MILLENNIALS AND MUSIC

An Undergraduate Research Scholars Thesis

by

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ABSTRACT

Millennials and Music. (May 2015)

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The intent of this quantitative study was to describe and compare the consuming and purchasing habits of members of the Millennial, Generation X, Baby Boomer, and Silent Generations. As part of a larger study, quantitative data were collected through randomized survey distribution methods in eight cities, in three western states. In this study, Bandura's (1986) social cognitive theory was used to understand the relationship between levels of engagement and Millennials' music consumption habits. Significant differences existed among generations including listening habits (i.e., duration, platform, and mode), willingness to pay for music, and influence of advertisements on music purchasing behavior.

ACKNOWLEDGMENTS

This research would not have been possible without the unfailing mentorship and support of our professor Dr. Billy McKim. Thank you for your guidance and patience throughout this entire process. It never went underappreciated. We would also like to thank the student researchers who aided in the data collection portion of this project. We are also grateful for the support we have received from the Agricultural Leadership Education and Communication department throughout the past year and to the many students who have become interested in research because of what our department provides.

NOMENCLATURE

SCT	Social Cognitive Theory
DOMB	Drop-off/ Mail-back
DOPU	Drop-off/ Pick-up
USPS	United States Postal Service

CHAPTER I

INTRODUCTION

Meet the Millennial

The Millennial generation, persons born between the years of 1977 and 1995 (Nielsen, 2014), are forging their path in history as one of the most socially advanced generations in America. Millennials are known as "digital natives" – the only generation for which new technology is not something they have had to adapt to (Pew Research Center, 2014). Researchers who have studied the public stated that continuous engagement is necessary to keep Millennials interested and feeling like a brand is adding value to their lives. Ranging in age from approximately 19 to 38, Millennials are quickly becoming the world's most vital source of economic sustainability as they mature in both age and future buying patterns.

Previous studies, such as Robert Heath's *Emotional Engagement; How Television Builds Big Brands At Low Attention* (2009) and Brodie, Hollenbeek, Juric, and Ilic's *Customer Engagement: Conceptual Domain, Fundamental Propositions, and Implications for Research,* have attempted to conceptualize the term "consumer engagement". Heath defines engagement as the amount of subconscious "feeling". However, few of these have applied consumer engagement to the Millennial generation.

Despite the widespread practice of consumer engagement and the growing influence Millennials have on the current U.S. economy, few studies have shown the dyadic relationship between the two. For example, in a popular press article by Jerry Colliano (2013), he pointed out that music

travels through much more meaningful social circles on the route to discovery, causing difficulty for the radio industry to cater to their young audience. Studies, including Gailewicz's *Meet the Millennials: The consumers to change the marketing landscape* (2014), have shown that brands providing more depth or substance to their offerings and that give greater explanations of why they are relevant, give Millennials more reason to make the brand a part of their lives. However, what these researchers have failed to further investigate is whether or not this remains applicable to the music industry.

Statement of purpose

The purpose of this study was to use Bandura's social cognitive theory (Bandura, 1986) as a guiding framework to discover generational differences among consumers of music as well as their purchasing habits. SCT is based on three determinants – personal, behavioral and environmental. The questions used in this study were developed to adhere to these three determinants.

CHAPTER II

LITERATURE REVIEW

Previous studies

Recent studies have investigated the characteristics and behavior of Millennials, however no research was found that analyzed Millennials using SCT. Nielson (2014) created a comprehensive study on Millennials and stated that technology remains a part of the Millennial identity. Nielsen (2014) also further concluded that Millennials have a more positive view on the way technology affects their lives than any other generation, resulting in a 74 percent response in the belief that technology makes their lives easier.

Prensky (2001) noted emergent differences between the digital native generations (those who have grown up constantly surrounded by today's technology) and digital immigrants (those who at one point or another have learned to adopt most aspects of new technology). Today's students speak a digitally native language, found in computers, video games and the Internet. This study is unique in that it recognizes the importance of the environmental determinant noted within SCT. While most digital immigrants will learn to adapt to this new language environment, they will more than likely always retain a portion of their past language.

In reference to environmental consumption and a technologically advanced generation, Ulsperger, Hodges and Paul (2010, p.126) noted that the illegal downloading of music and overall consumption of digital products is a large concern today. Ulsperger, Hodges, and Paul (2010) further discovered that while people view walking into a store and stealing a CD as being

lawfully wrong, most are not sure if the same consequences intrinsically apply to intangible exchanges of music.

Theoretical framework

Bandura's SCT is one of the most highly influential and widely celebrated theories in the field of psychology (Pajares et al., 2009). This theory was chosen because it provides researchers with a mechanism to analyze factors that influence consumers' thoughts and actions. As described by Bandura (1986), these factors are divided into three categories– personal, behavioral, and environmental determinants. These determinants are shown in an equal, triadic and reciprocal relationship (Figure 1).

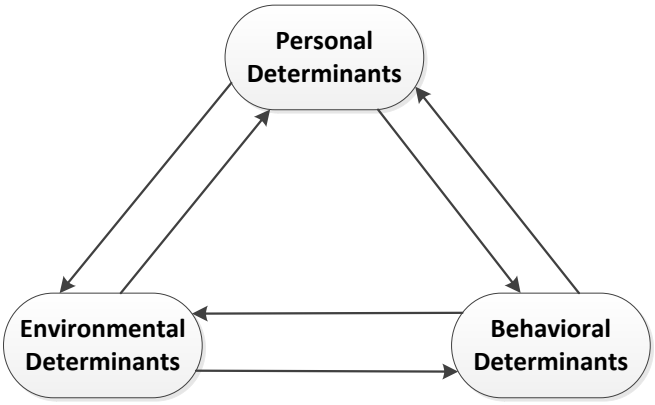


Figure 1. Bandura's Social Cognitive Theory

Personal Determinants

Bandura (1986) defines personal determinants as the way people gain understanding of casual relationships and expand their knowledge by operating symbolically on the wealth of information. All while being derived from personal and vicarious experiences. (Bandura, 2002).

For the purpose of this study, how Millennials perceived influence of advertisements in relation to a willingness to purchase music was considered for personal determinants.

Behavioral Determinants

Behavioral determinants consist of three observational behaviors – motor responses, verbal responses, and social interactions. Human behavior is partly determined by the environment (Bandura, 1989). What people think, believe and feel affects how they behave (Bandura 1986). For this study, describing platform, consumption, and purchasing habits will be considered for behavioral determinants.

Environmental Determinants

Humans are endowed with the capacity to learn from observation, and once learned, individuals can emulate these responses in similar situations (Bandura 2002). For this study, describing the environment and technological platforms in which Millennials consume music will be considered for environmental determinants.

Research Objectives

The purpose of this study was to discover generational differences among consumers of music as well as their purchasing habits. Two research questions and a set of four objectives guided this study:

RQ1: Are there generational differences among consumers of music?

- RO1.1: Describe the music consumption behaviors of individuals, based on hours of music consumption by generation.
- RO1.2: Compare the music consumption behaviors of individuals, based on hours of music consumption by generation.
- RO1.3: Describe the music consumption behaviors of individuals, based on platform of music consumption by generation.
- RO1.4: Compare the music consumption behaviors of individuals, based on platform of music consumption by generation.
- RO1.5: Describe the music consumption behaviors of individuals, based on music listening environment by generation.
- RO1.6: Compare the music consumption behaviors of individuals, based on music listening environment by generation

RQ2: Are there generational differences among consumers' music purchasing habits.

- RO2.1: Describe consumers' music purchasing habits, based on monthly amount spent on music by generation.
- RO2.2: Compare consumers' music purchasing habits, based on monthly amount spent on music by generation.
- RO2.3: Describe the platforms through which consumers purchase music, based on means of obtaining music and generation.
- RO2.4: Compare the platforms through which consumers purchase music, based on means of obtaining music and generation.

- RO2.5: Describe the perceived influence of advertisements on consumers' willingness to pay for music, based on commercial advertisement influence by generation.
- RO2.6: Compare the perceived influence of advertisements on consumers' willingness to pay for music. , based on commercial advertisement influence by generation.

CHAPTER III

QUANTITATIVE DATA COLLECTION METHODS

In this chapter, the quantitative data collection methods, population, sample and specific distribution methods are examined. SCT and social exchange theory are frameworks guiding this study. Therefore, the personal, environmental and behavioral determinants of Millennials' perceptions of new music will be explored. Quantitative data was collected using self-completed questionnaires.

Description of Larger Study

Throughout the entirety of our research, all qualitative data was collected through the design of a larger study developed to test survey methods and social exchange theory. Because people seek and create exchanges to receive benefits, the emotional process affects the outcome of the exchange (Lawler, 2001). This means that during the time of our project's construction, the larger study that was researching survey methods, was underway and therefore had full effect as to how our qualitative data would be collected. Student researchers enrolled in a field research course within the Department of Agricultural Leadership, Education, and Communications (ALEC) at Texas A&M University aided in the collection for this study. There were two phases of qualitative data collection. The first phase was part of a domestic study-away program that lasted 37 days (June 2014- July 2014) and covered the southwestern United States. It was composed of six graduate students, 11 undergraduate students, and one university faculty member, resulting in a team of 18 people. The second phase was conducted in Texas and data was collected during the 2014 fall academic semester. Students who were enrolled in an ALEC

research course during the 2014 fall semester joined the established study-away students in collecting data as a part of a course requirement. This research course was comprised of 18 students. Locations of the data collection include Houston, TX; College Station, TX; and Dallas, TX. Students working on their own research projects (lead researchers) and supervising faculty members remained unchanged throughout both sets of data collection.

Four data collection methods were used in this study: drop-off/pick-up, drop-off/mail-back and mail survey. The same questionnaires were used for each of the qualitative data collecting formats. Figure 2 shows the selected cities we collected data in.

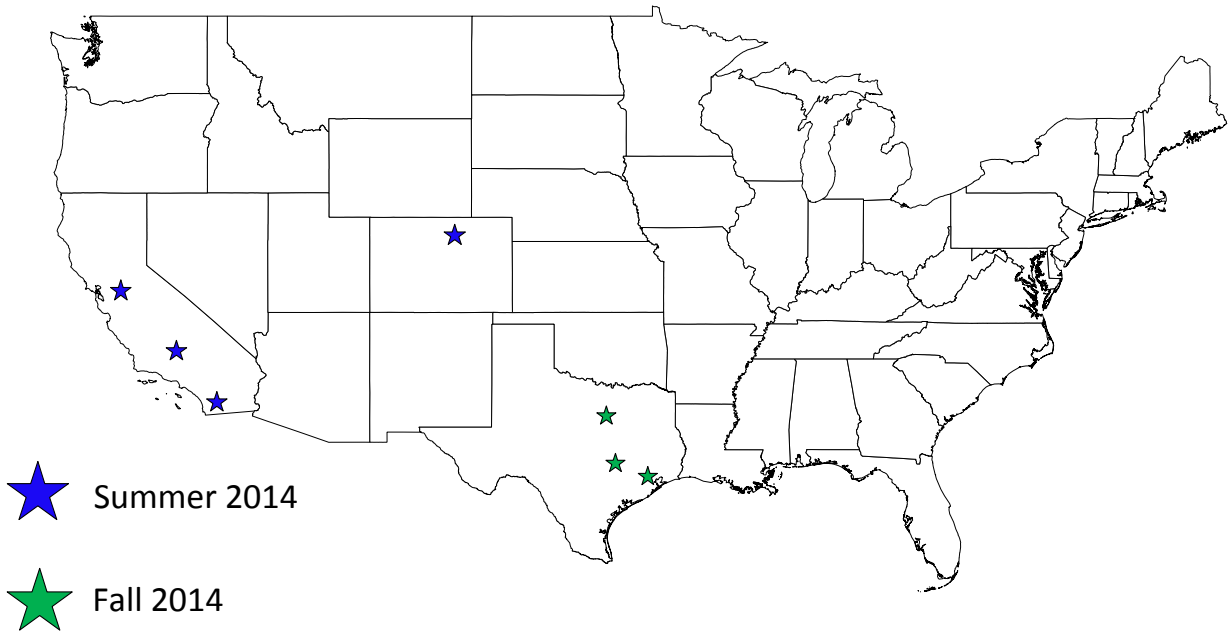


Figure 2. Depicts the cities selected for data collection and the respective semester.

Design

Beginning in the spring 2014 academic semester (January - May), lead researchers met to develop objectives and theoretical frameworks for their varying projects. After continual editing and refining of the survey questions, six individual projects were conceived. Demographics and media consumption related questions remained constant throughout all six surveys, resulting in a two-part, self-completion questionnaire. Nielsen's *U.S. Digital Consumer Report* (2014) was used as a model to develop many of the media consumption and demographic questions asked within the questionnaire (e.g., how many working radios do you have in your home?). The second half of each survey included each specific projects' individual questions:

- Form 1: Perceptions of live music events (Millennials)
- Form 2: Perceptions of Millennials
- Form 3: Public perceptions of animals and use
- Form 4: Perceptions of meat products in grocery store advertisements
- Form 5: Perceptions of agriculture
- Form 6: Perceptions of radio (Radio listening habits of the public)

Constructed on an 8.5" X 7" booklet, each survey remained consistent in cover design, layout and weight to avoid any possible changes in the response rate. The visual design of web or paper questionnaires are key for best understandability and response rate. One of the primary functions of visual design is to help the respondent process the questionnaire and it's components, but it can also make the questionnaire appear more appealing (Dillman et al., 2009).

The content found in form six: Perceptions of radio (radio listening habits of the public) are directly related to this study. A contextual diagram is shown below depicting the individual survey forms in Figure 3.

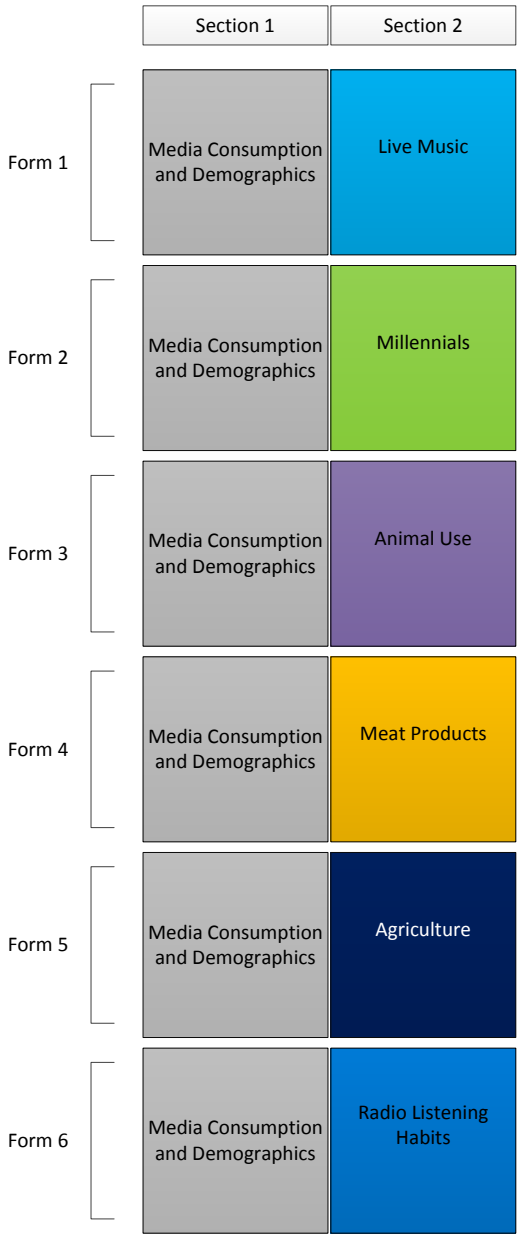


Figure 3. Explains the contents of each version of the questionnaire.

Purpose of the Study

The purpose of this study was to better understand the generational differences among consumers of music as well as their purchasing habits. Millennials were the focus during the study but other generations were observes as well such as the Silent Generation, Baby Boomers and Generation X. As previously noted, the data collected for the purposes of this study were derived from a lager study testing survey distribution methods and Social Exchange Theory. Therefore, the selection subject and sample numbers were chosen by lead faculty members. A filter was placed for the division of data that adhered to the purpose of this study. Our data was analyzed using IBM™ SPSS Statistics version 22.0.

We received 258 questionnaire responses for version six of the surveys. This was prior to the placement of filters used in the data to exclude the respondents belonging to the greatest generation (1901 – 1924) and Generation Z (1995 – present). There were 13 cases of missing data in the sample. While we found zero responses belonging to the greatest generation we must conclude that of the 13 missing samples there may exist the possibility of participants belonging to Generation Z to have filled out the questionnaire. These were not accepted as usable data due to IRB restrictions concerning the use of information from minors. This brought the new total of respondents to 245 for questionnaire, version six.

To create generational groups included in this study, we used the root variable respondent age (D001_RC_E – Generation Coding) to form the variable (D001_RC_F – Truncated Generation; Exclude Greatest Generation and Generation Z). The generational groups categorized in this variable were (1 = Silent Generation; 2 = Baby Boomer; 3 = Generation X; 4 = Millennial).

Subject Characteristics

For a better description of our subject's characteristics, we have created Table 1 to display generational groups categorized by male and female frequencies as well as the percent of respondents included in version six of the questionnaire. We also included the study's overall frequency and percent of generational groups by gender. The greatest percentage of our respondents were women with response rate of 59.8%. At 87 total responses, Baby Boomers made up the largest generational group within our data collection.

Table 1
Generational Groups by Gender [f]

	Male		Female		Total [e]	
Generational Group	*f*	%	*f*	%	*f*	%
Silent Generation [a]	19	41.3	27	58.7	46	18.9
Baby Boomers [b]	37	42.5	50	57.5	87	35.7
Generation X [c]	22	45.8	26	54.2	48	19.7
Millennials [d]	20	31.7	43	68.3	63	25.8
Total [e]	98	40.2	146	59.8	244	100.0

Note. [a] Silent Generation = born between 1925-1945; [b] Baby Boomers = born between 1946-1964; [c] Generation X = born between 1965-1976; [d] Millennials = born between 1977- 1995; [e] Column total, indicating percent of sample; [f] Traditionalists and Generation Z were excluded for this study.

Table 2 displays generational groups by age to more clearly recognize the generational distribution of respondents in version six of the questionnaire. Frequency, percent, mean, standard deviation, minimum age and maximum age within each of the generations are included. Our youngest respondent was 19, meaning they were born in 1995, and our oldest was 89, meaning they were born in 1925.

Table 2
Respondent Age by Generational Group

			Respondent Age[b]			
Scale	Count	Column Total%	Mean	SD	Min.	Max.
Generation[a]						
Silent Generation	46	18.8	75	5	69	89
Baby Boomers	88	35.9	59	6	50	68
Generation X	48	19.6	43	3	38	49
Millennials	63	25.7	28	5	19	37
Total	245	100	51	17	19	89

Note. Generation[a] (D001_RC_F); Respondent Age[b] (D001_RC_E)

CHAPER IV

RESULTS

The purpose of this study was to better understand the generational differences among consumers of music as well as their purchasing habits. Millennials were the focus during the study but other generations were observes as well such as the Silent Generation, Baby Boomers and Generation X. As previously noted, the data collected for the purposes of this study were derived from a lager study testing survey distribution methods and Social Exchange Theory.

