbad, M., Morris, D., Al-Ayyoub, A., & Abbad, J. (2009). Students' decisions to use an eLearning system: A structural equation modelling analysis. *International Journal of Emerging Technologies in Learning, 4*(4), 4-13. doi:10.3991/ijet.v4i4.928

Adams, D. A., Nelson, R. R., & Todd, P. A. (1992). Perceived usefulness, ease of use, and usage of information technology: A replication. *MIS Quarterly, 16*(2), 227-250.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.

Al-Gahtani, S. S., Hubona, G. S., & Wang, J. (2007). Information technology (IT) in Saudi Arabia: Culture and the acceptance and use of IT. *Information & Management, 44*, 681-691.

Altes, K. (2009). Young professionals effect change in the workplace. *Journal of Property Management, 74*(5), 44-47.

Anderson, A. H., McEwan, R., & Carletta, J. (2007). Virtual team meetings: An analysis of communication and context. *Computers in Human Behavior, 23*, 2558-2580.

Arnfalk, P. P., & Kogg, B. B. (2003). Service transformation—managing a shift from business travel to virtual meetings. *Journal of Cleaner Production, 11*(8), 859. doi:10.1016/S0959-6526(02)00158-0

Aurich, J. C., Ostermayer, D. D., & Wagenknecht, C. H. (2009). Improvement of manufacturing processes with virtual reality-based CIP workshops. *International Journal of Production Research, 47*(19), 5297-5309. doi:10.1080/00207540701816569

Ausburn, L. J. (2004). Course design elements most valued by adult learners in blended online education environments: An American perspective. *Educational Media International, 41*(4), 327-337.

Bailey, K. D., & Morais, D. B. (2004). Exploring the use of blended learning in tourism education. *Journal of Teaching in Travel & Tourism, 4*(4), 23-36.

Bajko, R. (2012). Mobile telephone usage, attitude, and behavior during group meeting. *Journal of Information Systems Applied Research, 5*(2), 4-13.

Baloglu, S., & Assante, L. (1999). A content analysis of subject areas and research methods used in five hospitality management journals. *Journal of Hospitality & Tourism Research, 23*(1), 53.

Bekebrede, G., Warmelink, H. J. G., & Mayer, I. S. (2011). Reviewing the need for gaming in education to accommodate the net generation. *Computers & Education, 57*, 1521-1529.

Bennett, G., & Lachowetx, T. (2004). Marketing to lifestyles: Action sports and Generation Y. *Sports Marketing Quarterly, 13*, 239-243.

Bogdan, R., & Taylor, S. J. (1975). *Introduction to qualitative research methods*. New York: John Wiley.

Bowers, T. (2012, July 3). Want to have better meetings? Ditch Powerpoint. *TechRepublic.* Retrieved from http://www.techrepublic.com/blog/career-management/want-to-have-better-meetings-ditch-powerpoint/

Brooks, C. F. (2010). Toward 'hybridised' faculty development for the twenty-first century: Blending online communities of practice and F2F meetings in instructional and professional support programmes. *Innovations in Education & Teaching International, 47*(3), 261-270. doi:10.1080/14703297.2010.498177

Brosdahl, D. J. C., & Carpenter, J. M. (2012). U.S. male generational cohorts: Retail format preferences, desired retail attributes, satisfaction and loyalty. *Journal of Retailing and Consumer Services, 19*(6), 545-552.

Bull Schaefer, R., & Erskine, L. (2012). Virtual team meetings: Reflections on a class exercise exploring technology choice. *Journal of Management Education, 36*(6), 777-801.

Cain, S. (2011, June). Virtual goes mainstream. *Smart Meetings: The Intelligent Way to Plan*. Retrieved from http://smartmeetings.com/event-planning-magazine/2011/06/virtual-goes-mainstream

Çakir, A. E. (2002). Virtual communities – a virtual session on virtual conferences. *Behaviour & Information Technology, 21*(5), 365-371.

Carlson Wagonlit Travel. (2010). Meetings and events: Where savings meet success. Retrieved from http://www.carlsonwagonlit.com/en/global/tmi/etm/meetings_and_events.html?src=EM07010206

Carpenter, J. M., & Moore, M. (2005). Consumer preferences for retail formats: Implications for tenant mix strategies. *Journal of Shopping Center Research, 12*(1), 1-21.

Casanova, M. B., Dae-Young, K., & Morrison, A. M. (2005). The relationships of meeting planners' profiles with usage and attitudes toward the use of technology. *Journal of Convention & Event Tourism, 7*(3/4), 19-43. doi:10.1300/J452v07n03_02

The Center for Generational Kinetics, LLC. (2011). *The top 5 rules for Gen Y communication*. Retrieved from http://www.genhq.com/GYRe5

Chang, T. C. (2004). Transborder tourism, borderless classroom: Reflections on a Hawaii-Singapore experience. *Journal of Geography in Higher Education, 28*(2), 179-195.

Chen, I. L., Nian-Shing, C., & Kinshuk. (2009). Examining the factors influencing participants' knowledge sharing behavior in virtual learning communities. *Journal of Educational Technology & Society, 12*(1), 134-148.

Chen, P., & Choi, Y. (2008). Generational differences in work values: A study of hospitality management. *International Journal of Contemporary Hospitality Management, 20*(6), 595-615.

Cheung, W., Chang, M. K., & Lai, V. S. (2000). Prediction of Internet and World Wide Web usage at work: A test of an extended Triandis model. *Decision Support Systems, 30*, 83-100.

Chudoba, K. M., Watson-Manheim, M. B., Crowston, K. & Lee, C. S. (2011). Participation in ICT-enabled meetings. *Journal of Organizational and End User Computing, 23*(2), 15-36.

Codrington, G. (2011). Detailed introduction to generational theory in Asia. Retrieved from http://tomorrowtoday.uk.com/articles/article044_generations_in_asia.htm

Conradi, E., Kavia, S., Burden, D., Rice, A., Woodham, L., Beaumont, C., & ... Poulton, T. (2009). Virtual patients in a virtual world: Training paramedic students for practice. *Medical Teacher, 31*(8), 713-720. doi:10.1080/01421590903134160

Convention Industry Council. (2011). *Convention Industry Council*. Retrieved from http://www.conventionindustry.org/CICMobile/mglossary.aspx

Cooney, B. (2011). 12 best practices for hybrid meetings. Retrieved from http://meetingsnet.com/virtualhybrid/12-best-practices-hybrid-meetings

Crawford, M. (2002). Enhancing school leadership: Evaluating the use of virtual learning communities. *Educational Management & Administration, 30*(4), 431.

Crews, T. B. (2004). Telecommunications course content: Input from information technology professionals. *Journal of Information Systems Education, 15*(4), 417-425.

Crews, T. B., Wilkinson, K., Hemby, K. V., McCannon, M., & Wiedmaier, C. (2006). *Delta P. Epsilom National Conference Book of Readings, Part IV, Research in Progress*, 147-159.

Csikszentmihalyi, M. (1975). *Beyond boredom and anxiety.* San Francisco, CA: Jossey-Bass.

Dale, C., & Lane, A. (2007). A wolf in sheep's clothing? An analysis of student engagement with virtual learning environments. *Journal of Hospitality, Leisure, Sport & Tourism Education, 6*(2), 100-108.

Davis, F. D. (1986). *A Technology Acceptance Model for empirically testing new end-user information systems: Theory and results* (Unpublished doctoral dissertation). MIT Sloan School of Management, Cambridge, MA.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of technology. *MIS Quarterly, 13*(3), 319-40.

Davis, F. D., Bagozzi, P. R., & Warshaw, R. P. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science, 35*(8), 982-1003.

Davis, F. D., & Venkatesh, V. (1996). A critical assessment of potential measurement biases in the technology acceptance model: Three experiments. *Internet Journal of Human-Computer Studies, 45*(1), 19-43.

Davis, J. A. (2004). Did growing up in the 1960s leave a permanent mark on attitudes and values? Evidence from the general social survey. *Public Opinion Quarterly, 68*(2), 161-183.

De Meuse, K. P., & Mlodzik, K. J. (2010). A second look at generational differences in the workforce: Implications for HR and talent management. *People & Strategy, 33*(2), 50-58.

DeMarco, D. (2007). Working with Generation X. *Skin, Inc., 1*(12), 116.

Diamantopoulos, A., & Winklhofer, H. M. (2001). Index construction with formative indicators: An alternative to scale development. *Journal of Marketing Research*, 38, 269-277.

Dixon, S., Behringer, R., & Mulligan, J. (2013). *Technology: Why invest and what's next?* Retrieved from

http://www.mpiweb.org/Libraries/Thought_Leadership/MPIFFOMWP2_Technology_WhatsNextWhyInvest.pdf

Donohoe, H. M., & Needham, R. D. (2009). Moving best practice forward: Delphi characteristics, advantages, potential problems, and solutions. *International Journal of Tourism Research, 11*(5), 415-437.

Dowling, C., Godfrey, J., & Gyles, N. (2003). Do hybrid flexible delivery teaching methods improve accounting students' learning outcomes? *Accounting Education, 12*(4), 373-391.

Doyle, M. (2013). *Virtual event definitions*. Retrieved from www.virtualedge.org/page/virtual-event-definitions

Edgar, J. (2002). Virtual exhibitions: A new product of the IT era. *Journal of Convention & Exhibition Management, 4*(2), 69.

Egri, C.P., & Ralston, D. A. (2004). Generation cohorts and personal values: A comparison of China and the United States. *Organization Science, 15*(2), 210-20.

Ennis, C. D. (1999). A theoretical framework: The central piece of a research plan. *Journal of Teaching Physical Education, 18,* 129-140.

Estelami, H. (2012). An exploratory study of the drivers of student satisfaction and learning experience in hybrid-online and purely online marketing courses. *Marketing Education Review, 22*(2), 143-156.

Fenich, G. G. (2012). *Meetings, expositions, events and conventions: An introduction to the industry*. Boston, MA: Pearson Hall.

Fenich, G. G. (2015). *Planning and management of meetings, expositions, events and conventions.* New Jersey: Pearson Hall.

Fenich, G. G., Scott-Halsell, S., & Hashimoto, K. (2011). An investigation of technological uses by different generations as it relates to meetings and events: A pilot study. *Journal of Convention & Event Tourism, 12*(1), 53-63.

Fenich, G. G., Scott-Halsell, S., & Ogbeide, G. C. (2012). *What the Millenial generation prefers in their meetings, conventions and events.* Retrieved from http://www.pcma.org/docs/be-in-the-know-docs/millenial_generation_findings.pdf?sfvrsn=0

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research.* Reading, MA: Addison-Wesley.

Fisher, T. F., & Crabtree, J. L. (2009). Generational Cohort Theory: Have we overlooked an important aspect of the entry-level occupational therapy doctorate debate? *American Journal of Occupational Therapy, 63*, 656-660.

Fjelstul, J., Severt, K., & Breiter, D. (2012). *A meeting industry take on Generation Y*. MPI Foundation.