Research Question 1

The purpose of Research Question 1 was to discover generational differences among consumers of music. This research question was divided into several objectives; 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6. These objectives were respectively designated for descriptive, (mean, standard deviation, frequency and percent) and comparative analyses (ANOVA, MANOVA, Chi Square and Kruskal-Wallis) for each objective and their respective variables.

Research Question 1: Research Objective 1.1

The purpose of the first research objective was to describe music consumption behaviors of individuals, based on hours of music consumption by generation. A table expresses the percentages and frequencies for the generational groups (D001_RC_F) and hours of music consumption, (V6_Q002) as well as the total frequency and percentage to measure the respondents who completed the question (n = 235). The most commonly chosen listening behavior was ‘Two hours or less’ with a total response of n = 174. Of that listening behavior,

Baby Boomers had the largest frequency measuring 68 respondents or 39.1% of the total. A summary of music consumption behaviors of individuals, based on hours of music consumption and generation is noted in Table 3.

Table 3
Music consumption behaviors of individuals, based on hours of music consumption and generation

	Silent		Baby Boomers		Generation X		Millennials		Total[1]	
Listening behavior	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
Two hours or less	32	18.4	68	39.1	31	17.8	43	24.7	174	73.1
3 to 5 hours	8	18.2	12	27.3	11	25.0	13	29.5	44	18.5
6 to 8 hours	3	18.8	5	31.2	3	18.8	5	31.2	16	6.7
9 to 11 hours	0	0.0	2	50.0	1	25.0	1	25.0	4	1.7
12 or more hours	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total[2]	43	18.1	87	36.6	46	19.3	62	26.1	238	100.0

Note. [1] = Row total (total number of individuals in all generations who listen to music for a specified amount of time);
[2] = Column total (total number of individuals in each generation who listen to music)

Research Question 1: Research Objective 1.2

A Kruskal-Wallis test was conducted to determine if there were differences in hours of music consumption (see Figure 4) between generational groups (see Figure 5): Silent (n = 43), Baby Boomers (n = 87), Generation X (n = 46), Millennials (n = 62) and Total (n = 238). Median hours of music consumption scores were not statistically significantly different between the generational groups, $\chi2(3) = 2.087$, $p = .555$. The whisker plot generated by SPSS, shown in Figure 6, depicts the distribution of samples (V6_Q022 – Hours of music listened to) by (D001_RC_F – Generation).

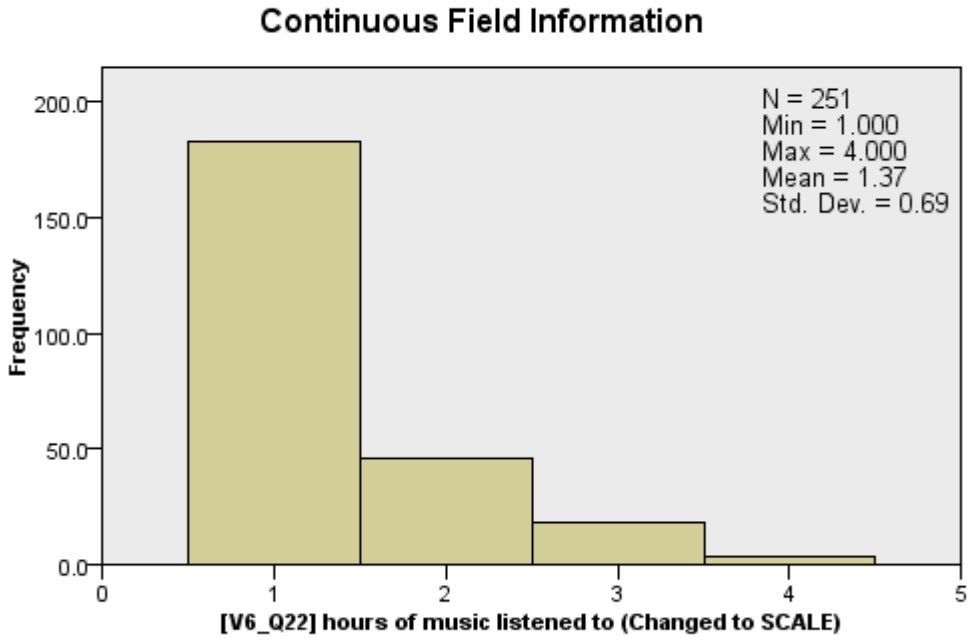


Figure 4. The bar chart included in this figure depicts the overall distribution of individuals' responses included in Research Objective 1.2, by number of hours and individual listens to (V6_Q022).

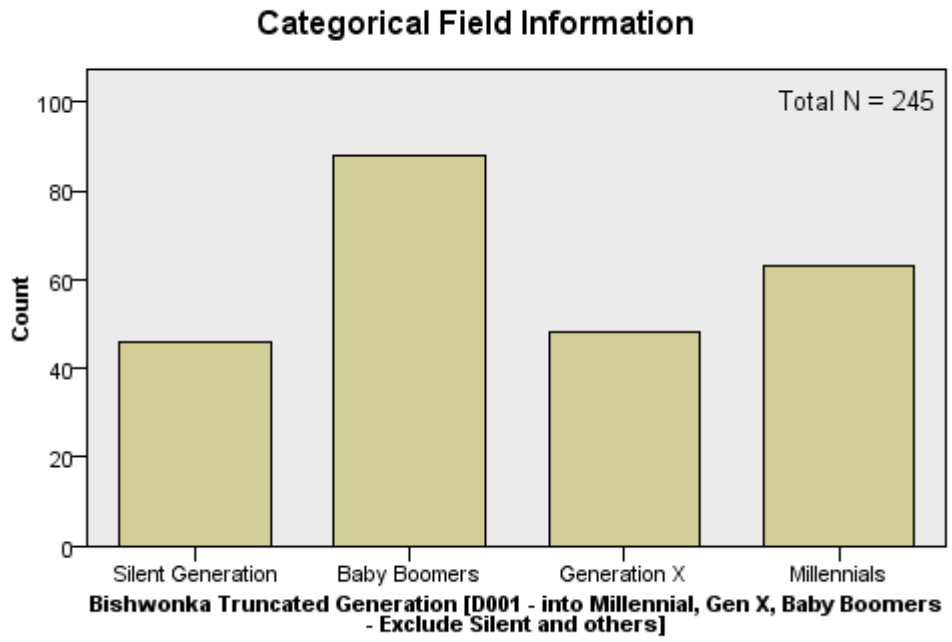
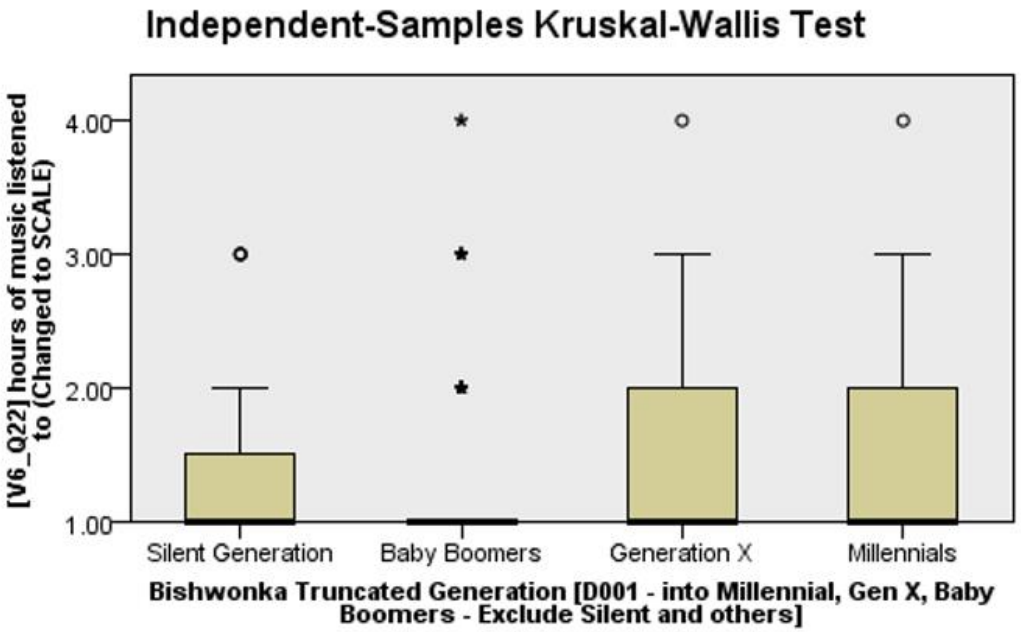


Figure 5. The bar chart included in this figure depicts the overall distribution of individuals' responses included in Research Objective 1.2, by generation (D001_RC_F – Generation).



Total N	238
Test Statistic	2.087
Degrees of Freedom	3
Asymptotic Sig. (2-sided test)	.555

1. The test statistic is adjusted for ties.
2. Multiple comparisons are not performed because the overall test does not show significant differences across samples.

Figure 6. The whisker plot generated by SPSS depicts the distribution of samples (V6_Q022 – Hours of music listened to) by (D001_RC_F – Generation).

Research Question 1: Research Objectives 1.3 and 1.4

A chi-square (χ^2) test of independence was performed to examine the relation between the platform of music consumption (V6_Q005_A through V6_Q005_H) and generation

(D001_RC_F). The relationship between these variables was not significant. The greatest chi-square value was between the music listening environment of a Smart Phone (V6_Q005_H) to generation χ^2 (52.777, n = 191) = 0.000, p < .05 and the least chi-square value was between the music listening environment of an iPad (V6_Q005_D) to generation χ^2 (4.357, n = 191) = 0.225, p < .05. Both the descriptive and comparative analysis results for generation were presented in Table 4. Also included are the frequencies and percent's regarding the respondents choice of 'yes' or 'no' to the use of a particular platform used for the consumption of music. Millennials held the largest generational 'yes' response for using the internet (n = 43), smart phone (n = 47, tablet (n = 8), and MP3 (n = 12) as a platform to consumer music. Baby Boomers held the largest generational 'yes' response for using the car radio (n = 77) and home radio (n = 49). Exactly the same responses between Baby Boomers and Millennials occurred for the use of an iPad as a platform used for the consumption of music, both frequencies having a value of 15, and iPod, both frequencies having a value of 24.

Table 4
Description and comparison of music consumption based on platform of music consumption by generation

	Yes		No			
	f	%	*f*	%	χ^2	*p*
Internet; V6_Q005_A **					25.835	0.000
Silent Generation	6	22.2	21	77.8		
Baby Boomers	38	55.9	30	44.1		
Generation X	29	72.5	11	27.5		
Millennials	43	76.8	13	23.2		
Car Radio; V6_Q005_B **					8.750	0.033
Silent Generation	33	89.2	4	10.8		
Baby Boomers	77	98.7	1	1.3		
Generation X	44	100	0	0.0		
Millennials	54	93.1	4	6.9		
Home Radio; V6_Q005_C **					16.515	0.001
Silent Generation	21	63.6	12	36.4		
Baby Boomers	49	73.1	18	26.9		

Table 4

Description and comparison of music consumption based on platform of music consumption by generation

	Yes		No			
	f	%	*f*	%	χ^2	*p*
Generation X	22	56.4	17	43.6		
Millennials	20	37.0	34	63.0		
iPad; V6_Q005_D					4.357	0.225
Silent Generation	3	10.7	25	89.3		
Baby Boomers	15	24.2	47	75.8		
Generation X	12	31.6	26	68.4		
Millennials	15	28.8	37	71.2		
Tablet; V6_Q005_E					5.810	0.121
Silent Generation	1	3.7	26	96.3		
Baby Boomers	7	11.3	55	88.7		
Generation X	9	23.7	29	76.3		
Millennials	8	15.4	44	84.6		
iPod; V6_Q005_F **					11.401	0.010
Silent Generation	2	7.4	25	92.6		
Baby Boomers	24	37.5	40	62.5		
Generation X	13	34.2	25	65.8		
Millennials	24	44.4	30	55.6		
MP3; V6_Q005_G					6.268	0.099
Silent Generation	2	7.1	26	92.9		
Baby Boomers	7	11.3	55	88.7		
Generation X	3	8.1	34	91.9		
Millennials	12	23.1	40	76.9		
Smart Phone; V6_Q005_H **					52.777	0.000
Silent Generation	1	3.7	26	96.3		
Baby Boomers	27	41.5	38	58.5		
Generation X	29	72.2	11	27.5		
Millennials	47	79.7	12	20.3		

Note. ** Indicates significant results (p = < .05)

Research Question 1: Research Objectives 1.5 and 1.6

A chi-square (χ^2) test of independence was performed to examine the relation between the music listening environment (V6_Q004_A through V6_Q004_C) and generation (D001_RC_F). The relationship between these variables was not significant. The greatest chi-square value was between the music listening environment of Work (V6_Q004_B) to generation χ^2 (12.360, n = 189) = 0. 006, $p < .05$ and the least chi-square value was between the music listening environment of Home (V6_Q004_A) to generation χ^2 (0.443, n = 189) = 0. 931, $p < .05$. Both the descriptive and comparative analysis results for generation were presented in Table 5. Also included are the frequencies and percent's regarding the respondents choice of 'yes' or 'no' to the consumption of music in a particular environment. Baby Boomers had the highest number of responses for using the Home as an environment for music consumption (n = 57) and the car (n = 77). Millennials carried the highest number of responses for using the work as an environment for music consumption (n = 28).

Table 5
Description and comparison of Music consumption behaviors of individuals, based on listening environment and generation

	Yes		No			
	f	%	*f*	%	χ^2	*p*
Home; V6_Q004_A					0.443	0.931
Silent Generation	29	80.6	7	19.4		
Baby Boomers	57	79.2	15	20.8		
Generation X	36	83.7	7	16.3		
Millennials	47	82.5	10	17.5		
Work; V6_Q004_B **					12.360	0.006
Silent Generation	4	13.8	25	86.2		
Baby Boomers	25	37.9	41	62.1		
Generation X	19	48.8	20	51.3		
Millennials	28	50.9	27	49.1		
Car; V6_Q004_C **					7.823	0.050
Silent Generation	32	86.5	5	13.5		
Baby Boomers	77	98.7	1	1.3		
Generation X	41	95.3	2	4.7		
Millennials	56	94.9	3	5.1		

Note. ** Indicates significant results (p = < .05)

Research Question 2

The purpose of Research Question 1 was to discover generational differences among consumers music purchasing habits. This research question was divided into several objectives: 2.1, 2.2, 2.3, 2.4, 2.5, and 2.6. These objectives were respectively designated for descriptive, (mean, standard deviation, frequency and percent) and comparative analyses (ANOVA, MANOVA, Chi Square and Kruskal-Wallis) for its respective variables.

Research Question 2: Research Objectives 2.1

The purpose of the first research objective was to describe consumers' music purchasing habits based on monthly amount spent on music by generation. The percentages and frequencies for the generational groups (D001_RC_F) and monthly amount spent, (V6_Q007) as well as the total

frequency and percentage to measure the respondents who completed the question (n = 124) are noted in Table 6.

Table 6
Music purchasing habits, based on a monthly amount spent on music by generations

	Silent		Baby Boomers		Generation X		Millennials		Total[1]	
Monthly amount spent on music (in dollars)	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
$1 to $5	1	5.9	6	35.3	4	23.5	6	35.3	17	13.7
$6 to $10	2	9.5	8	38.1	6	28.6	5	23.8	21	16.9
$11 to $15	6	20.0	16	53.3	4	13.3	4	13.3	30	24.2
$16 to $20	2	9.1	8	36.4	5	22.7	7	31.8	22	17.7
$21 to $25	2	20.0	1	10.0	3	30.0	4	40.0	10	8.1
$26 to $30	0	0.0	5	41.7	2	16.7	5	41.7	12	9.7
$31 to $35	1	33.3	2	66.7	0	0.0	0	0.0	3	2.4
$36 to $40	0	0.0	2	28.6	2	28.6	3	42.9	7	5.6
Other	1	50.0	1	50.0	0	0.0	0	0.0	72	1.6
Total[2]	15	12.1	49	39.5	26	21.0	34	27.4	124	100.0

Note. [1] = Row total (total number of individuals in all generations who spent the specified amount of money per month to listen to music); [2] = Column total (total number of individuals in each generation who spent the specified amount of money per month to listen to music)

Research Question 2: Research Objective 2.2

A Kruskal-Wallis test was conducted to determine if there were differences in monthly amounts spent on music (see Figure 7) between generational groups (see Figure 8): Silent (n = 15), Baby Boomers (n = 49), Generation X (n = 26), Millennials (n = 34) and Total (n = 124). Median hours of music consumption scores were not statistically significantly different between the generational groups, $\chi 2(3) = 0.717$, p = .869.

The whisker plot generated by SPSS, shown in Figure 8 depicts the distribution of samples (V6_Q027 – Amount spent on music) by (D001_RC_F – Generation).

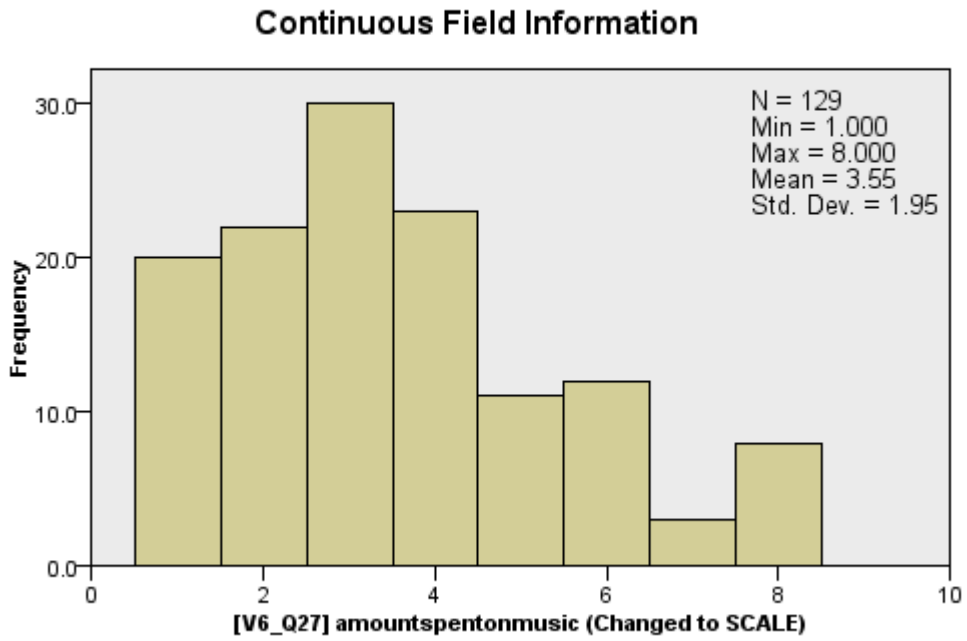


Figure 7. The bar chart included in this figure depicts the overall distribution of individuals' responses included in Research Objective 1.2, by number of hours and individual listens to (V6_Q022).