Flowers, A. A., & Gregson, K. (2012). Decision-making factors in selecting virtual worlds for events: Advocacy, computer efficacy, perceived risks, and collaborative benefits. *Event Management, 16*(4), 319-334.

Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50.

Frandsen, B. M. (2009). *Leading by recognizing generational differences*. Retrieved from http://www.Itlmagazine.com/article/leading-recognizing-generational-differences

Friedman, D., Karniel, Y., & Dinur, A. (2009). Comparing group discussion in virtual and physical environments. *Presence: Teleoperators & Virtual Environments, 18*(4), 286-293.

Fryatt, J., Janssen, R. W., John, R., Garriga Mora, R., & Smith, S. (2012). *Lessons learned: Hybrid meetings*. Retrieved from http://www.mpiweb.org/Libraries/Research_and_Reports/HYBRID-Executive_Summary.pdf

Fryatt, J., Garriga Mora, R., Janssen, R., John, R., & Smith, S. (2012). *Hybrid meetings and events*. Retrieved from www.mpiweb.org/libraries/research_and-Reports/

Gardiner, S., King, C., & Grace, D. (2012). Travel decision making: An empirical examination of generational values, attitudes, and intentions. *Journal of Travel Research, 52*(3), 310-324.

Gentry, W. A., Deal, J. J., Griggs, T. L., Mondroe, S. P., & Cox, B. D. (2011). A comparison of generational differences in endorsement of leadership practices with actual leadership skill level. *Consulting Psychology Journal: Practice & Research, 63*(1), 39-49.

Giancola, F. (2006). The generation gap: More myth than reality? *Human Resource Planning, 29*(4), 32-37.

Giang, V. (2013, September 9). Here are the strengths and weaknesses of Millennials, Gen X, and Boomers. *Business Insider*. Retrieved from http://www.businessinsider.com/how-millennials-gen-x-and-boomers-shape-the-workplace-2013-9

Gomezelj, D., & Čivre, Ž. (2012). Tourism graduate students' satisfaction with online learning. *Tourism, 60*(2), 159-174.

Grays, L. J., Del Bosque, D., & Costello, K. (2008). Building a better M.I.C.E. trap: Using virtual focus groups to assess subject guides for distance education students. *Journal of Library Administration, 48*(3/4), 431-453.

Gresalfi, M., & Barab, S. (2011). Learning for a reason: Supporting forms of engagement by designing tasks and orchestrating environments. *Theory into Practice, 50*(4), 300-310. doi:10.1080/00405841.2011.607391

Guo, Z., D'Ambra, J., Turner, T., & Zhang, H. (2009). Improving the effectiveness of virtual teams: A comparison of video-conferencing and face-to-face communication in China. *IEEE Transactions on Professional Communication, 52*(1), 1-16.

Hair, J. F., Hult, G. T., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM).* California: Sage Publications.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice, 19,* 139-151.

Hakonen, M., & Lipponen, J. (2008). Procedural justice and identification with virtual teams: The moderating role of face-to-face meetings and geographical dispersion. *Social Justice Research, 21*(2), 164-178. doi:10.1007/s11211-008-0070-3

Harter, J., & Agrawal, S. (2014, January 20). Baby boomers: Looking at the largest generation. *Gallup Economy*. Retrieved from http://www.gallup.com/poll/166952/baby-boomers-reluctant-retire.aspx

Haven, C., & Botterill, D. (2003). Virtual learning environments in hospitality, leisure, tourism and sport: A review. *Journal of Hospitality, Leisure, Sport & Tourism Education, 2*(1), 75-92.

Haynie, L., Martin, T., White, J., Norwood, A. A., & Walker, J. T. (2006). Generational age differences impact the college classroom. *Journal of the Mississippi Academy of Sciences, 52*(1), 97.

Heath, C., Luff, P., & Sellen, A. (1995). Reconsidering the virtual workplace: Flexible support for collaborative activity. *Proceedings of the Fourth European Conference on Computer-Supported Cooperative Work,* 83-99.

Helmer, O. (1977). Problems in future research: Delphi and causal cross-impact analysis. *Futures,* 17-31.

Henseler, J., & Sarstedt, M. (2013). Goodness-of-fit indices for partial least squares path modeling. *Computational Statistics, 28*(2), 565-580. doi:10.1007/s00180-012-0317-1

Hewlett, S., Sherbin, L., & Sumberg, K. (2009). How Gen Y & Boomers will reshape your agenda. *Harvard Business Review, 87*(7/8), 71-76.

Hill, R. P. (2002). Managing across generations in the 21st century: Important lessons from the ivory trenches. *Journal of Management Inquiry, 11*(1), 60-66.

Hodge, E. M., Tabrizi, M. N., Farwell, M. A., & Wuensch, K. L. (2007). Virtual reality classrooms strategies for creating a social presence. *International Journal of Social Sciences, 2*(2), 105-109.

Houck, C. (2011). Multigenerational and virtual: How do we build a mentoring program for today's workforce? *Performance Improvement, 50*(2), 25-30.

Huang, Y., Backman, S. J., & Backman, K. F. (2011). Student attitude toward virtual learning in Second Life: A flow theory approach. *Journal of Teaching in Travel & Tourism, 10*(4), 312-334.

Hunter, J. E., Schmidt, F. L., & Jackson, G. B. (1982). *Meta-analysis: Cumulating research findings across studies.* Beverly Hills, CA: Sage.