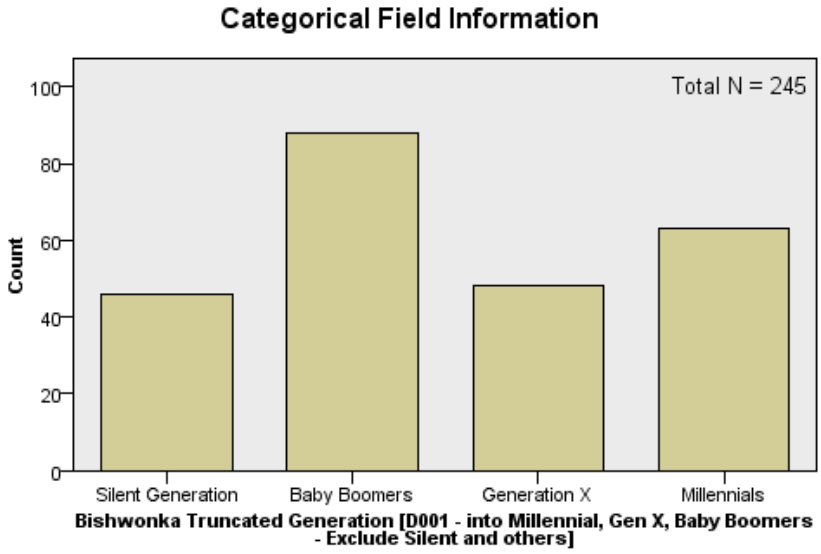
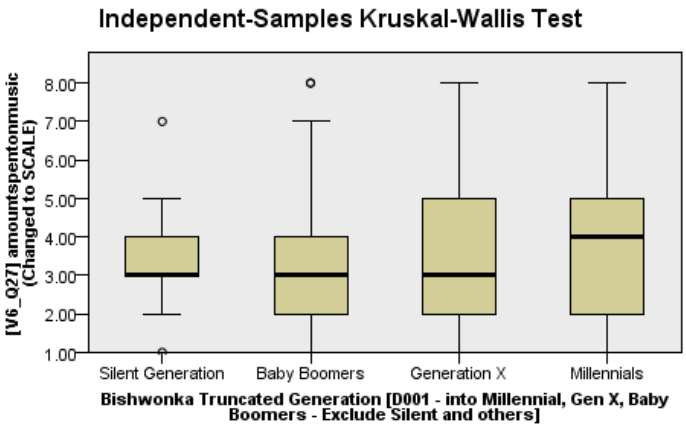


Figure 8. The bar chart included in this figure depicts the overall distribution of individuals' responses included in Research Objective 1.2, by generation (D001_RC_F – Generation).



Total N	122
Test Statistic	.717
Degrees of Freedom	3
Asymptotic Sig. (2-sided test)	.869

1. The test statistic is adjusted for ties.
2. Multiple comparisons are not performed because the overall test does not show significant differences across samples.

Figure 9. The whisker plot generated by SPSS depicts the distribution of samples (V6_Q022 – Hours of music listened to) by (D001_RC_F – Generation).

Research Question 2: Research Objective 2.3

The purpose of the third research objective was to describe the platforms through which consumers purchase music, based on mean of obtaining music (V6_Q008_A through V6_Q008_D) and generation (D001_RC_F). The means and standard deviation for the platforms through which consumers purchase music, based on mean of obtaining music (V6_Q008_A through V6_Q008_D) and generation (D001_RC_F) are noted in Table 7.

Table 7
Means of obtaining music by generation

	Silent (*n* = 46)		Baby Boomers (*n* = 88)		Generation X (*n* = 48)		Millennials (*n* =63)		Grand Mean[1] (*n* = 245)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Listen to free music V6_Q008_A	4.0	1.4	4.5	1.1	4.4	1.2	4.3	1.2	4.3	1.2
Downloads free music V6_Q008_B	1.4	1.1	2.1	1.5	2.6	1.7	3.1	1.7	2.4	1.6
Pay for downloaded music V6_Q008_C	1.5	1.2	2.5	1.7	2.5	1.7	2.5	1.5	2.3	1.6
Pay a monthly subscription V6_Q008_D	1.6	1.4	1.7	1.5	2.0	1.7	1.7	1.4	1.7	1.5

Note. Scale: 1 = Not Likely to 5 = Very Likely. [1] = Grand Mean of individuals in all generations

Research Question 2: Research Objective 2.4

The purpose of the fourth research objective was to compare the platforms through which consumers purchase music, based on mean of obtaining music (V6_Q008_A through V6_Q008_D) and generation (D001_RC_F). Multivariate analysis of variance (MANOVA) was used to compare the mean scores of dependent variables V6_008_A; downloads free music, V6_008_B; pays for downloaded music, V6_008_C; pays a monthly subscription for music, V6_008_D across conditions and test interactions among dependent variables generation (D001_RC_F; 1 = Silent Generation, 2 = Baby Boomers, 3 = Generation X, 4 = Millennials).

Box's test of equality of covariance was not significant (p = .194), which was an indicator that the assumption of equality of covariance was not violated (Field, 2009). MANOVA results were interpreted using the Wilk's lambda (Λ) statistic and indicated the effect of generation (D001_RC_F) on means of obtaining music (listens to free music, V6_Q008_A; downloads free music, V6_Q008_B; pays for downloaded music, V6_Q008_C; pays a monthly subscription for

music, V6_Q008_D) was significant, $\Lambda = .817$; $F(12, 542.67) = 3.599$; $p < .001$; $1 - \beta = .998$) with a small effect size ($\eta_p^2 = .065$; Newton & Rudestam, 1999). MANOVA results exceeded the threshold for power of analysis ($\geq .80$); therefore, significant results were not due to chance or error.

Subsequent univariate Analyses of Variance (ANOVAs) were carried out on each of the dependent variables (see Table 8). A Bonferroni correction was applied to each of the subsequent ANOVAs to protect against inflated Type I error (Field, 2009). A true Bonferroni correction can be calculated to adjust the alpha level to adjust for multiple comparisons and to account for Type I Error using the first equation below (Tabachnick & Fidell, 2013). However, Tabachnick and Fidell (2013) also noted that an alternate equation can be used as a "close approximation if all α_i are to be the same is where α_{fw} is the family wise error rate and p is the number of tests" (p. 272). The four comparisons for this objective yielded a Bonferroni correction value of ($p < .01$), as shown in equation (1).

$$\alpha = 1 - (1 - \alpha_1)(1 - \alpha_2)\ldots(1 - \alpha_p)$$

$$\alpha_i = \alpha_{fw}/p \qquad (1)$$

ANOVA results indicated significant interactions between subjects in Listens to free music (V6_Q008_A; $p = 0.197$, $\eta^2 = 0.020$, $1 - \beta = 0.411$), V6_008_B; $p = 0.000$, $\eta^2 = 0.116$, $1 - \beta = 0.997$), V6_008_C; $p = 0.007$, $\eta^2 = 0.054$, $1 - \beta = 0.850$), and V6_Q008_D; $p = 0.495$, $\eta^2 = 0.010$, $1 - \beta = 0.221$) for the effects of generation on means of obtaining music.

Statistical significance was found between generations (D001_RC_F; 1 = Silent Generation, 2 = Baby Boomers, 3 = Generation X, 4 = Millennials) and Downloads free music (V6_Q008_B). Statistical significance was also found between generations (D001_RC_F) and Pays for downloaded music (V6_Q008_C).

Table 8
ANOVA –Comparative results for RO 2.4

Scale	*df*	*SS*	*MS*	*F*	*p*	η^2	1 - β
Listens to free music (V6_Q008_A)							
Between	3	6.959	2.320	1.573	0.197	0.020	0.411
Error	223	328.918	1.475				
Downloads free music (V6_Q008_B)**							
Between	3	67.203	22.401	9.364	0.000	0.116	0.997
Error	213	509.562	2.392				
Pays for downloaded music (V6_Q008_C)**							
Between	3	31.123	10.374	4.176	0.007	0.054	0.850
Error	217	539.049	2.484				
Pays a monthly subscription for music (V6_Q008_D)							
Between	3	5.377	1.792	0.799	0.495	0.010	0.221
Error	216	484.369	2.242				

Note. ** Indicates significant results (p = < .01)

Research Question 2: Research Objective 2.5

The purpose of research objective 2.5 was to describe the perceived influence of advertisements on consumers' willingness to pay for music, based on commercial advertisement influence (V6_Q009) by generation (D001_RC_F). Frequencies and percentages for the perceived influence of advertisements on consumers' willingness to pay for music, based on commercial advertisement influence (V6_Q009) by generation (D001_RC_F) are noted in Table 9.

Table 9
Commercial advertisement influence by generation

	1		2		3		4		5		Total[1]	
Generation	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
Silent	33	73.3	4	8.9	1	2.2	2	4.4	5	11.1	45	100.0
Baby Boomers	52	59.1	16	18.2	10	11.4	2	2.3	8	9.1	88	100.0
Generation X	30	65.2	7	15.2	1	2.2	4	8.7	4	8.7	46	100.0
Millennials	35	58.3	8	13.3	7	11.7	3	5.0	7	11.7	60	100.0

Note. [1] = Row total (total number of individuals in all generations who listen to music for a specified amount of time); Scale: 1 = None to 5 = A lot.

Research Question 2: Research Objective 2.6

The purpose of research objective 2.6 was to compare the perceived influence of advertisements on consumers' willingness to pay for music, based on commercial advertisement influence by generation. An ANOVA was used to compare the perceived influence of advertisements on consumers' willingness to pay for music, based on commercial advertisement influence (V6_Q009) by generation (D001_RC_F). The ANOVA results indicated significant interactions between subjects in Commercial advertisement influence V6_Q009; $p = 0.769$, $\eta^2 = 0.005$, $1 - \beta = 0.124$) for the effects of generation on means of obtaining music.

CHAPTER V

CONCLUSIONS

Summary of the Study

The primary purpose of this quantitative study was to discover the consuming and purchasing habits amongst generations in comparison to Millennials.

RQ1: Are there generational differences among consumers of music?

The most commonly chosen listening behavior was 'Two hours or less' with a total response of *n* = 174. Of that listening behavior, Baby Boomers had the largest frequency measuring 68 respondents. Millennials followed second with 43. The two hours of less category received 73.1% 'yes' responses. Unsurprisingly, the silent generation had the largest response 'no' (77.8%) when asked if they used the Internet as a platform to consume music. This ties back to the original notion that digital immigrants often have a much more difficult time adapting to the newest digital language. Millennials scored the largest 'yes' response to using the Internet with 76.8%. It was, however, surprising to note that Baby Boomers and Millennials shared common platforms by frequency in both iPad and iPod. This may lead future researchers to better understand the way generations regard brand loyalty or technological advances in media consumption.

RQ2: Are there generational differences among consumers' music purchasing habits?

Baby Boomers held the largest frequency (*n* = 16) of music purchase between $11 and $15 per month. More than one-half (59.1%) of Baby Boomers and (58.3%) Millennials indicated

commercial advertisements do not influence their willingness to pay for music. Much smaller percentages among all the generations concluded that advertisements had little influence in purchasing music.

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APPENDIX A

Data Collection Methods for Larger Study

To prepare for survey distribution in each location, a group effort was needed to coordinate packaging. All student researchers met in a central location to sort the questionnaires in a continuous numeric order beginning with version one and ending with version six. The survey booklets were then placed in bins and packaged according to their specific location and corresponding distribution format used. Displayed on the back of every questionnaire included three blank boxes for the Julian Date of the day delivered (day of the year 001 to 365), zip code, and sample number. This allowed us to have a constant view of when and where the questionnaire was delivered. The contents for each package included a cover letter, an informational sheet, and the questionnaire. The cover letter gave a brief description of the questionnaire and, depending on the method, how or when we would retrieve the survey once it was completed. Each cover letter was hand signed by all lead researchers. The informational sheet was a trifold that gave an in-detail description of the study and how the data would be used. All materials were placed inside a transparent plastic bag with handles to be hung on the doorknobs of each house visited.

Population and Sample of Larger Study

The aim of the larger study was focused to test questionnaire distribution methods, therefore multiple formats were used and subsequently adjusted to increase the overall efficiency after each distribution location. A multi-stage, stratified random sampling method describes the overall trend of our distribution. The eight locations selected, Denver, CO; San Diego, CA; San

Francisco, CA; Berkeley, CA; Fresno, CA; Houston, TX; Dallas, TX; and College Station, TX were chosen because of their large urban and suburban populations and relatively small rural populations. Due to the diversity of populations found within these locations, it allowed us to use a stratified sampling method. A sample size of n = 2,100 per zip codes visited was used for drop-off/pick-up and drop-off/mail-back methods for all of the data collected in summer 2014. A sample size of n = 900 per zip code visited was used for variable drop-off/pick-up, drop-off/mail-back, and mail surveys during fall 2014 data collection.

The MELISSA generator is a database system that was used for selecting zip codes and street names for our geographical coding. During the preliminary steps of collection locations, project leaders would randomly select zip codes and streets within each area. Starting at the top of the randomized list, each street was visually viewed using the street view of Google Maps. This was to ensure safety for the researchers as well as view whether or not the street was residential or commercial. Other factors such as whether or not the street contained mostly multifamily dwellings came into account when choosing streets. If any issue or uncertainty concerning the street was detected the second street, randomly selected, was then used.

Unanticipated problems arose as the research began in various locations. The solution was found in relocating to nearby areas or streets for safety reasons and better response rates. Issues included vacant or unoccupied homes, gated communities, or unsafe surroundings that were previously unknown.

As previously stated, there were four methods used in collecting the qualitative data for this study. Those include, drop-off/pick-up, variable drop-off/pick-up, drop-off/mail-back and mail survey. While collecting data for each method, student researchers wore a university ID which included a picture, their name and university identification number.

Drop-off/mail-back: Denver, CO

Using DOMB, student researchers went door to door and asked the respondent if they would be willing to complete the given questionnaire. Teams consisting of four to five people were divided among the randomly selected streets. Responsibilities were divided among members in each group. The lead researchers were responsible for keeping track of house numbers and noting if they accepted the questionnaire or not. Student researchers were in charge of making contact and distributing the survey and one individual was selected to take photos of each street. All members of each research team were required to record observations in their personal Black ‘n Red notebooks. A general script was kept consistent throughout the entirety of data collection and only changed pertaining to date and location. Student researchers did as followed:

- Introduce yourself and make connection with Texas A&M University.
- Indicate they are not selling or soliciting anything.
- Give the questionnaire to the resident.
- Instruct the respondent to return the survey in the business reply envelope.
- Thank potential respondent for their time.

If the respondent agreed to participate, they were given a prepaid envelope providing them with a one week time window to mail back the questionnaire. If the respondent chose not to participate,

the student researcher did not leave a questionnaire. However, if no contact was made with a resident, we would leave a questionnaire, cover letter, brochure and prepaid envelope inside of a clear plastic bag on their doorknob. The group of student researchers were given 700 questionnaires total to distribute while in Denver, CO and each team went door to door until all questionnaires were distributed.

Limitations with this method included the scenario when no one answered the door and the researchers had to leave the questionnaire on or by the front door. This limitation did not allow for social exchange theory to occur due to the lack of face-to-face interaction.

Drop-off/pick-up: San Francisco, Berkeley, and Fresno, CA.

The DOPU method was used in San Francisco, CA, and Fresno, CA. This method consisted of student researchers approaching a residence and communicating with whomever answered the door. If contact was made, the researchers would ask the respondent to participate by filling out their questionnaire and informed them that they would be returning in three days to collect the questionnaire. The researchers also assured the respondent that they would not disturb them again by knocking on the door or ringing the doorbell as long as the questionnaire was placed in the clear plastic bag and placed on or by the front door of their home by the time the researcher returned. This created a less intrusive and convenient process for the resident.

However, if the questionnaire was not by the resident's front door at the time of collection, the researcher would knock on the door and ask if the questionnaire had been completed. If the resident did not answer the door, the researcher placed another questionnaire, brochure and cover

letter in a clear plastic bag and hung it on their front door. As with the previous method of DOMB, each team recorded personal observations in their Black ‘n Red notebooks that were shared among the team and then later with the other students in the class. A simple script was again provided to the researchers for clarity towards future respondents.

After the drop-off process concluded, the student researchers totaled up the number of homes visited, how many times contact was made and total of accepted questionnaires. Student researchers also recorded each house visited with their street name and address to ensure that we only revisited the homes that agreed to take the survey after the three days had passed. As the questionnaires were gathered, team members confirmed that the zip codes, Julian Dates and sample numbers matched their records.

Limitations to this method include residents who had lost or forgotten about the survey within the three days. Other issues encountered were respondents who did not hang the questionnaire on their door and were not home during the time of retrieval. Some residents also claimed to have never received a questionnaire. Because of this, the researchers agreed to only leave questionnaires at the homes where there was face-to-face communication with a resident of that home and that resident agreed to complete the questionnaire by the return date and time. If no contact was made, the student researchers would not leave a survey.

Drop-off/pick-up: San Diego, CA

A few changes were made during this phase of data collection. We continued to ensure randomization when packaging surveys. More specifically, we wrote the zip code of each

residence and the Julian Dates in which we visited each residence on the back of every questionnaire. However, our methods were modified for a more efficient use of our resources. To cut down on assembly time, the surveys, brochures and cover letters were kept separate instead of being packaged in the clear plastic bags. Also, the distribution teams sent to each zip code remained the same as before. During distribution, a contact-only method was utilized. In another words, members of the distribution team would only pass out the questionnaire if the resident agreed to complete the questionnaire. The cover letters and brochures were only given to the resident if they asked for more information.

Additionally, the pickup time frame was adjusted during the San Diego data collection. We returned to pick up the questionnaire a few hours after drop-off, versus returning three days later. We only left a questionnaire with a resident when we made contact with him or her and they agreed to participate. Because of this, we were able to inform the resident that we would be back in a certain amount of hours to pick up the questionnaire. The time frame was changed because we believed that the three-day period was allowing people to forget to complete the questionnaire.

Distribution time in San Diego, CA was from 8 a.m. to noon. We began returning to the homes who agreed to participate at 1 p.m., and picked up questionnaires until 5 pm. Instead of taking notes in the Red ‘n Black notebooks, group leaders were given a premade form to fill out as questionnaires were dropped off. The form allowed the researcher to record the house number, if contact was made or not, and if the resident agreed or did not agree to participate. Visual observations about each street were recorded on the back of the form. This made retrieving the

questionnaires smoother, as the group leader would read off the house numbers that agreed to participate and selected student researchers, "runners", would go grab the questionnaire. If the questionnaire was on the door, the lead researcher recorded that the questionnaire was complete and collected. If the questionnaire was not on the door, the researcher would knock on the door and ask for the questionnaire. If the questionnaire was picked up after secondary contact, the team leader recorded the questionnaire as completed and collected. However, if there was not a questionnaire on the door and there was no answer, the team leader recorded that there was no secondary contact and the questionnaire was not collected.