Infocom. (2012). *Meetings in America: A study of trends, costs, and attitudes toward business travel and teleconferencing, and their impact on productivity.* Retrieved from https://e-meetings.verizonbusiness.com/global/en/meetingsinamerica/uswhitepaper.php

Jakobson, L. (2013, October 1). Research: Budgets will remain tight in 2014. *Successful Meetings*. Retrieved from http://www.successfulmeetings.com/Event-Planning/Meeting-Planning/Articles/Research--Budgets-Will-Remain-Tight-in-2014/

Jelfs, A., & Richardson, J. E. (2013). The use of digital technologies across the adult life span in distance education. *British Journal of Educational Technology, 44*(2), 338-351. doi:10.1111/j.1467-8535.2012.01308.x

Jin, L., Wen, Z., & Gough, N. (2010). Social virtual worlds for technology-enhanced learning on an augmented learning platform. *Learning, Media, and Technology, 35*(2), 139-153.

Jones, P. (2004). Finding the hospitality industry? Or finding hospitality schools of thought? *Journal of Hospitality, Leisure, Sport and Tourism Education, 3*(1), 33-45.

Josiam, B., Crutsinger, C., Reynolds, J., Dotter, T., Thozhur, S., & Baum, T. (2009). An empirical study of the work attitudes of generation Y college students in the USA: The case of hospitality and merchandising undergraduate majors. *Journal of Services Research, 9*(1), 5-30.

Julsrud, T., Hjorthol, R., & Denstadli, J. (2012). Business meetings: Do new videoconferencing technologies change communication patterns? *Journal of Transport Geography, 24*, 396-403. doi:10.1016/j.jtrangeo.2012.04.009

Keene, D. L., & Handrich, R. R. (2011). Generation X members are "active, balanced and happy". Seriously? *Jury Expert, 23*(6), 29-43.

Kim, D. Y., Jang, S., & Morrison, A. M. (2011). Factors affecting organizational information technology acceptance: A comparison of convention and visitor bureaus and meeting planners in the United States. *Journal of Convention & Event Tourism, 12*(1), 1-24.

Kim, D. Y., & Park, O. (2009). A study on American meeting planners' attitudes toward and adoption of technology in the workplace. *Tourism & Hospitality Research, 9*(3), 209-223. doi:10.1057/thr.2008.44

Kirkley, S. E., & Kirkley, J. R. (2005). Creating next generation blended learning environments using mixed reality, video games and simulations. *Techtrends: Linking Research & Practice To Improve Learning, 49*(3), 42-89.

Koh, J., & Kim, Y. G. (2003). Sense of virtual community: A conceptual framework and empirical validation. *International Journal of Electronic Commerce*, *8*(2), 75-93.

Koontz, H., & O'Donnell, C. (1976). *Management: A systems and contingency analysis of managerial functions* (6th ed.). New York, NY: McGraw-Hill.

Layard, R., & Mincer, J. (1985). Trends in women's work, education, and family building: Part 2. *Journal of Labour Economics*, *3*(1), 351-96.

Lee, M. J., & Back, K. J. (2005). A review of economic value drivers in convention and meeting management research. *International Journal of Contemporary Hospitality Management, 17*(5), 409-420.

Lillie, R. E., Liu, X., & Kang, G. (2011). Creating and maintaining instructor/student connection between class meetings: The use of Eyejot – a video messaging technology. *American Journal of Business Education, 4*(10), 11-16.

Linderman, R. W., Reiners, D., & Steed, A. (2009). Practicing what we preach: IEEE VR 2009 virtual program committee meeting. *IEEE Computer Graphics and Applications, 29*(2), 80-83.

Litvin, S. W. (2003). The Cyber-Conference: Vision or Illusion? *Journal of Convention & Exhibition Management, 5*(1), 1.

Liwei, H. (2011). The perceptual learning styles of hospitality students in a virtual learning environment: The case of Taiwan. *Journal of Hospitality, Leisure, Sport & Tourism Education, 10*(1), 114-127.

Ludwig, B. (1997). Predicting the future: Have you considered using the Delphi methodology? *Journal of Extension, 35*(5), 1-4.

Lugosi, P., Lynch, P., & Morrison, A. (2009). Critical hospitality management research. *The Service Industries Journal, 29*(10), 1465-1478.

Macky, K., Gardner, D., & Forsyth, S. (2008). Generational differences at work: Introduction and overview. *Journal of Managerial Psychology, 23*(8), 857-861.

Market Research Media. (2012, February 7). Virtual conference & trade show market forecast 2013-2018. *Market Research Media*. Retrieved from http://www.marketresearchmedia.com/2010/02/07/virtual-conference/

Markman, K. M. (2009). So what shall we talk about. *Journal of Business Communication, 46*(1), 150-170. doi:10.1177/0021943608325751

Martin, C. A. (2005). From high maintenance to high productivity. *Industrial and Commercial Training, 37*(1), 39-44.

Masrom, M. (2007). *Technology acceptance model and E-learning*. Paper presented at the 12th International Conference on Education: Sultan Hassanal Bolkiah Institute of Education - Universiti Brunei Darussalam.

McHarg, J., Goding, L., Caldarone, E., Regan de Bere, S., & McLachlan, J. (2006). Availability of a virtual learning environment does not compensate for the lack of a physical facility. *Medical Teacher, 28*(3), 258-263. doi:10.1080/01421590600605132

McKechnie, S., Winklhofer, H., & Ennew, C. (2006). Applying the technology acceptance model to the online retailing of financial services. *International Journal of Retail & Distribution Management, 34*(4/5), 388-410.

Meredith, G. E., Schewe, C. D., & Karlovich, J. (2002). *Defining markets, defining moments: America's 7 generational cohorts, their shared experiences, and why businesses should care*. Hoboken, NJ: Wiley.

Miller, M. T., & Mei-Yan, L. (2003). Serving non-traditional students in e-learning environments: Building successful communities in the virtual campus. *Educational Media International, 40*(1/2), 163.

Molesworth, M. (2004). Collaboration, reflection and selective neglect: Campus-based marketing students' experiences of using a virtual learning environment. *Innovations in Education & Teaching International, 41*(1), 79-92.

MPI. (2010). *Future Watch.* Dallas, TX: Meeting Professionals International.

Mueller, D., & Strohmeier, S. (2010). Design characteristics of virtual learning environments: An expert study. *International Journal of Training & Development, 14*(3), 209-222. doi:10.1111/j.1468-2419.2010.00353.x

Mujtabe, B., & Thomas, G. (2005). Leading and managing disparate generations in cross-cultural learning organizations. *College Teaching Methods and Styles Journal, 1*(1), 41-55.

Nakanishi, H. (2004). FreeWalk: A social interaction platform for group behaviour in a virtual space. *International Journal of Human-Computer Studies, 60*(4), 421. doi:10.1016/j.ijhcs.2003.11.003

Noble, S. M., & Schewe, C. D. (2003). Cohort segmentation: An exploration of its validity. *Journal of Business Research, 56*(12), 979-87.

Oblinger, D. (2003). Boomers, GenXers, and Millenials: Understanding the new students. *Educause Review, 38*(4), 37-47.

Park, N., Lee, K. M., & Cheong, P. H. (2007). University instructors' acceptance of electronic courseware: An application of the technology acceptance model. *Journal of Computer-Mediated Communication, 13*(1), 163-186. doi:10.1111/j.1083-6101.2007.00391.x

Paterson, B. L., Thorne, S. E., Canam, C., & Jillings, C. (2001). *Meta-study of qualitative health research*. Thousand Oaks, CA: Sage.

PCMA invests in virtual and hybrid meetings. (2011, October 7). *Meetingsnet*. Retrieved from meetingsnet.com/virtualhybrid/pcma-invests-virtual-and-hybrid-meetings

Pearlman, D. M., & Gates, N. A. (2010). Hosting business meetings and special events in virtual worlds: A fad or the future? *Journal of Convention & Event Tourism, 11*(4), 247-265. doi:10.1080/15470148.2010.530535

Perine, D. (2012, September 28). How Gen Y, Gen X and Boomers interact. *EnMast: Business Owners Belong*. Retrieved from http://www.enmast.com/2012/09/gen-y-gen-x-boomer-meeting-styles-preferences/

Petralia, P. (2011). Here, there and in-between: Rehearsing over skype. *Performance Research, 16*(3), 113-116. doi:10.1080/13528165.2011.606036

PricewaterhouseCoopers, Ltd. (2014, January 30). The economic significance of meetings to the U.S. economy. *Travel Daily News*. Retrieved from http://www.scribd.com/doc/206908168/CIC-Meetings-Ess-Update-Executive-Summary

Privitera, A., Martino, F., & Gamberini, L. (2012). Virtual meeting analyzer: A web application to visualize and analyze social networks emerging in group meetings. *Psychnology Journal, 10*(1), 39-51.

Professional Convention Management Association, UMB Studios, & Virtual Edge Institute. (2011). *Business motivations and social behaviors for in-person and online events.* Retrieved from http://www.virtualedgeinstitute.com/business-motivations-report

Redpath, L. (2012). Confronting the bias against on-line learning in management education. *Academy of Management Learning & Education, 11*(1), 125-140.

Reidsma, D., Op den Akker, R., Rienks, R., Poppe, R., Nijholt, A., Heylen, D., & Zwiers, J. (2007). Virtual meeting rooms: From observation to simulation. *AI & Society, 22*(2), 133-144. doi:10.1007/s00146-007-0129-y

Reilly, P. (2012). Understanding and teaching Generation Y. *English Teaching Forum, 50*(1), 2-11.

Reisenwitz, T. H., & Iyer, R. (2009). Differences in Generation X and Generation Y: Implications for the organization and marketers. *Marketing Management Journal, 19*(2), 91-103.

Rhoads, M. (2010). Face-to-face and computer-mediated communication: What does theory tell us and what have we learned so far? *Journal of Planning Literature, 25*(2), 111-122. doi:10.1177/0885412210382984

Rose, N., & Steinbrink, S. (2011). Real and virtual meetings technology. *Phocuswright Innovation Edition*, 1-14.

Ryan, G. W., & Bernard, H. R. (2003). Techniques to identifying themes. *Field Methods, 15*(1), 85-109. doi:10.1177/1525822X02239569

Ryder, N. B. (1965). The cohort as a concept in the study of social change. *American Sociological Review, 30*(6), 843-861.

Salajan, F. D., Schonwetter, D. J., & Cleghorn, B. M. (2010). Student and faculty inter-generational digital divide: Fact or fiction? *Computers & Education, 55*, 1393-1403.

Schümmer, T., Tandler, P., & Haake, J. (2012). The next-generation business meeting: From i-lands to flexible meeting landscapes. *Universal Access in The Information Society, 11*(3), 239-258. doi:10.1007/s10209-011-0239-7

Severt, K., Fjelstul, J. & Breiter, D. (2013). Information communication technologies: Usages and preferences of Generation Y students and meeting professionals. *Journal of Convention & Event Tourism, 14*(2), 124-143.

Sheivachman, A. (2011). Meetings industry a significant driver of roomnights. *Hotel Management, 226*(4), 6-49.