Once the drop-off portion of the method was complete, the team leaders totaled up the number of homes visited, the number of residents we made contact with, the number of residents we did not make contact with, the total number of accepted questionnaires, and the total number of contacted residents who did not accept a questionnaire. Once the pick-up portion of the method was complete, team leaders recorded the number of completed questionnaires, the number of incomplete questionnaires, and the reason as to why they were not completed (e.g. no secondary contact).

There were a couple of advantages that resulted from making changes to the drop-off/pick-up method. Since we only left questionnaires with residents that agreed to participate, the amount of questionnaires we handed out was reduced. However, the number of questionnaires returned was the same and we had a much higher response rate this way. The changes we made also drastically reduced the amount of time it took to get the questionnaires out.

Drop-off/pick-up, drop-off/mail back/United States Postal Service: College Station, TX; Houston, TX; and Dallas, TX

After returning from the domestic study away program, the researchers did not have enough data. Therefore, the researchers decided to continue data collection in Texas. The project leaders discussed the methods used over the summer and decided to make some changes. The method for selecting zip codes and streets remained the same by using the MELISSA generator to select zip codes and streets. Within each zip code, three areas were selected and highlighted for data collection. Within these three areas, the streets to be visited were highlighted in a different color. How each lead researcher would prepare the map is shown below in Figure 4.

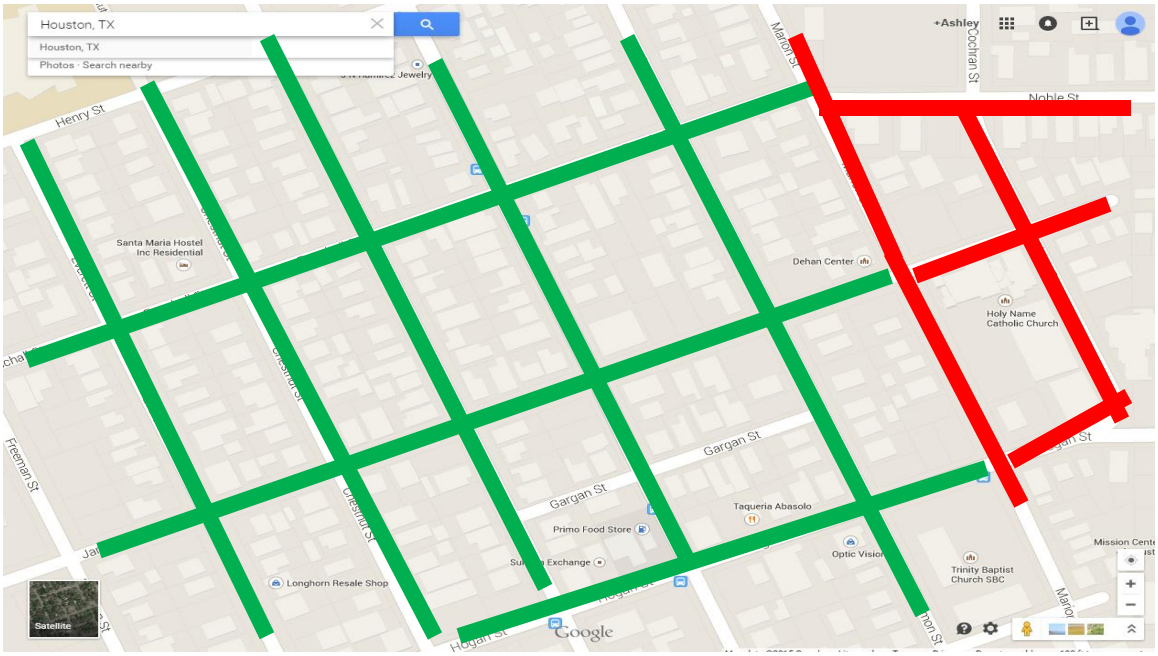


Figure 4. gives an example show how streets were highlighted for each method. This was used generated through Google Maps.

The researchers chose to add two forms of distribution for data collection in Texas. This resulted in a total of three methods used: the DOPU and DOMB that were used previously, and the added method was a mail out method (USPS).

The DOMB method was very similar to the DOPU method. Initial contact still had to be made to leave a questionnaire and the resident still had to agree to take the questionnaire. If the resident agreed to participate, they were given a prepaid business reply envelope, the questionnaire and a cover letter. We asked that the resident return the completed questionnaire to us via USPS mail instead of us returning in a few hours to pick up the questionnaire. The questionnaires used for DOMB were marked on the back with a green highlighter, giving us the ability to differentiate between methods.

The USPS method was different from both the DOPU and DOMB. Face-to-face communication was not utilized in this method, leaving no chance for social exchange theory to occur. Houses that were randomly selected for USPS were marked in their area with a pink highlighter so that researchers using the DOPU and DOMB methods would know to not visit those homes. During data collection in Houston, College Station and Dallas, researchers drove down the streets marked for USPS and wrote down their addresses. Approximately 150-200 addresses were recorded per zip code to increase randomization of houses selected to receive the questionnaire for the USPS method.

The week following DOPU and DOMB, group leaders randomly selected 100 addresses per zip code. Labels were printed and used to address envelopes with the addresses selected. In each

envelope there was a hand-signed cover letter by each of the group leaders, a prepaid business return envelope, and a questionnaire. Questionnaires were marked on the back so we could differentiate between methods. The envelopes were sent out in the mail no later than Thursday of the following week so that it would arrive on the same day of the week the questionnaires were distributed for the DOPU and DOMB methods.

Questionnaires were distributed on Saturdays from 9 a.m. to 1 p.m. and were picked up that same day from 2 p.m. to 5 p.m. The same pick up method from San Diego was utilized in Texas. After dropping off the questionnaires, the team leaders totaled up the houses visited, the number of residents who we made contact with did not make contact with, and the total number of accepted and not accepted questionnaires. Once the researchers had revisited the homes in which the resident accepted a questionnaire, the team leader totaled up the number of completed questionnaires and the total number of questionnaires that weren't collected.

Six research teams were created for data collection in Texas and those teams remained the same for each of the three cities visited. Each group was assigned a certain method. There were two groups per zip code, one for DOPU and one for DOMB. A set of different researchers were designated to record house numbers for USPS.

Tables 1 and 2 includes a summary of the total response rates for the various forms of the questionnaires distributed. The formulas used to calculate the response rates are noted immediately after each table.

Table 1.

Results of Fall 2014 Experimental Data Collection

Method	Contact	Connection *f* (%)	Commitment *f* (%)	Completion *f* (%)
DOPU	1,478	557 (37.7)	412 (73.9)	290 (70.3)
DOMB	1,410	544 (38.6)	464 (85.2)	98 (21.1)
MAIL ONLY	900	--	--	99 (11.0)

Note. Experiment conducted in three Texas cities: College Station, Houston, and Dallas. Dashes indicate data not obtained. DOPU = Drop Off Pick Up, DOMB = Drop Off Mail Back

$$\text{Connection Rate} = \frac{\textit{Number of Connections}}{\textit{Number of Contacts}} \text{ X } 100$$

$$\text{Commitment Rate} = \frac{\textit{Number of Commitments}}{\textit{Number of Connections}} \text{ X } 100$$

$$\text{Completion Rate} = \frac{\textit{Number of Completions}}{\textit{Number of Commitments/Connections}} \text{ X } 100$$

Table 2.

Results of Summer 2014 Exploratory Data Collection

Location	Method	Time	Contact	Connection	Commitment	Completion
San Francisco	DOPU	48hrs	3,233	492	278	237
Fresno	DOPU	3hrs	1,597	464	328	122
San Diego	DOPU	3hrs	2,447	798	520	329
Denver	DOMB	-	2,015	-	-	180

$$\text{Connection Rate} = \frac{\textit{Number of Connections}}{\textit{Number of Contacts}} \text{ X } 100$$

$$\text{Commitment Rate} = \frac{\textit{Number of Commitments}}{\textit{Number of Connections}} \text{ X } 100$$

$$\text{Completion Rate} = \frac{\textit{Number of Completions}}{\textit{Number of Commitments/Connections}} \text{ X } 100$$

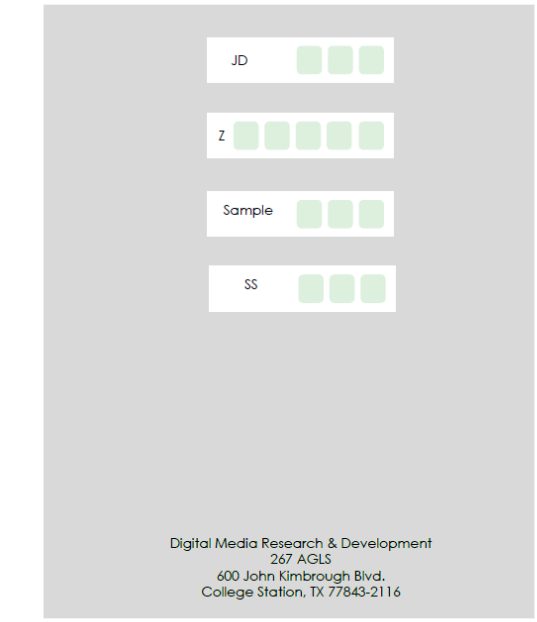
Validity

Prior to distributing questionnaires, face validity and content validity was met for the data collection instruments used in this study. Validity is defined as "whether an indicator (or set of indicators) that is devised to gauge a concept really measures that concept" (Bryman, 2012). Face validity was met by having more than 60 persons from the public review the questionnaire. Each person was asked to note any grammatical or punctuation error, confusing instruction, questions, responses, and/or layout that were not clear or confusing. Content validity was reached by drawing survey questions from the literature and widely used industry questions, i.e., Nielsen's household media survey.

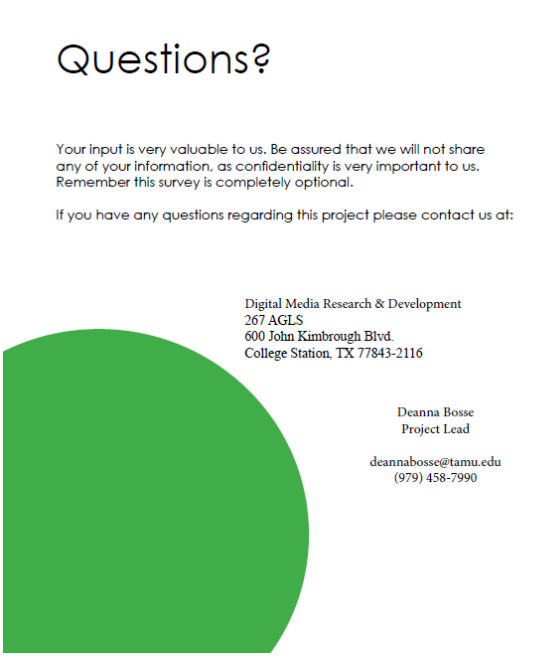
Reliability

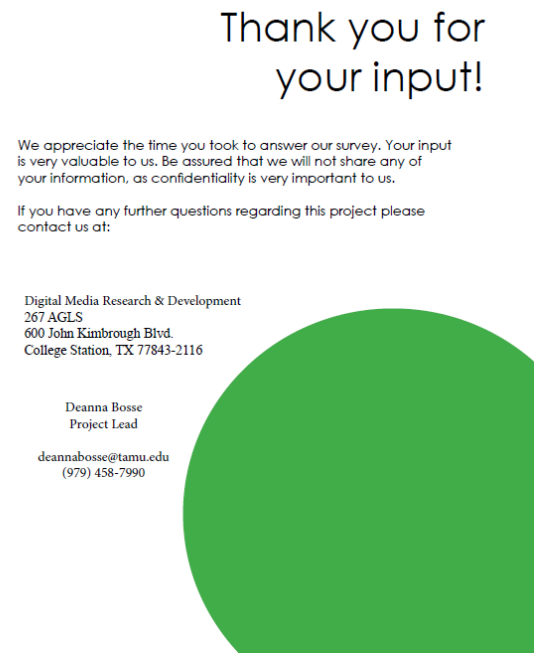
Reliability "refers to the consistency of the measure of a concept" (Bryman, 2012, p. 169). It is defined as "the extent to which measurements are repeatable – when different persons perform the measurements, on different occasions, with supposedly alternative instruments which measure the same thing" (Drost, 2011, p. 106). There are three key concerns with reliability that need to be addressed: equivalence, internal consistency and stability over time. For this study we estimated reliability by conducting a pilot test in College Station, TX before using the questionnaires for data collection. Because the items in the questionnaire were not considered summatable, we determined the test-retest method was an appropriate way to calculate a coefficient of stability. A test-retest of the questionnaire was conducted three weeks prior to distribution.

APPENDIX B


JD
Z
Sample
SS
Digital Media Research & Development
267 AGLS
600 John Kimbrough Blvd.
College Station, TX 77843-2116


Consumer Engagement Survey
Let your voice be heard!
TEXAS A&M UNIVERSITY


Questions?
Your input is very valuable to us. Be assured that we will not share any of your information, as confidentiality is very important to us. Remember this survey is completely optional.
If you have any questions regarding this project please contact us at:
Digital Media Research & Development
267 AGLS
600 John Kimbrough Blvd.
College Station, TX 77843-2116
Deanna Bosse
Project Lead
deannabosse@tamu.edu
(979) 458-7990


Thank you for your input!
We appreciate the time you took to answer our survey. Your input is very valuable to us. Be assured that we will not share any of your information, as confidentiality is very important to us.
If you have any further questions regarding this project please contact us at:
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APPENDIX C

DOPU Researcher Script

Hi, my name is *(insert name)*, and I am a student at Texas A&M University. Your neighborhood has been randomly selected to receive our consumer engagement survey. This survey is completely optional, but your participation will help graduate and undergraduate research projects.

(hand the resident the packet)

In this packet there is a survey, a brochure explaining more about the project, and a letter that tells you who you can contact if you have any questions.

Option 1: We will be back by on *(specific date and time)* to pick you survey up. If you will please complete it and place it back in the plastic bag and hang it on your door, we will pick it up. Do you feel this is something you will be able to complete for us?

If yes: *(hand the resident the packet)*

If no: *(thank resident for their time and leave)*

Option 2: This is very easy to participate. All you have to do is fill out the survey and place it in the pre-paid envelope in your bag and drop it in any USPS location or in your mailbox. Do you feel this is something you will be able to complete for us?

If yes: *(hand the resident the packet)*

If no: *(thank resident for their time and leave)*

If researcher is uncomfortable and/or has questions they do not know the answer to, the lead researcher (group leader) should be consulted with.

APPENDIX D

QUANTITATIVE DATA CODING SHEET
DANIELLE BISHOP – MILLENNIALS AND MUSIC

Variable	Description (Label)	Type	Coding	Item
V6_Q001	Do you listen to music?	Nominal	1 = Yes; 2 = No	V6_Q001
V6_Q002	On a typical day, how many hours of music do you listen to?	Ordinal	1 = Two hours or less; 2 = 3 – 5 hours; 3 = 6 - 8 hours; 4 = 9 -11 hours; 5 = More than 12 hours	V6_Q002
V6_Q003	Typically, how do you listen to music? (Please select either "yes" or "no" for each item).	Nominal	1 = Yes; 2 = No	V6_Q003
V6_Q003_A	Typically, how do you listen to music? (Please select either "yes" or "no" for each item). Spotify **[V6_Q23_A]**	Nominal	1 = Yes; 2 = No	V6_Q003_1
V6_Q003_B	Typically, how do you listen to music? (Please select either "yes" or "no" for each item). Pandora **[V6_Q23_B]**	Nominal	1 = Yes; 2 = No	V6_Q003_2
V6_Q003_C	Typically, how do you listen to music? (Please select either "yes" or "no" for each item). iTunes **[V6_Q23_C]**	Nominal	1 = Yes; 2 = No	V6_Q003_3
V6_Q003_D	Typically, how do you listen to music? (Please select either "yes" or "no" for each item). YouTube **[V6_Q23_D]**	Nominal	1 = Yes; 2 = No	V6_Q003_4
V6_Q003_E	Typically, how do you listen to music? (Please select either "yes" or "no" for each item). Satellite Radio (XM / Sirius) **[V6_Q23_E]**	Nominal	1 = Yes; 2 = No	V6_Q003_5
V6_Q003_F	Typically, how do you listen to music? (Please select either "yes" or "no" for each item). Free Radio (AM / FM) **[V6_Q23_F]**	Nominal	1 = Yes; 2 = No	V6_Q003_6
V6_Q003_G	Typically, how do you listen to music? (Please select either "yes" or "no" for each item). Online Streaming Radio **[V6_Q23_G]**	Nominal	1 = Yes; 2 = No	V6_Q003_7
V6_Q003_H	Typically, how do you listen to music? (Please select either "yes" or "no" for each item). Other **[V6_Q23_H]**	Nominal	1 = Yes; 2 = No	V6_Q003_8

APPENDIX D (continued)

V6_Q003_H_TEXT	Typically, how do you listen to music? (Please select either "yes" or "no" for each item). Other **[V6_Q23_I]**	String		V6_Q003_9
V6_Q004	Where do you, typically, listen to music? (Please select either "yes" or "no" for each item).	Nominal	1 = Yes; 2 = No	V6_Q004
V6_Q004_A	Where do you typically, listen to music? (Please select either "yes" or "no" for each item). Home **[V6_Q24_A]**	Nominal	1 = Yes; 2 = No	V6_Q004_1
V6_Q004_B	Where do you typically, listen to music? (Please select either "yes" or "no" for each item). Work **[V6_Q24_B]**	Nominal	1 = Yes; 2 = No	V6_Q004_2
V6_Q004_C	Where do you typically, listen to music? (Please select either "yes" or "no" for each item). Car **[V6_Q24_C]**	Nominal	1 = Yes; 2 = No	V6_Q004_3
V6_Q004_D	Where do you typically, listen to music? (Please select either "yes" or "no" for each item). Other **[V6_Q24_D]**	Nominal	1 = Yes; 2 = No	V6_Q004_4
V6_Q004_D_TEXT	Where do you typically, listen to music? (Please select either "yes" or "no" for each item). Other **[V6_Q24_E]**	String		V6_Q004_4_TEXT
V6_Q005	What devices do you use to listen to music? (Please select either "yes" or "no" for each item).	Nominal	1 = Yes; 2 = No	V6_Q005
V6_Q005_A	What devices do you use to listen to music? (Please select either "yes" or "no" for each item). Internet **[V6_Q25_A]**	Nominal	1 = Yes; 2 = No	V6_Q005_1
V6_Q005_B	What devices do you use to listen to music? (Please select either "yes" or "no" for each item). Car Radio **[V6_Q25_B]**	Nominal	1 = Yes; 2 = No	V6_Q005_2