Shin, B., & Higa, K. (2005). Meeting scheduling: Face-to-face, automatic scheduler, and email based coordination. *Journal of Organizational Computing and Electronic Commerce, 15*(2), 137-159.

Singh, N., & Myong Jae, L. (2008). Exploring perceptions toward education in 3-D virtual environments: An introduction to "Second Life." *Journal of Teaching in Travel & Tourism, 8*(4), 315-327.

Smith, S. (2012). *The value of virtual*. Retrieved from http://www.mpiweb.org/Portal/Content/20120210/The_Value_of_Virtual

Smith, S. L., & Kline, S. F. (2010). Crisis preparedness and meeting planners' perceptions. *Journal of Convention & Event Tourism, 11*(1), 62-78.

Sox, C. B., Kline, S. F., & Crews, T. B. (2014). Identifying best practices, opportunities and barriers in meeting planning for Generation Y. *International Journal of Hospitality Management, 36*, 244-254. doi:10.1016/j.ijhm.2013.09.009

Stepchenkova, S., & Mills, J. E. (2010). Destination image: A Meta-analysis of 2000-2007 research. *Journal of Hospitality Marketing & Management, 19*(6), 575-609. doi:10.1080/19368623.2010.493071

Stitt-Gohdes, W. L., & Crews, T. B. (2004). The Delphi technique: A research strategy for career and technical education. *Journal of Career and Technical Education, 20*(4), 53-65.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques.* Thousand Oaks, CA: Sage.

Strauss, W., & Howe, N. (1991). *Consumer behavior*. London, England: The Drydon Press.

Strauss, W., & Howe, N. (1991). *Generations: The history of America's future, 1584 to 2069*. New York, NY: William Morrow.

Strohm, M. (2014, March 11). Millenials poised to take over the workplace. *Interest.com*. Retrieved from http://www.interest.com/savings/advice/millennials-poised-to-take-over-american-work-place/

Sudac, A., Bîzoi, M., & Filip, F. (2009). Exploring multimedia Web conferencing. *Informatica Economica, 13*(3), 5-17.

Sumak, B., Hericko, M., & Pusnik, M. (2011). A meta-analysis of e-learning technology acceptance: The role of user types and e-learning technology types. *Computers in Behavior, 27*(6), 2067-2077.

Swearingen, S., & Liberman, A. (2004). Nursing generations: An expanded look at the emergence of conflict and its resolutions. *Health Care Manager, 23*(1), 54-64.

Szajna, B. (1996). Empirical evaluation of the revised technology acceptance model. *Management Science, 42*(1), 85-92.

Tabor, S. (2007). Narrowing the distance: Implementing a hybrid learning model for information security education. *The Quarterly Review of Distance Education, 8*(1), 47-57.

Taylor, P., Funk, C., & Clark, A. (2007, February 22). Americans and social trust: Who, where and why. *Pew Research.* Retrieved from http://www.pewsocialtrends.org/2007/02/22/americans-and-social-trust-who-where-and-why/

Taylor, S., & Todd, P.A. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research*, *6*(2), 144-174.

Taylor-Powell, E. (2002). *Quick tips collecting data: Delphi technique*. Retrieved from http://www.uwex\.edu/ces/pdande/resources/pdf/Tipsheet4.pdf

Tenenhaus, M., Amato, S., & Esposito Vinzi, V. (2004). *A global goodness of fit for PLS structural equation modeling*. Paper presented at the XLII SIS Scientific Meeting. Padova, Italy: CLEUP.

Tsiatsos, T., Andreas, K., & Pomportsis, A. (2010). Evaluation framework for collaborative educational virtual environments. *Journal of Educational Technology & Society, 13*(2), 65-77.

Tsui, B. 2001. Generation next. *Advertising Age, 72*(3), 14-15.

Tulgan, B. (2002). Is Generation Y losing faith in institutions? *Rainmaker Thinking, Inc., 88*.

Van Scotter, J., & Culligan, P. E. (2003). The value of theoretical research and applied research for the hospitality industry. *Cornell Hotel and Restaurant Administration Quarterly, 44*(2), 14-27.

Vandenberg, L., & Reese, L. (2011). Virtual training or virtual success: Michigan State University extension's virtual conference. *Journal of Extension, 49*(6), 14.

Venkatesh, V., Morris, M., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425-478.

Vinzi, E, V., Chin, W. W., Henseler, J., & Wang, H. (2010). *Handbook of Partial Least Squares: Concepts, Methods and Applications (Springer Handbooks of Computational Statistics Series, vol. II)*. Heidelberg, Dordrecht, London, New York: Springer.

Virtual Edge Community. *Virtual event definitions*. Retrieved from www.virtualedge.org/page/virtual-event-definitions

Virtual Edge Institute. (2011). *Virtual Edge Institute announces first certification program for digital event strategist*. Retrieved from http://www.virtualedgeinstitute.com/2011/02/virtual-edge-institute-announces-first-certification-program-for-digital-event-strategist/

Virtual Edge Institute. (2012). *Hybrid events gain momentum*. Retrieved from http://www.virtualedgeinstitute.com/2012/03/hybrid-events-gain-momentum/

Wagenaar, S., & Hulsebosch, J. (2008). From "a meeting" to "a learning community." *Group Facilitation: A Research and Applications Journal, 9*, 14-36.

Wang, Y., & Braman, J. (2009). Extending the classroom through Second Life. *Academic Journal of Information Systems Education, 20*(2).

Wasson, C. (2004). Multitasking during virtual meetings. *Human Resource Planning, 27*(4), 47-60.