APPENDIX D (continued)

QUANTITATIVE DATA CODING SHEET
DANIELLE BISHOP – MILLENNIALS AND MUSIC

V6_Q005_C	What devices do you use to listen to music? (Please select either "yes" or "no" for each item). Home Radio **[V6_Q25_C]**	Nominal	1 = Yes; 2 = No	V6_Q005_3
V6_Q005_D	What devices do you use to listen to music? (Please select either "yes" or "no" for each item). iPad **[V6_Q25_D]**	Nominal	1 = Yes; 2 = No	V6_Q005_4
V6_Q005_E	What devices do you use to listen to music? (Please select either "yes" or "no" for each item). Tablet **[V6_Q25_E]**	Nominal	1 = Yes; 2 = No	V6_Q005_5
V6_Q005_F	What devices do you use to listen to music? (Please select either "yes" or "no" for each item). iPod **[V6_Q25_F]**	Nominal	1 = Yes; 2 = No	V6_Q005_6
V6_Q005_G	What devices do you use to listen to music? (Please select either "yes" or "no" for each item). MP3 Device **[V6_Q25_G]**	Nominal	1 = Yes; 2 = No	V6_Q005_7
V6_Q005_H	What devices do you use to listen to music? (Please select either "yes" or "no" for each item). Smart Phone **[V6_Q25_H]**	Nominal	1 = Yes; 2 = No	V6_Q005_8
V6_Q005_I	What devices do you use to listen to music? (Please select either "yes" or "no" for each item). Other **[V6_Q25_I]**	Nominal	1 = Yes; 2 = No	V6_Q005_9
V6_Q005_I_TEXT	What devices do you use to listen to music? (Please select either "yes" or "no" for each item). Other **[V6_Q25_J]**	String		V6_Q005_9_TEXT
V6_Q006	Do you purchase music?	Nominal	1 = Yes; 2 = No	V6_Q006
V6_Q007	If yes, what is the most you have spent in one month to purchase new music?	Ordinal	1 = $1 - $5; 2 = $6 - $10; 3 = $11 - $15; 4 = $16 - $20; 5 = $21 - $25; 6 = $26 - $30; 7 = $31 - $35; 8 = $36 - $40; 9 = Other	V6_Q007
V6_Q007_9_TEXT	If yes, what is the most you have spent in one month to purchase new music? Other **[V6_Q27_9]**	String		V6_Q007_9

APPENDIX D (continued)

QUANTITATIVE DATA CODING SHEET
DANIELLE BISHOP – MILLENNIALS AND MUSIC

V6_Q008	How do you obtain your music? **[V6_Q28]**	Scale	1 = "I listen to free radio"; 2 = "I download free music"; 3 = "I pay for downloaded"; 4 = "I pay a monthly subscription for music"	V6_Q008
	How do you obtain your music? " I listen to free music" **[V6_Q28_A]**	Scale	1 = "Not Likely"; 2 = 2; 3 = 3; 4 = 4; 5 = Very Likely	V6_Q008
	How do you obtain your music? " I listen to free music" **[V6_Q28_B]**	Scale	1 = "Not Likely"; 2 = 2; 3 = 3; 4 = 4; 5 = Very Likely	V6_Q008
	How do you obtain your music? " I listen to free music" **[V6_Q28_C]**	Scale	1 = "Not Likely"; 2 = 2; 3 = 3; 4 = 4; 5 = Very Likely	V6_Q008
	How do you obtain your music? " I listen to free music" **[V6_Q28_D]**	Scale	1 = "Not Likely"; 2 = 2; 3 = 3; 4 = 4; 5 = Very Likely	V6_Q008
V6_Q009	How much do commercial advertisements influence your willingness to pay for music?	Scale	1 = None; 2 = 2; 3 = 3; 4= 4; 5 = A Lot	V6_Q008
D001	[VA - Q1] Year Born	Scale	(YYYY)	CE-D1
D002	[VA - Q2] Sex	Nominal	1=Male 2=Female	CE-D2
D003_A	[VA - Q3] Race: American Indian/Alaskan Native	Nominal	American Indian or Alaska Native: Yes =1; No=2	CE-D3
D003_B	[VA - Q3] Race: Asian	Nominal	Asian: Yes=1; No=2	CE-D3
D003_C	[VA - Q3] Race: Black/ African American	Nominal	Black or African American: Yes=1; No=2	CE-D3
D003_D	[VA - Q3] Race: Native Hawaiian or other Pacific Islander	Nominal	Native Hawaiian or other Pacific Islander: Yes=1; No=2	CE-D3
D003_E	[VA - Q3] Race: White	Nominal	White: Yes=1; No=2	CE-D3
D003_F	[VA - Q3] Race: Other	Nominal	Other: Yes=1; No=2	CE-D3
D003_G	[VA - Q3] Race: Other	String		CE-D3
D004	[VA - Q4] Spanish Descent	Nominal	Yes=1 No=2	CE-D4
D005	[VA - Q5] Speak Spanish in the home	Nominal	Yes=1 No=2	CE-D5
D005_A	[VA - Q6] Languages in the home	Nominal	Only Spanish=1; Mostly Spanish=2; English and Spanish=3; Mostly English=4; Only English=5	CE-D6
D006_A	[VA – Q7] Members in Household: Adult	Scale	Adult: (NN)	CE-D7
D006_B	[VA – Q7] Members in Household: Children	Scale	Children: (NN)	CE-D7

APPENDIX D (continued)

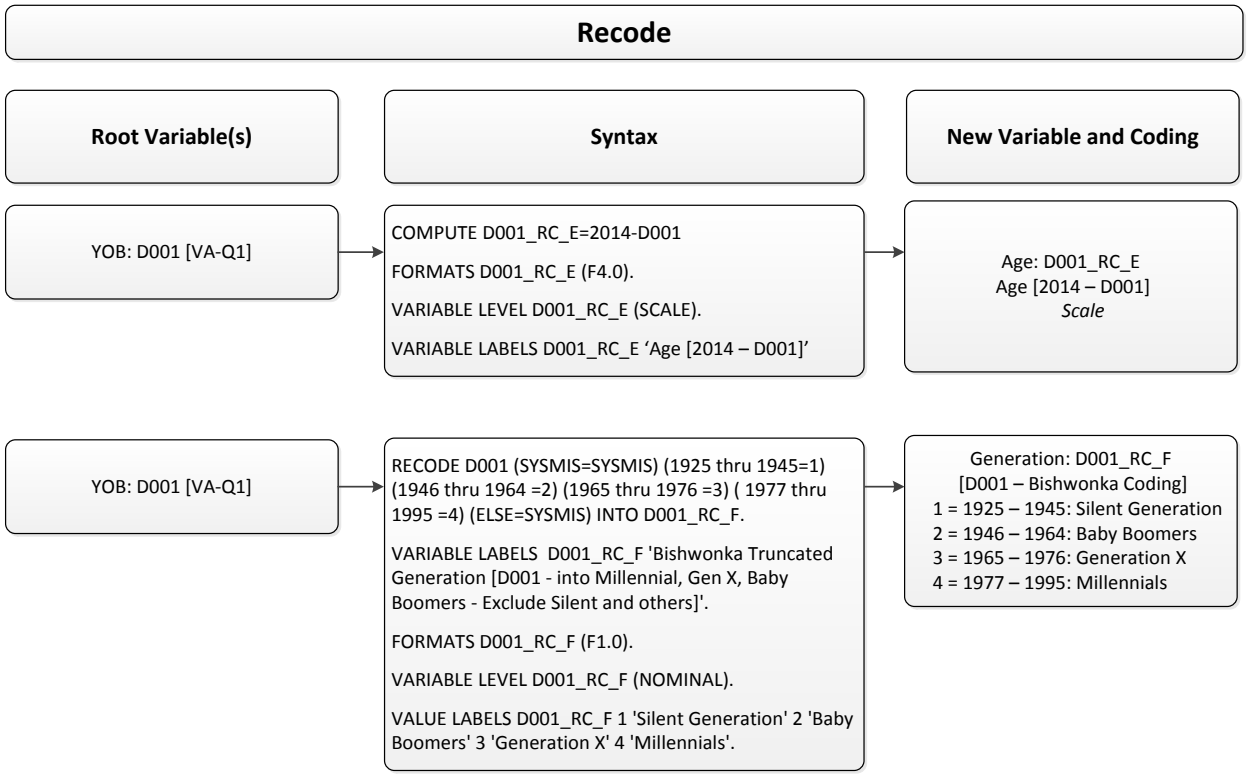
QUANTITATIVE DATA CODING SHEET
DANIELLE BISHOP – MILLENNIALS AND MUSIC

D007	[VA – Q8] Household Income	Ordinal	<$30,000=1; $30,000-$49,999=2; $50,000-$99,999=3; $100,000-$249,999=4; >$250,000=5	CE-D8
D008	[VA – Q9] Working cell phone	Nominal	Yes=1 No=2	CE-D9
D009	[VA – Q10] Working smartphone	Nominal	Yes=1 No=2	CE-D10
D010	[VA – Q11] Working TV sets	Ordinal	0=1; 1=2; 2=3; 3=4; 4=5; 5+=6	CE-D11
D011_A	[VA – Q12] TOD TV Weekday Morning	Nominal	Weekdays: Morning Yes=1 No=2	CE-D12
D011_B	[VA – Q12] TOD TV Weekday Afternoon	Nominal	Weekdays: Afternoon Yes=1 No=2	CE-D12
D011_C	[VA – Q12] TOD TV Weekday Evening	Nominal	Weekdays: Evening Yes=1 No=2	CE-D12
D011_D	[VA – Q12] TOD TV Weekend Morning	Nominal	Weekends: Morning Yes=1 No=2	CE-D12
D011_E	[VA – Q12] TOD TV Weekend Afternoon	Nominal	Weekends: Afternoon Yes=1 No=2	CE-D12
D011_F	[VA – Q12] TOD TV Weekend Evening	Nominal	Weekends: Evening Yes=1 No=2	CE-D12
D012_A	[VA – Q13] Top 3 TV shows: 1	String		CE-D13
D012_B	[VA – Q13] Top 3 TV shows: 2	String		CE-D13
D012_C	[VA – Q13] Top 3 TV shows: 3	String		CE-D13
D013	[VA – Q14] Working Computers	Ordinal	0=1; 1=2; 2=3; 3=4; 4=5; 5+=6	CE-D14
D014_A	[VA – Q15] TOD Internet Weekday Morning	Nominal	Weekdays: Morning Yes=1 No=2	CE-D15
D014_B	[VA – Q15] TOD Internet Weekday Afternoon	Nominal	Weekdays: Afternoon Yes=1 No=2	CE-D15
D014_C	[VA – Q15] TOD Internet Weekday Evening	Nominal	Weekdays: Evening Yes=1 No=2	CE-D15
D014_D	[VA – Q15] TOD Internet Weekend Morning	Nominal	Weekends: Morning Yes=1 No=2	CE-D15
D014_E	[VA – Q15] TOD Internet Weekend Afternoon	Nominal	Weekends: Afternoon Yes=1 No=2	CE-D15
D014_F	[VA – Q15] TOD Internet Weekend Evening	Nominal	Weekends: Evening Yes=1 No=2	CE-D15
D015_A	[VA – Q16] Top 3 websites visited: 1	String		CE-D16
D015_B	[VA – Q16] Top 3 websites visited: 2	String		CE-D16
D015_C	[VA – Q16] Top 3 websites visited: 3	String		CE-D16
D016	[VA – Q17] Working Radios	Ordinal	0=1; 1=2; 2=3; 3=4; 4=5; 5+=6	CE-D1731
D017_A	[VA – Q18] TOD Radio Weekday Morning	Nominal	Weekdays: Morning Yes=1 No=2	CE-D18
D017_B	[VA – Q18] TOD Radio Weekday Afternoon	Nominal	Weekdays: Afternoon Yes=1 No=2	CE-D18
D017_C	[VA – Q18] TOD Radio Weekday Evening	Nominal	Weekdays: Evening Yes=1 No=2	CE-D18
D017_D	[VA – Q18] TOD Radio Weekend Morning	Nominal	Weekends: Morning Yes=1 No=2	CE-D18
D017_E	[VA – Q18] TOD Radio Weekend Afternoon	Nominal	Weekends: Afternoon Yes=1 No=2	CE-D18
D017_F	[VA – Q18] TOD Radio Weekend Evening	Nominal	Weekends: Evening Yes=1 No=2	CE-D18

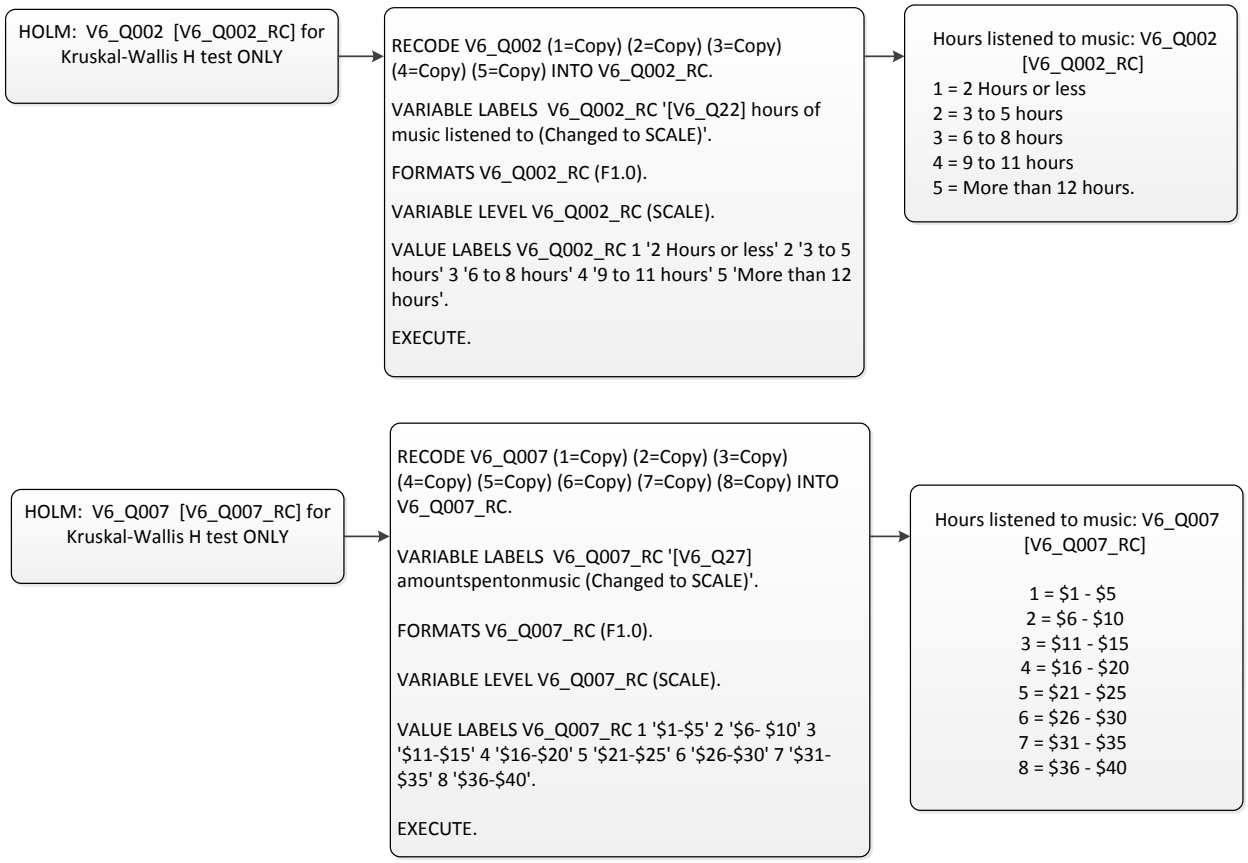
APPENDIX D (continued)

D018	[VA – Q19] Radio Station Genre	Nominal	Country=1; HipHop/R&B=2; Mix/Adult Contemporary=3; News/Talk/Sports=4; Rap/Urban=5; Rock=6; Christian=7; Other=8	CE-D19
D019	[VA – Q20; V4 – Q45; V5 – Q120] Texas A&M	Nominal	1=Yes 2=No	CE-D20

APPENDIX E


Recode
Root Variable(s)
Syntax
New Variable and Coding
YOB: D001 [VA-Q1]
COMPUTE D001_RC_E=2014-D001
FORMATS D001_RC_E (F4.0).
VARIABLE LEVEL D001_RC_E (SCALE).
VARIABLE LABELS D001_RC_E 'Age [2014 – D001]'
Age: D001_RC_E
Age [2014 – D001]
Scale
YOB: D001 [VA-Q1]
RECODE D001 (SYSMIS=SYSMIS) (1925 thru 1945=1) (1946 thru 1964 =2) (1965 thru 1976 =3) (1977 thru 1995 =4) (ELSE=SYSMIS) INTO D001_RC_F.
VARIABLE LABELS D001_RC_F 'Bishwonka Truncated Generation [D001 - into Millennial, Gen X, Baby Boomers - Exclude Silent and others]'.
FORMATS D001_RC_F (F1.0).
VARIABLE LEVEL D001_RC_F (NOMINAL).
VALUE LABELS D001_RC_F 1 'Silent Generation' 2 'Baby Boomers' 3 'Generation X' 4 'Millennials'.
Generation: D001_RC_F
[D001 – Bishwonka Coding]
1 = 1925 – 1945: Silent Generation
2 = 1946 – 1964: Baby Boomers
3 = 1965 – 1976: Generation X
4 = 1977 – 1995: Millennials

APPENDIX E (continued)



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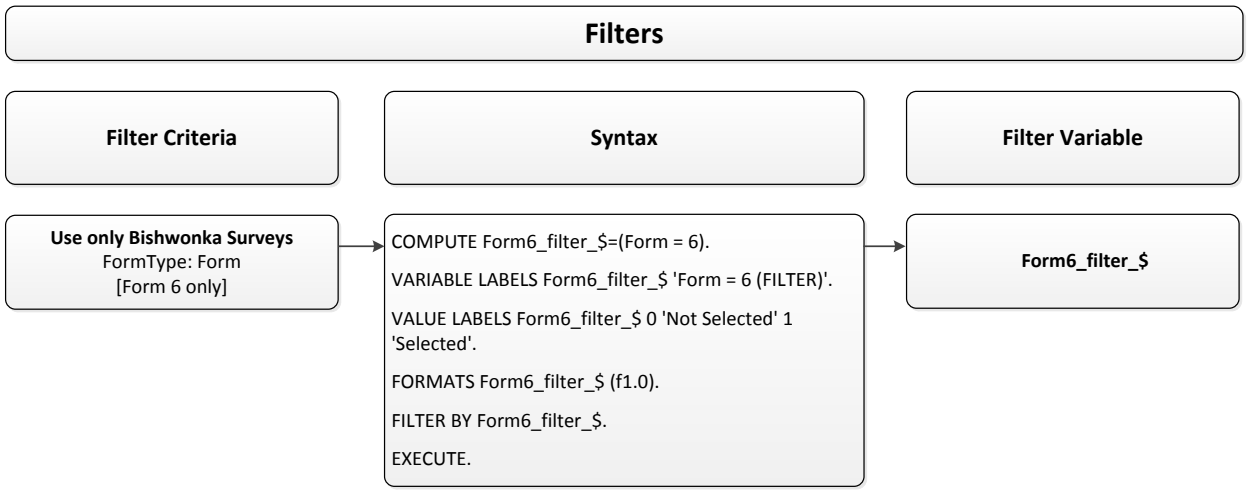