Williams, K. C., & Page, R. A. (2011). Marketing to the generations. *Journal of Behavioral Studies in Business, 3*(1), 37-53.

Williams, K. C., Page, R. A., Petrosky, A. R., & Hernandez, E. H. (2010). Multi-generational marketing: Descriptions, characteristics, lifestyles, and attitudes. *Journal of Applied Business and Economics, 11*(2), 21-36.

Wu, J., Wang, S., & Lin, L. (2007). Mobile computing acceptance factors in the health care industry: A structural equation model. *International Journal of Medical Informatics, 76*(1), 66-77.

Yousuf, M. I. (2007). Using expert's opinions through Delphi technique. *Practical Assessment, Research & Evaluation, 12*(4), 1-8.

Yu-Chih, H., Backman, S. J., & Backman, K. F. (2010). Student attitude toward virtual learning in second life: A flow theory approach. *Journal of Teaching in Travel & Tourism, 10*(4), 312-334.

Zavada, N., & Garner, C. (2013). Get going with hybrid meetings. *Corporate Meetings & Incentives, 32*(4), 27.

Zickuhr, K. (2010, December 16). Generations 2010. *Pew Research*. Retrieved from http://www.pewinternet.org/Reports/2010/Generations-2010.aspx

APPENDIX A – SURVEY QUESTIONS FOR ARTICLE 3

The following is the survey used for in the article: *Technology use within meetings: exploring the generational perspective through partial least squares:*

Your response is very valuable. We are conducting this study to investigate technology use within meetings as noted by various generations. This survey should take approximately 10 minutes to complete. Once you complete the survey you will be given a code to enter in Mechanical Turk. You will also be asked to enter your worker ID. Prior to beginning the survey, please review the following definitions for virtual and hybrid meetings. Virtual meetings are "digital events, meetings and learning technologies that include: webcasting (streaming media); virtual environments (2D and 3D) such as virtual events, virtual trade shows, conferences, campuses, learning environments; and perpetual (365 days per year) business environments" (Professional Convention Management Association, UMB Studios and the Virtual Edge Institute,2011 p. 3). Hybrid meetings "involve a mixture of physical events with elements of a virtual event usually running simultaneously and with overlapping content and interactive elements" (Doyle, 2013, p. 1). For the following questions, please consider any of the following as technology in meetings: webcasting (streaming media); virtual environments (2D and 3D) such as virtual events, virtual trade shows, conferences, campuses, learning environments; and perpetual (365 days per year) business environments; and/or a mixture of physical events with elements of a virtual event usually running simultaneously and with overlapping content and interactive elements.

How many VIRTUAL meetings have you attended within the last 2 years?

- ❍ 0 (1)
- ❍ 1 - 2 (2)
- ❍ 3 - 4 (3)
- ❍ 5 - 6 (4)
- ❍ 7 - 8 (5)
- ❍ 9 - 10 (6)
- ❍ More than 10 (7)

How many HYBRID meetings have you attended within the last 2 years?

- ❍ 0 (1)
- ❍ 1 - 2 (2)
- ❍ 3 - 4 (3)
- ❍ 5 - 6 (4)
- ❍ 7 - 8 (5)
- ❍ 9 - 10 (6)
- ❍ More than 10 (7)

I have used the following technology within a meeting (check all that apply):

- ❑ Webcasting (streaming media) (1)
- ❑ Virtual environments (2D and/or 3D) (2)
- ❑ Virtual trade shows, conferences, campuses, learning environments; and/or perpetual (365 days per year) business environments (3)
- ❑ Face-to-face meetings with elements of a virtual event running simultaneously (such as speakers or audiences being streamed into a meeting) (4)
- ❑ Interactive technology (such as online voting or texting questions to speakers) (5)
- ❑ Other such as: (6) _____

On average, I use technology within meetings:

- ❍ Less than 1 x per year (1)
- ❍ 1 - 2 x per year (2)
- ❍ 3 - 4 x per year (3)
- ❍ 5 - 6 x per year (4)
- ❍ 7 -8 x per year (5)
- ❍ 9 - 10 x per year (6)
- ❍ more than 10 x per year (7)

I have been using technology within meetings for:

- ❍ Under 1 year (1)
- ❍ 1 - 2 years (2)
- ❍ 3 - 4 years (3)
- ❍ 5 - 6 years (4)
- ❍ 7 - 8 years (5)
- ❍ 9 - 10 years (6)
- ❍ more than 10 years (7)

Please rate the following statements (1 = Strongly Disagree and 5 = Strongly Agree):

	Strongly Disagree (1)	Disagree (2)	Disagree Somewhat (3)	Neither Agree or Disagre	Agree Somewhat (5)	Agree (6)	Strongly Agree (7)

				e (4)			
Technology in meetings is currently available for me to use. (1)	❍	❍	❍	❍	❍	❍	❍
I use technology in meetings because I have chosen to, not because I am required to use it. (2)	❍	❍	❍	❍	❍	❍	❍
I am knowledgeable about how to use technology within meetings. (3)	❍	❍	❍	❍	❍	❍	❍
I use technology within meetings intensively (throughout meetings). (4)	❍	❍	❍	❍	❍	❍	❍
I use technology within meetings frequently. (5)	❍	❍	❍	❍	❍	❍	❍
I use technology within a variety of different meetings. (6)	❍	❍	❍	❍	❍	❍	❍
Overall, I use technology within	❍	❍	❍	❍	❍	❍	❍

meetings a lot. (7)							

When I was growing up, the following influenced my behavior toward the use of technology within meetings today:

	Strongly Disagree (1)	Disagree (2)	Disagree Somewhat (3)	Neither Agree or Disagree (4)	Agree Somewhat (5)	Agree (6)	Strongly Agree (7)
My Friends (1)	❍	❍	❍	❍	❍	❍	❍
My Family Values (2)	❍	❍	❍	❍	❍	❍	❍
My Family's Financial Circumstances (3)	❍	❍	❍	❍	❍	❍	❍
My Religious Affiliation (4)	❍	❍	❍	❍	❍	❍	❍
Educational Opportunities within Society (5)	❍	❍	❍	❍	❍	❍	❍
Employment Opportunities within Society (6)	❍	❍	❍	❍	❍	❍	❍
The Economy (7)	❍	❍	❍	❍	❍	❍	❍
Society's Values (8)	❍	❍	❍	❍	❍	❍	❍

Using technology within meetings is:

	Strongly Disagree (1)	Disagree (2)	Disagree Somewhat (3)	Neither Agree or Disagree (4)	Agree Somewhat (5)	Agree (6)	Strongly Agree (7)
Wise (1)	❍	❍	❍	❍	❍	❍	❍
Favorable (2)	❍	❍	❍	❍	❍	❍	❍
Beneficial (3)	❍	❍	❍	❍	❍	❍	❍
Positive (4)	❍	❍	❍	❍	❍	❍	❍
Good (5)	❍	❍	❍	❍	❍	❍	❍

Within meetings, I find that:

	Strongly Disagree (1)	Disagree (2)	Disagree Somewhat (3)	Neither Agree or Disagree (4)	Agree Somewhat (5)	Agree (6)	Strongly Agree (7)
Technology is cumbersome to use (1)	❍	❍	❍	❍	❍	❍	❍
Learning to operate technology is easy (2)	❍	❍	❍	❍	❍	❍	❍
Interacting with technology is often frustrating (3)	❍	❍	❍	❍	❍	❍	❍
It is easy to get technology to perform (4)	❍	❍	❍	❍	❍	❍	❍
Technology is rigid and inflexible (5)	❍	❍	❍	❍	❍	❍	❍
It is easy for me to remember how to	❍	❍	❍	❍	❍	❍	❍

perform tasks using technology (6)							
Interacting with technology requires a lot of mental effort (7)	❍	❍	❍	❍	❍	❍	❍
My interaction with technology is clear and understandable (8)	❍	❍	❍	❍	❍	❍	❍
It takes a lot of effort to become skillful at using technology (9)	❍	❍	❍	❍	❍	❍	❍
Technology is easy to use (10)	❍	❍	❍	❍	❍	❍	❍

Using technology within meetings:

	Strongly Disagree (1)	Disagree (2)	Disagree Somewhat (3)	Neither Agree or Disagree (4)	Agree Somewhat (5)	Agree (6)	Strongly Agree (7)
Improves the quality of the meeting (1)	❍	❍	❍	❍	❍	❍	❍
Gives me greater control over the meeting (2)	❍	❍	❍	❍	❍	❍	❍

Enables me to accomplish tasks more quickly (3)	❍	❍	❍	❍	❍	❍	❍
Supports critical aspects of my contribution to the meeting (4)	❍	❍	❍	❍	❍	❍	❍
Increases my productivity within the meeting (5)	❍	❍	❍	❍	❍	❍	❍
Improves my meeting performance (6)	❍	❍	❍	❍	❍	❍	❍
Allows me to accomplish more work than would otherwise be possible (7)	❍	❍	❍	❍	❍	❍	❍
Enhances my effectiveness within the meeting (8)	❍	❍	❍	❍	❍	❍	❍
Makes it easier to participate within the meeting (9)	❍	❍	❍	❍	❍	❍	❍
Makes it easier to understand meeting content (10)	❍	❍	❍	❍	❍	❍	❍

Is useful to the meeting experience (11)	❍	❍	❍	❍	❍	❍	❍

I intend to:

	Strongly Disagree (1)	Disagree (2)	Disagree Somewhat (3)	Neither Agree or Disagree (4)	Agree Somewhat (5)	Agree (6)	Strongly Agree (7)
Use technology within meetings to improve my meeting engagement whenever possible (1)	❍	❍	❍	❍	❍	❍	❍
Use available technology within meetings frequently (2)	❍	❍	❍	❍	❍	❍	❍
Use available technology within meetings only when absolutely necessary (3)	❍	❍	❍	❍	❍	❍	❍
Be a heavy user of technology within meetings (4)	❍	❍	❍	❍	❍	❍	❍

Please select the category for your age. Born in:

- ❍ 1945 or before 1945 (1)
- ❍ 1946 - 1964 (2)
- ❍ 1965 - 1978 (3)
- ❍ 1979 - 2000 (4)
- ❍ 2001 or after 2001 (5)

Consider the following definitions: Virtual Meetings are "digital events, meetings and learning technologies that include: webcasting (streaming media); virtual environments (2D and 3D) such as virtual events, virtual tradeshows, conferences, campuses, learning environments; and perpetual (365 days per year) business environments." Hybrid meetings "involve a mixture of physical events with elements of a virtual event usually running simultaneously and with overlapping content and interactive elements."
I am employed by a:

- ❍ Small business (1)
- ❍ Corporation (2)
- ❍ Association (3)
- ❍ Government (4)
- ❍ Self-employed (5)
- ❍ Currently not employed (6)
- ❍ Student (7)
- ❍ Other (8)

I am:

- ❍ Male (1)
- ❍ Female (2)

In which country do you reside?
In what state do you currently reside?
Thank you for completing this survey.