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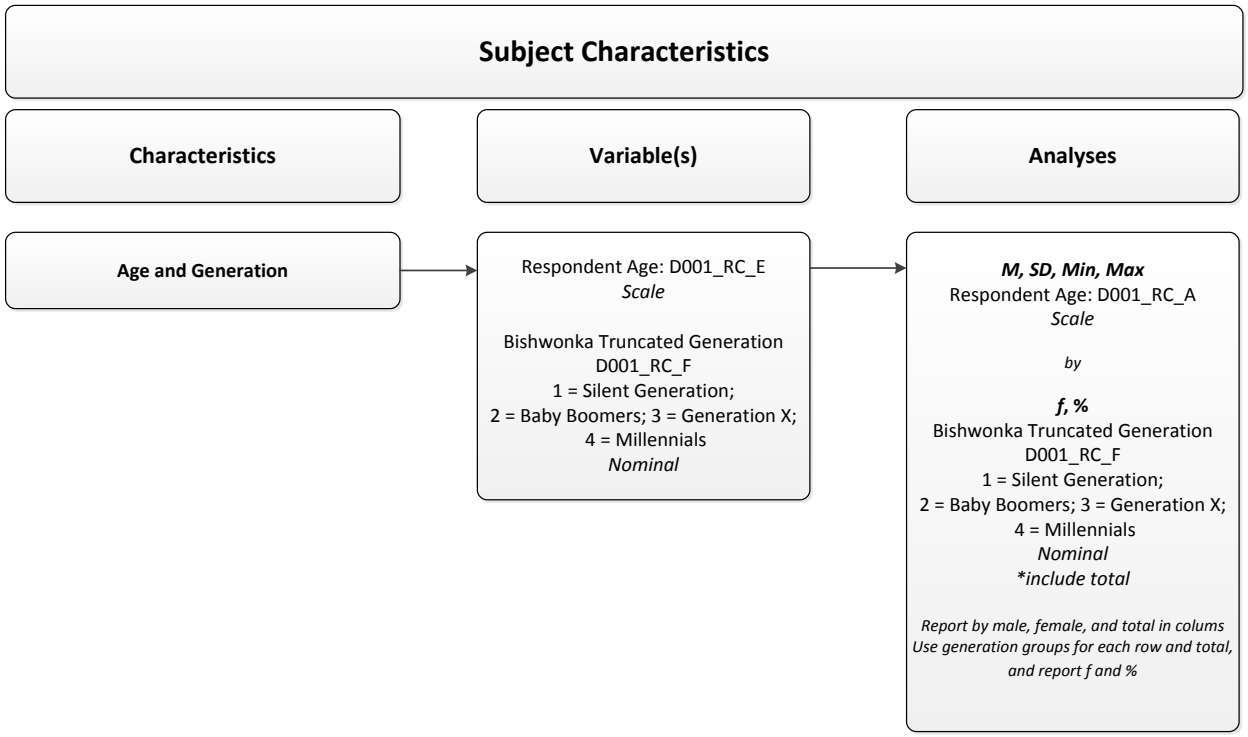
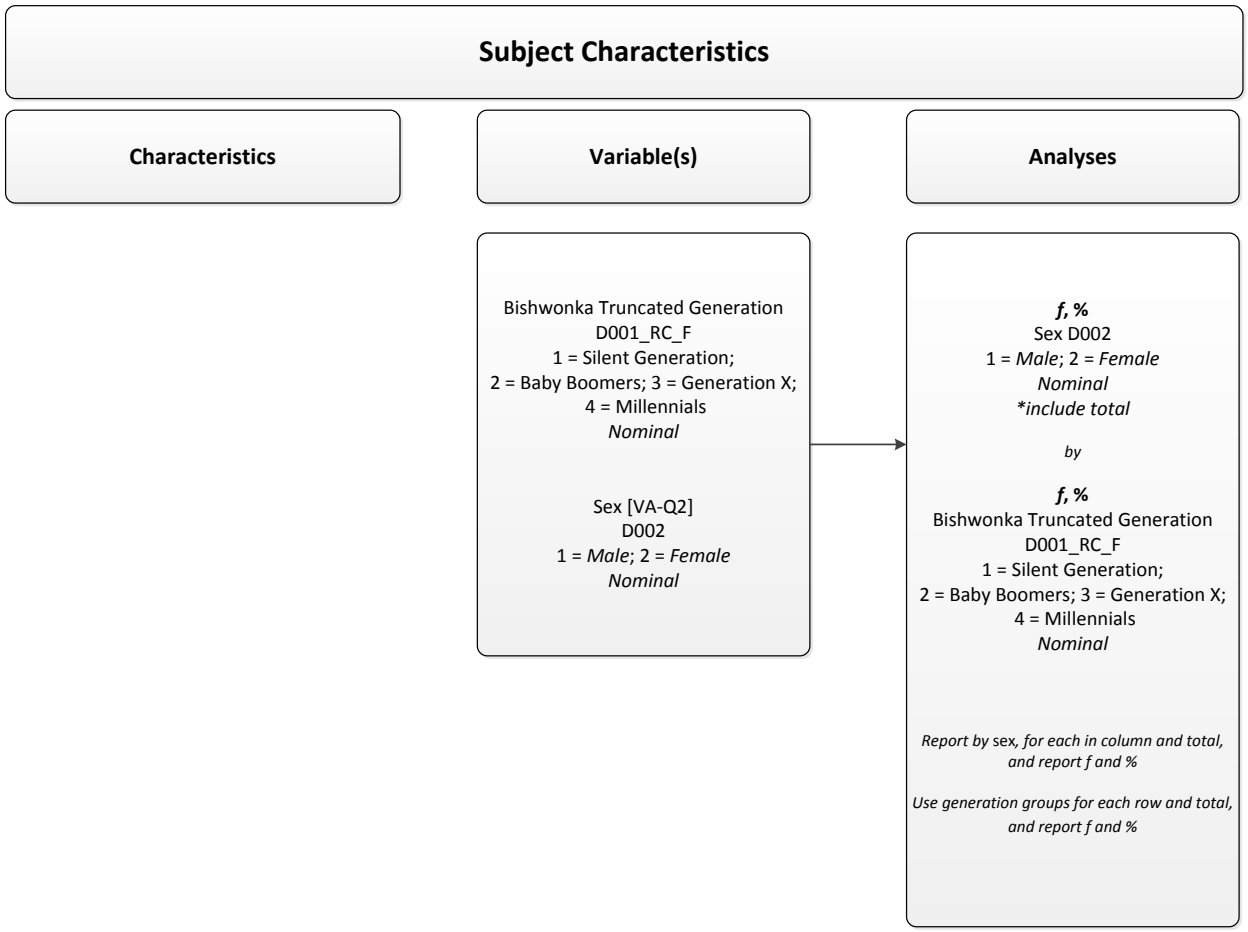
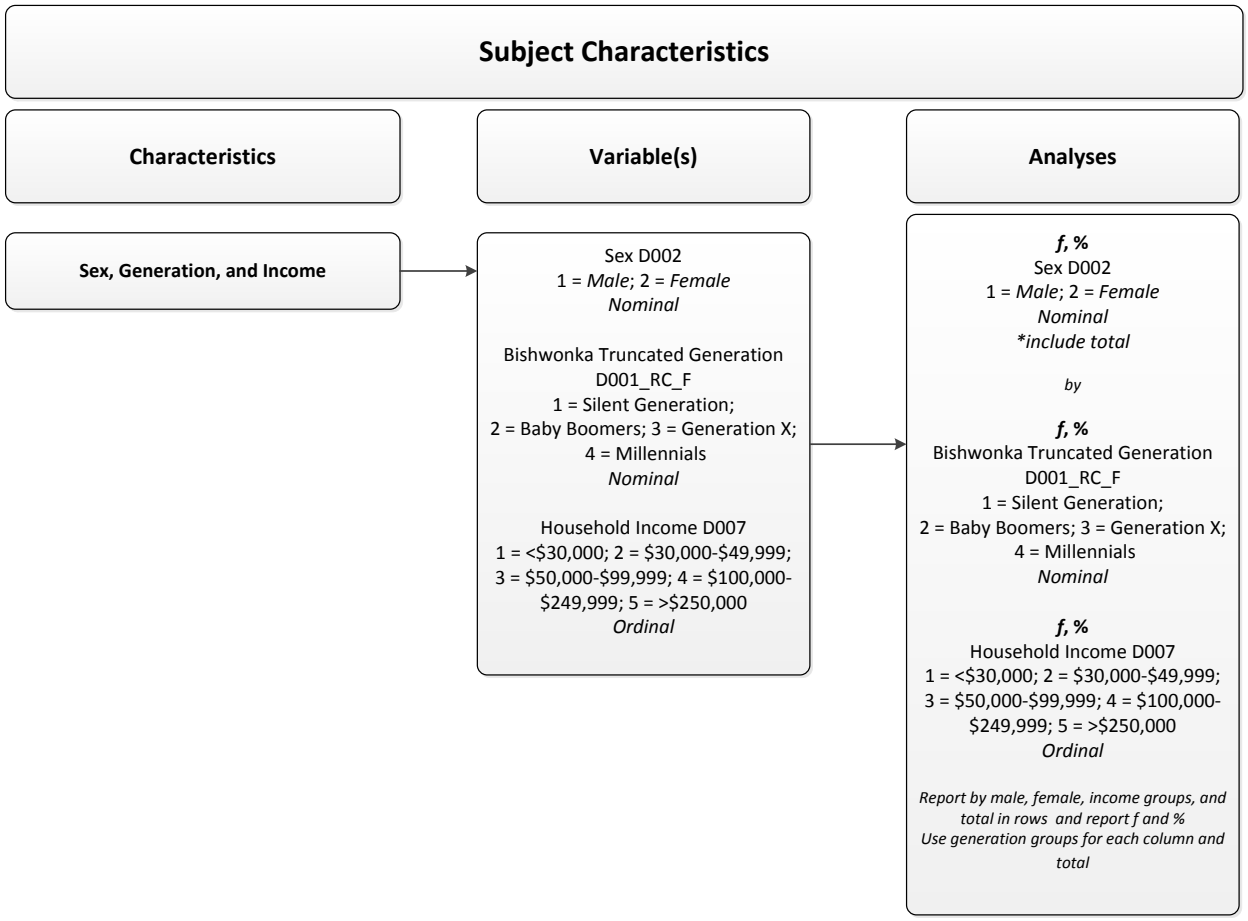


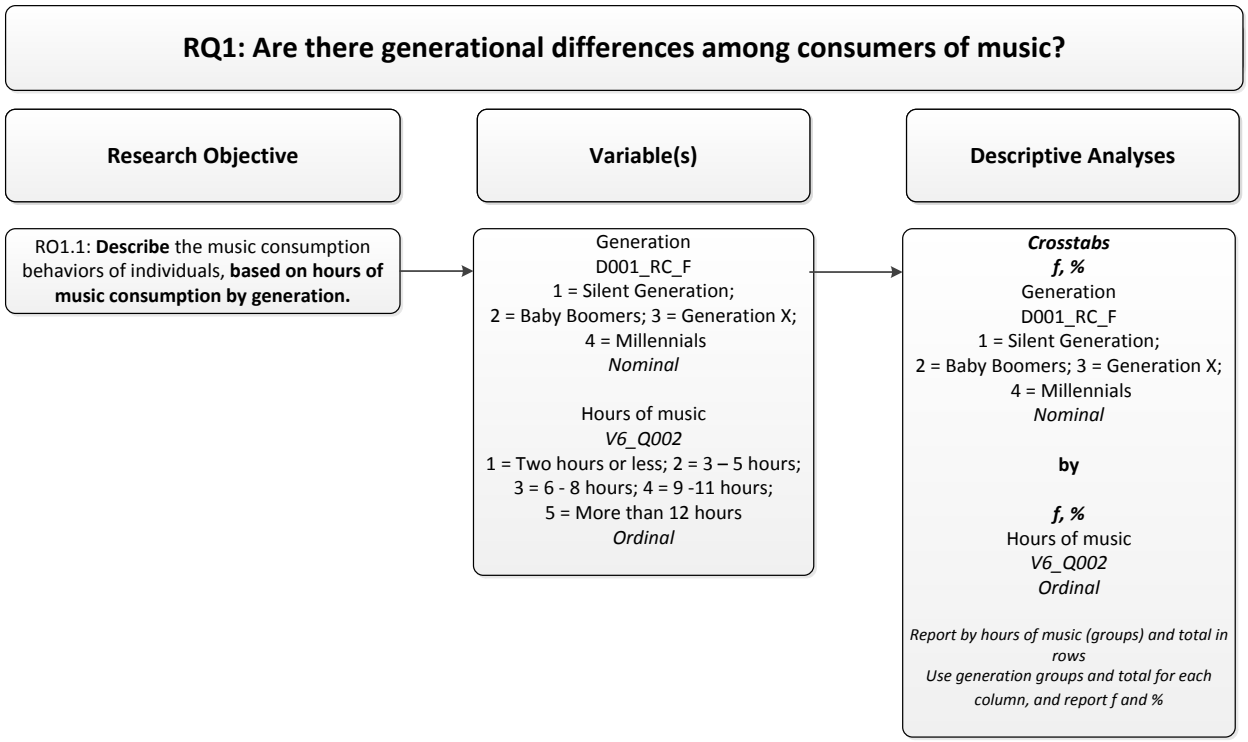
APPENDIX E (continued)



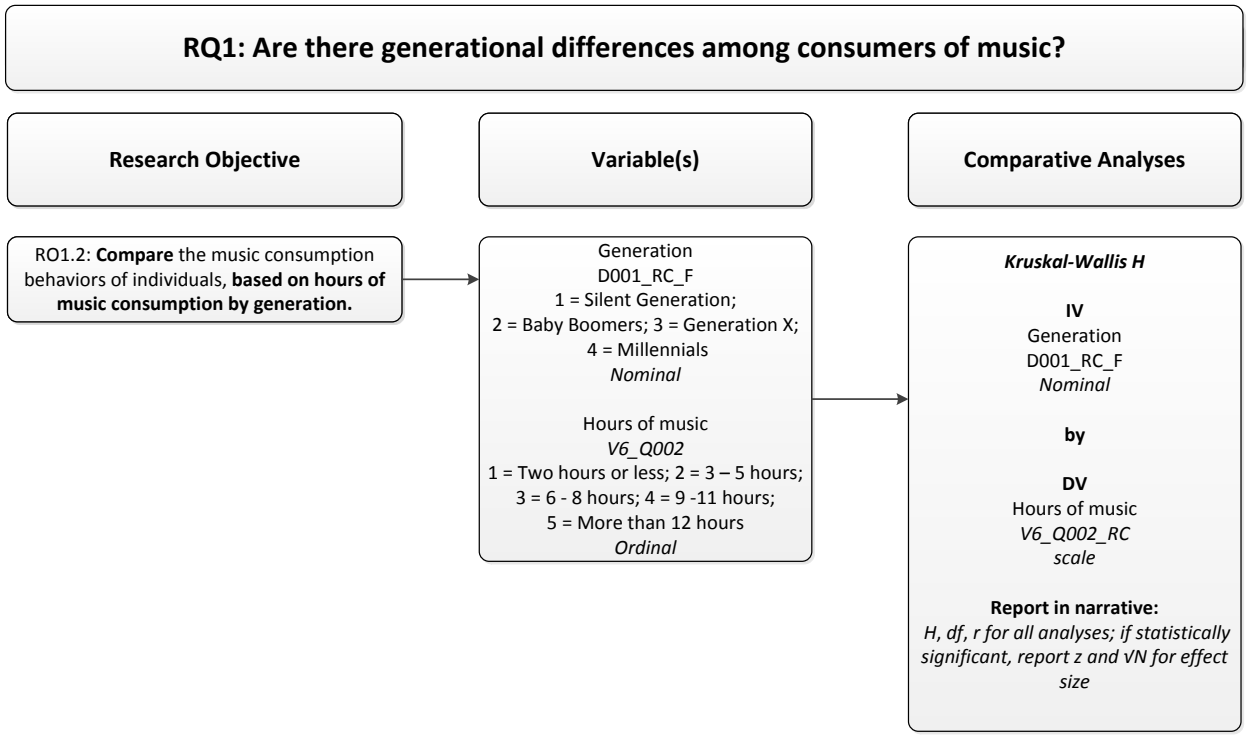
APPENDIX E (continued)



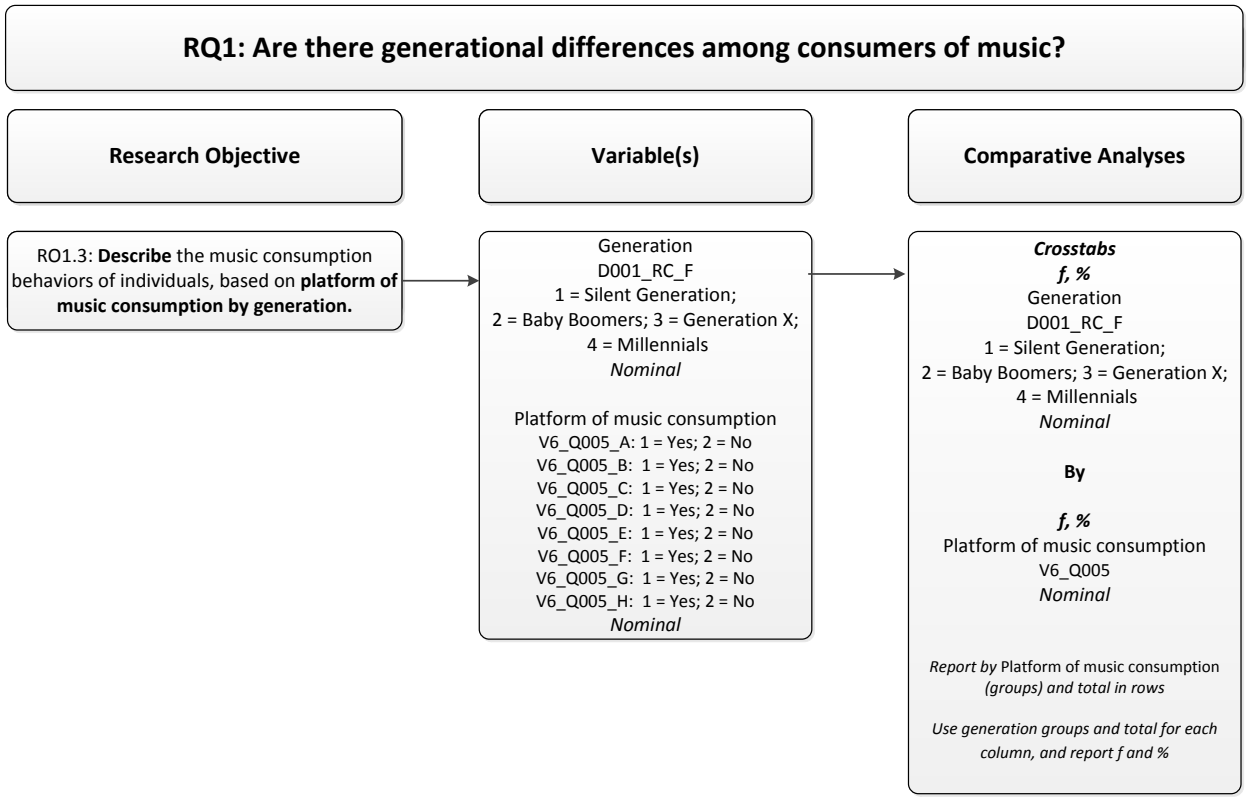
APPENDIX E (continued)



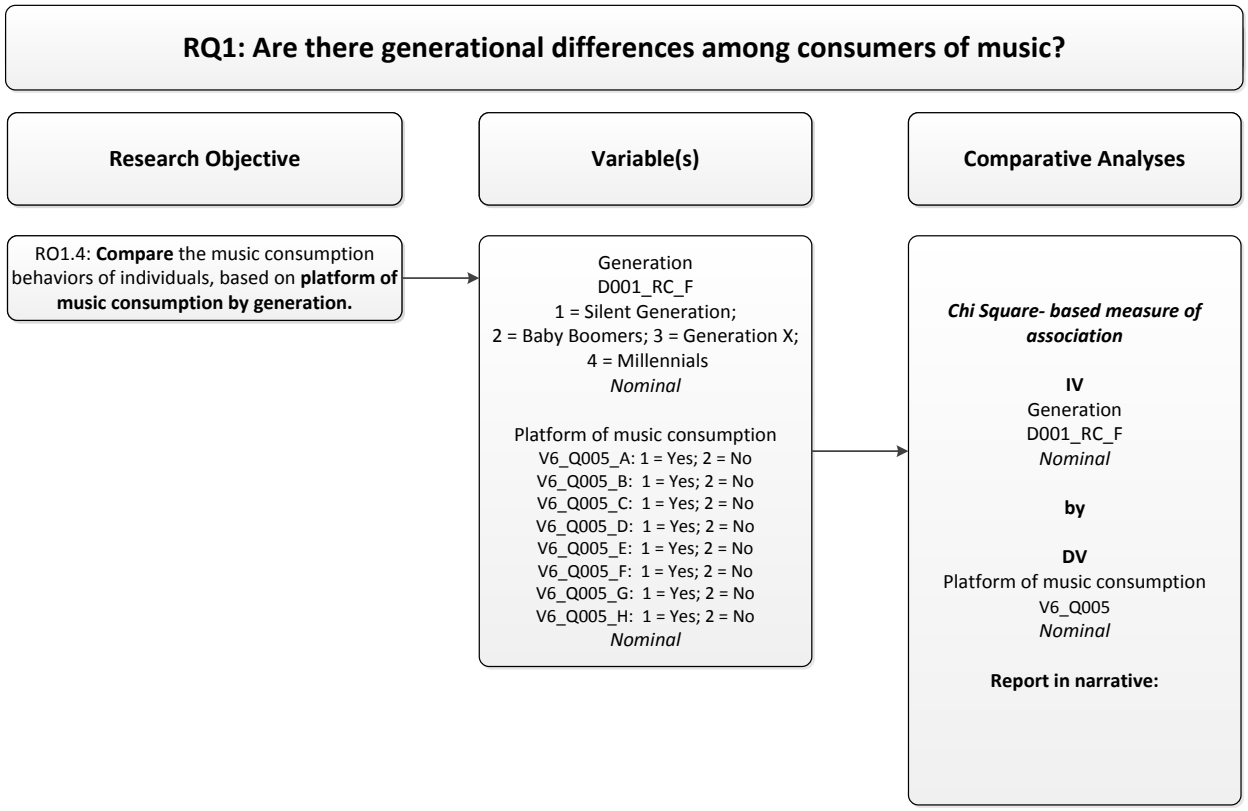
APPENDIX E (continued)



APPENDIX E (continued)



APPENDIX E (continued)



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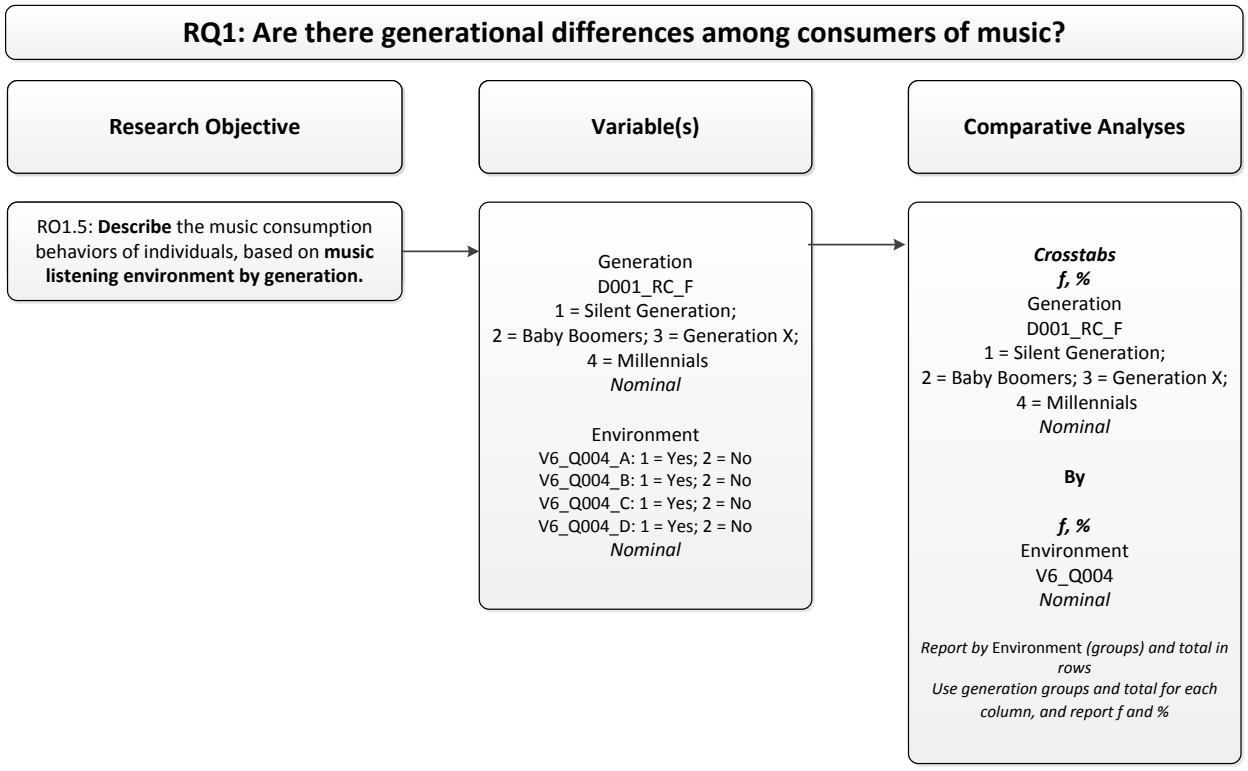
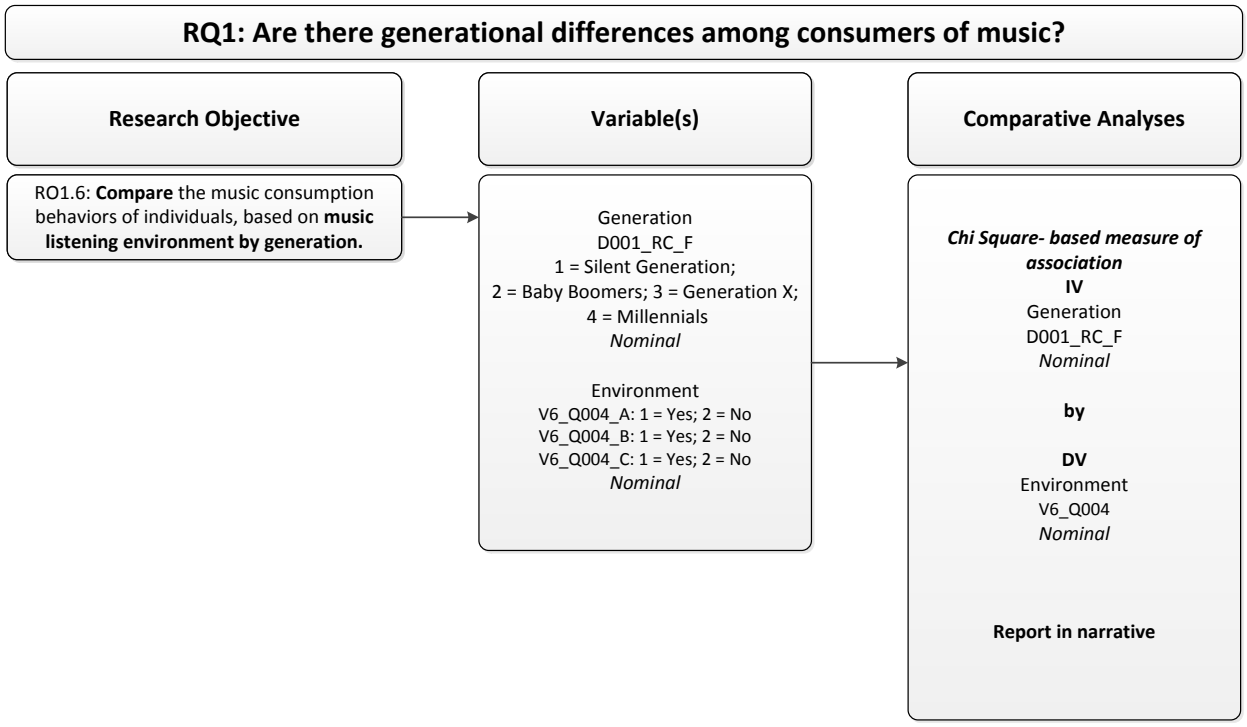
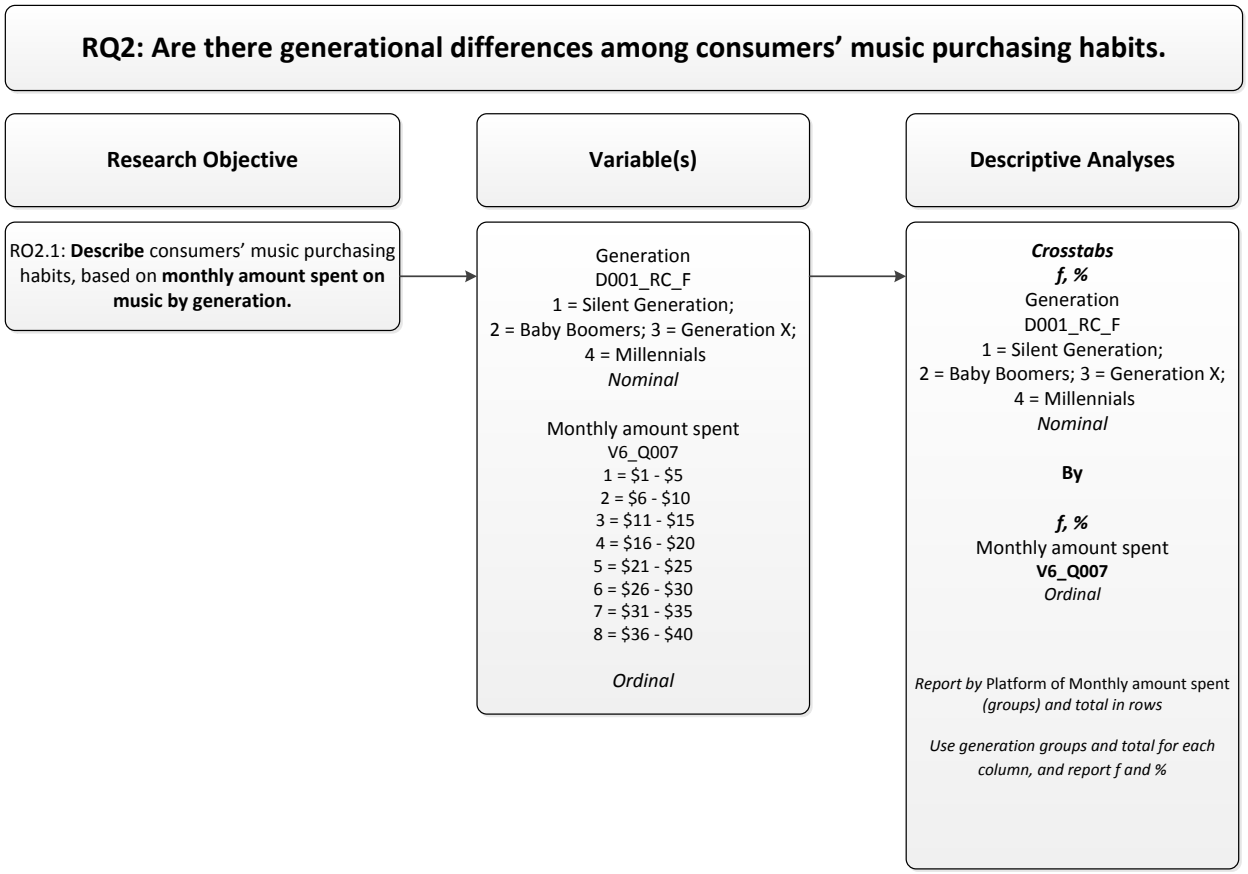


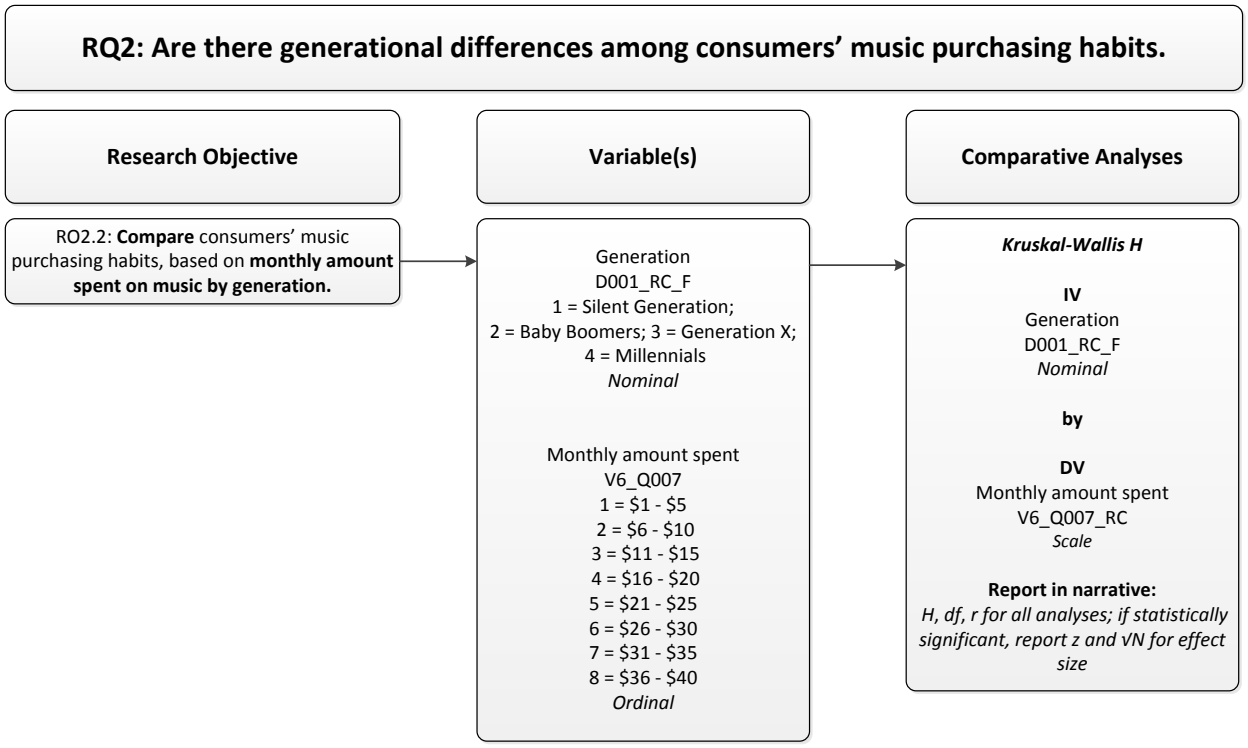
APPENDIX E (continued)



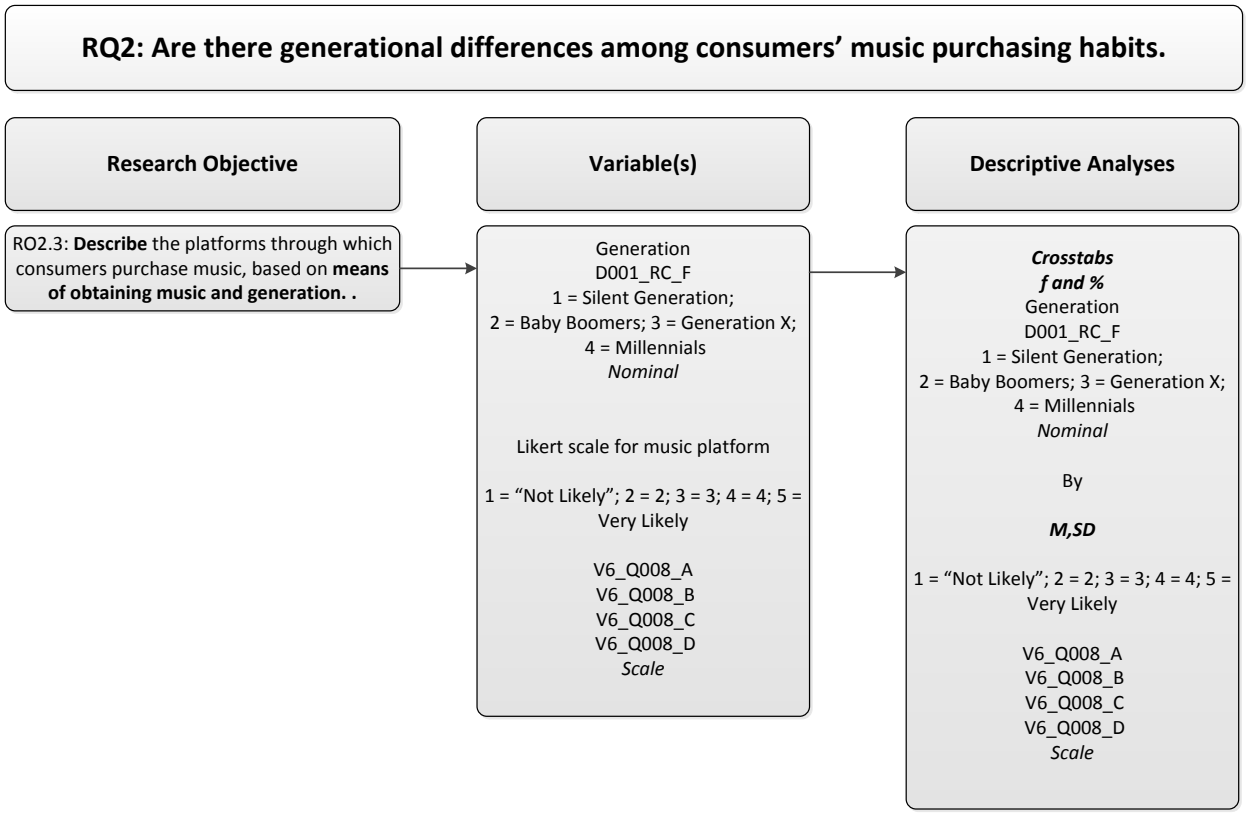
APPENDIX E (continued)



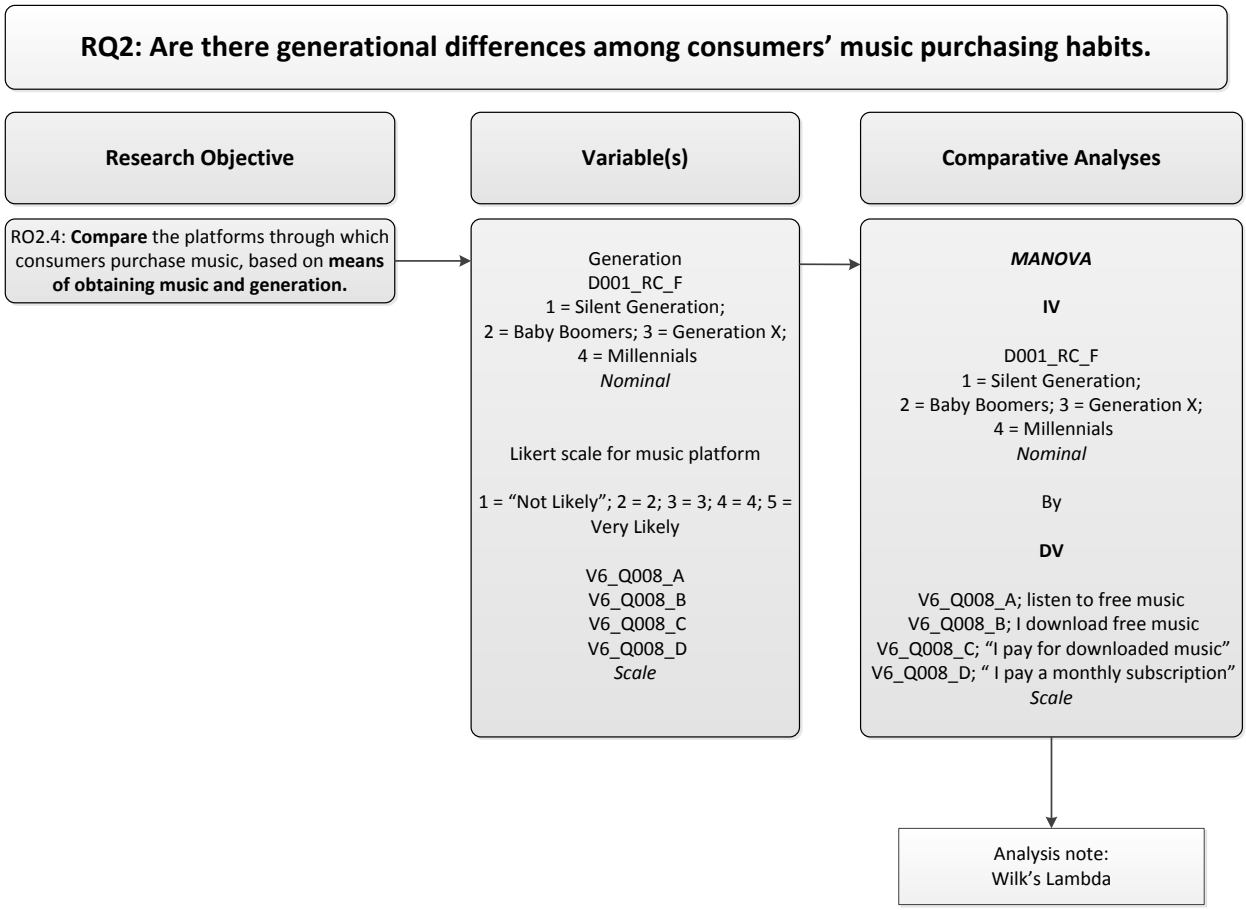
APPENDIX E (continued)



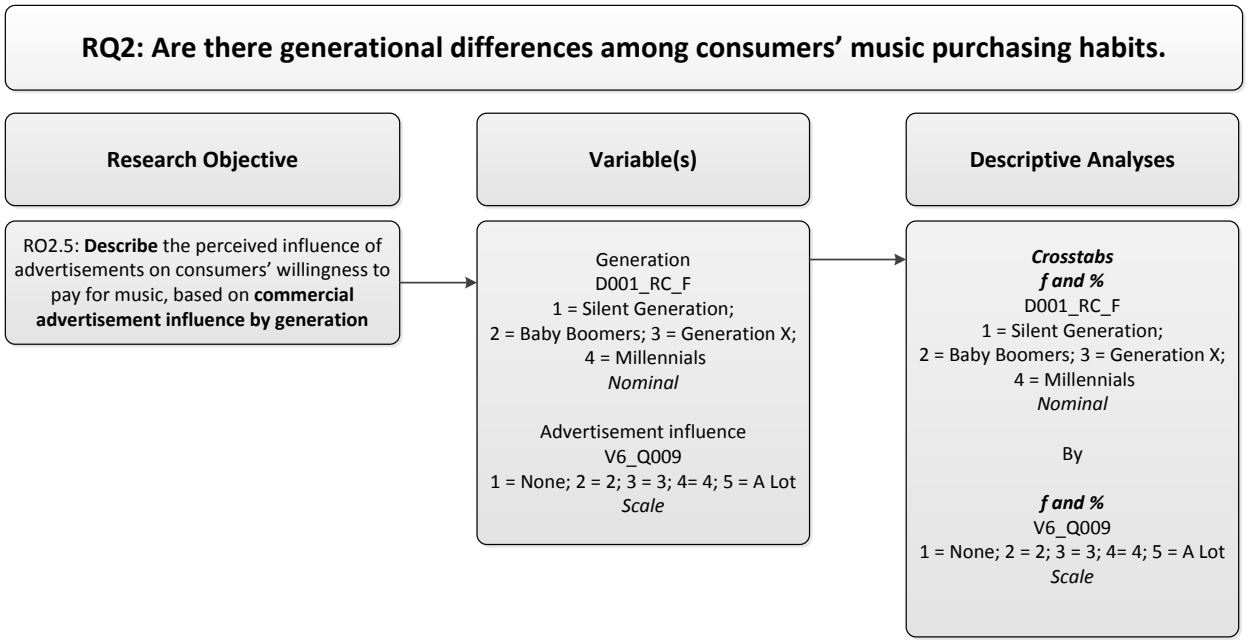
APPENDIX E (continued)



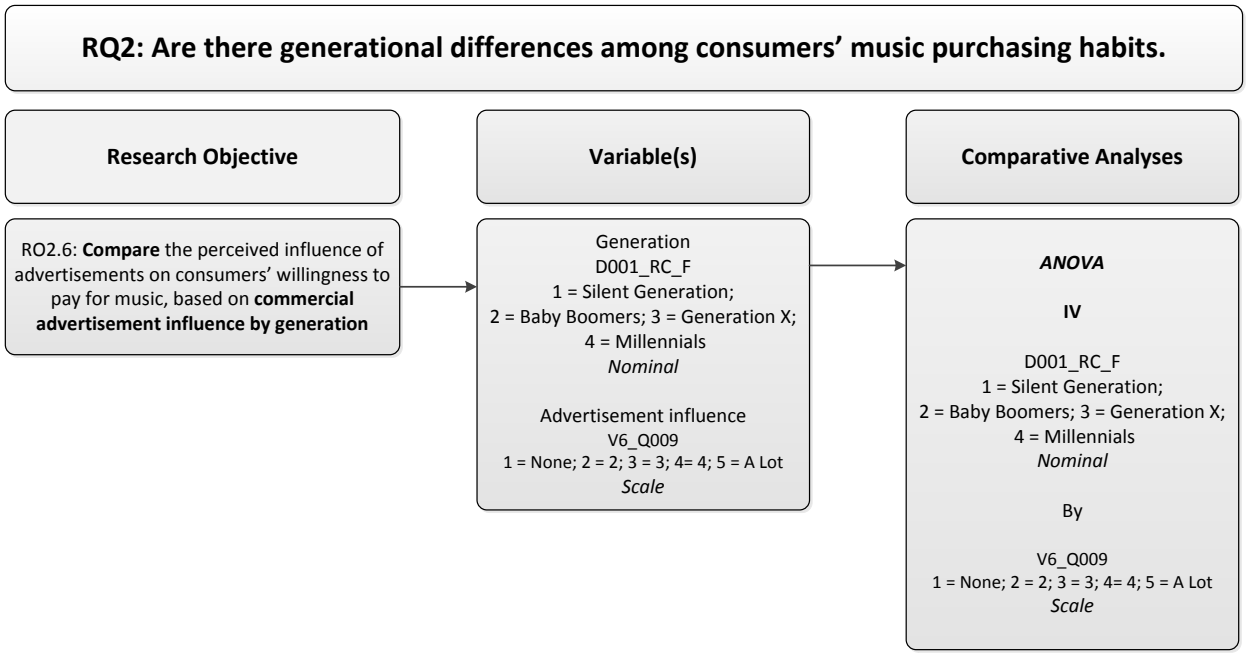
APPENDIX E (continued)



APPENDIX E (continued)



APPENDIX E (continued)



APPENDIX F

```
*********RECODES*********



*******Use only BISHWONKA Surveys******

COMPUTE Form6_filter_$=(Form = 6).
VARIABLE LABELS Form6_filter_$ 'Form = 6 (FILTER)'.
VALUE LABELS Form6_filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS Form6_filter_$ (f1.0).
FILTER BY Form6_filter_$.
EXECUTE.



*******GENERATION TOTALS BISHWONKA D001_RC_F BY RESPONDENT AGE D001_RC_E*******
* Custom Tables.
CTABLES
  /VLABELS VARIABLES=D001_RC_F D001_RC_E DISPLAY=LABEL
  /TABLE D001_RC_F BY D001_RC_E [COUNT F40.0, TOTALN F40.0]
  /CATEGORIES VARIABLES=D001_RC_F ORDER=A KEY=VALUE EMPTY=INCLUDE TOTAL=YES POSITION=AFTER.


********BISHWONKA GENERATION ALL - TOTALS*********

FILTER BY Form6_filter_$.
EXECUTE.

FREQUENCIES VARIABLES=D001_RC_G
  /ORDER=ANALYSIS.


******BISHWONKA GENERATION D001_RC_F********


***Recode YOB into Generation - Bishwonka Coding***


RECODE D001 (SYSMIS=SYSMIS) (1925 thru 1945=1) (1946 thru 1964 =2) (1965 thru 1976 =3) ( 1977 thru 1995 =4) (ELSE=SYSMIS) INTO D001_RC_F.
VARIABLE LABELS  D001_RC_F 'Bishwonka Truncated Generation [D001 - into Millennial, Gen X, Baby Boomers - Exclude Silent and others]'.
FORMATS D001_RC_F (F1.0).
VARIABLE LEVEL D001_RC_F (NOMINAL).
VALUE LABELS D001_RC_F 1 'Silent Generation' 2 'Baby Boomers' 3 'Generation X' 4 'Millennials'.
```

APPENDIX E (continued)

```
*********Bishwonka Generation ALL*********

RECODE D001 (SYSMIS=SYSMIS) (Lowest thru 1924=1) (1925 thru 1945=2) (1946 thru 1964=3) (1965 thru 1976=4) (1977 thru 1995=5) (ELSE=SYSMIS) INTO D001_RC_G.
VARIABLE LABELS  D001_RC_G 'Bishwonka Generation ALL'.
FORMATS D001_RC_G (F1.0).
VARIABLE LEVEL D001_RC_G (NOMINAL).
VALUE LABELS D001_RC_G  1 'Greatest Generation' 2 'Silent Generation' 3 'Baby Boomers' 4 'Generation X' 5 'Millennials'.
EXECUTE.



***Recode V6_Q002 into V6_Q002_RC for Kruskal-Wallis H test ONLY***

RECODE V6_Q002 (1=Copy) (2=Copy) (3=Copy) (4=Copy) (5=Copy) INTO V6_Q002_RC.
VARIABLE LABELS  V6_Q002_RC '[V6_Q22] hours of music listened to (Changed to SCALE)'.
FORMATS V6_Q002_RC (F1.0).
VARIABLE LEVEL V6_Q002_RC (SCALE).
VALUE LABELS V6_Q002_RC 1 '2 Hours or less' 2 '3 to 5 hours' 3 '6 to 8 hours' 4 '9 to 11 hours' 5 'More than 12 hours'.
EXECUTE.


****Recode V6_Q007 into V6_Q007_RC for Kruskal-Wallis H test ONLY***

RECODE V6_Q007 (1=Copy) (2=Copy) (3=Copy) (4=Copy) (5=Copy) (6=Copy) (7=Copy) (8=Copy) INTO V6_Q007_RC.
VARIABLE LABELS  V6_Q007_RC '[V6_Q27] amountspentonmusic (Changed to SCALE)'.
FORMATS V6_Q007_RC (F1.0).
VARIABLE LEVEL V6_Q007_RC (SCALE).
VALUE LABELS V6_Q007_RC 1 '$1-$5' 2 '$6- $10' 3 '$11-$15' 4 '$16-$20' 5 '$21-$25' 6 '$26-$30' 7 '$31-$35' 8 '$36-$40'.
EXECUTE.

***Clear all***
USE ALL.
FILTER OFF.



***Subject Characteristics: Generational Groups by Age***

CTABLES
  /VLABELS VARIABLES=D001_RC_F D001_RC_E DISPLAY=LABEL
  /TABLE D001_RC_F [C] BY D001_RC_E [S][MEAN, COUNT F40.0, MAXIMUM, MINIMUM, STDDEV, COLPCT.COUNT PCT40.1]
  /CATEGORIES VARIABLES=D001_RC_F ORDER=A KEY=VALUE EMPTY=INCLUDE TOTAL=YES POSITION=AFTER.
```

APPENDIX E (continued)

```
****Subject Characteristics: Sex, income, Generation*****

CTABLES
  /VLABELS VARIABLES=D001_RC_F D008 D002 DISPLAY=LABEL
  /TABLE D001_RC_F [C][ROWPCT.COUNT PCT40.1, COLPCT.COUNT PCT40.1, COUNT F40.0, TOTALS[COUNT F40.0]] BY D008 [C] > D002 [C]
  /CATEGORIES VARIABLES=D001_RC_F D008 D002 ORDER=A KEY=VALUE EMPTY=INCLUDE TOTAL=YES POSITION=AFTER.


***Subject Characteristics: Generational groups by gender***

FILTER BY Form6_filter_$.
EXECUTE.

CTABLES
  /VLABELS VARIABLES=D001_RC_F D001_RC_E DISPLAY=LABEL
  /TABLE D001_RC_F BY D001_RC_E [COUNT F40.0, TOTALN F40.0, ROWPCT.COUNT PCT40.1, COLPCT.COUNT PCT40.1]
  /CATEGORIES VARIABLES=D001_RC_F ORDER=A KEY=VALUE EMPTY=INCLUDE TOTAL=YES POSITION=AFTER.



****Use Form 6 - BISHWONKA Surveys****

FILTER BY Form6_filter_$.
EXECUTE.


**RO1.1**

* Custom Tables.
CTABLES
  /VLABELS VARIABLES=V6_Q002 D001_RC_F DISPLAY=LABEL
  /TABLE V6_Q002 BY D001_RC_F [C][COUNT F40.0, ROWPCT.COUNT PCT40.1, TOTALS[COUNT F40.0, ROWPCT.COUNT PCT40.1, COLPCT.COUNT PCT40.1]]
  /CATEGORIES VARIABLES=V6_Q002 D001_RC_F ORDER=A KEY=VALUE EMPTY=INCLUDE TOTAL=YES POSITION=AFTER.



**RO1.2**

*Nonparametric Tests: Independent Samples.
NPTESTS
  /INDEPENDENT TEST (V6_Q002_RC) GROUP (D001_RC_F)
  /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE
  /CRITERIA ALPHA=0.05  CILEVEL=95.
```

```
 **RO1.3**

CTABLES
  /VLABELS VARIABLES=V6_Q005_A V6_Q005_B V6_Q005_C V6_Q005_D V6_Q005_E V6_Q005_F V6_Q005_G V6_Q005_H D001_RC_F
    DISPLAY=LABEL
  /TABLE V6_Q005_A + V6_Q005_B + V6_Q005_C + V6_Q005_D + V6_Q005_E + V6_Q005_F + V6_Q005_G + V6_Q005_H BY D001_RC_F [COUNT F40.0, COLPCT.COUNT PCT40.1, ROWPCT.COUNT PCT40.1]
  /CATEGORIES VARIABLES=V6_Q005_A V6_Q005_B V6_Q005_C V6_Q005_D V6_Q005_E V6_Q005_F V6_Q005_G V6_Q005_H ORDER=A KEY=VALUE EMPTY=INCLUDE TOTAL=YES POSITION=AFTER
  /CATEGORIES VARIABLES=D001_RC_F ORDER=A KEY=VALUE EMPTY=INCLUDE.


*Customs Tables.
FILTER BY Form6_filter_$.
EXECUTE.



**RO1.4**
*Chi Square- listenig environemnt**

FILTER BY Form6_filter_$.
EXECUTE.

CROSSTABS
  /TABLES=D001_RC_F BY V6_Q005_A V6_Q005_B V6_Q005_C V6_Q005_D V6_Q005_E V6_Q005_F V6_Q005_G V6_Q005_H
  /FORMAT=NOTABLES
  /STATISTICS=CHISQ PHI
  /COUNT ROUND CELL
  /BARCHART.
```

APPENDIX E (continued)

```
**** RO1.5*****

FILTER BY Form6_filter_$.
EXECUTE.
* Custom Tables.
CTABLES
  /VLABELS VARIABLES=V6_Q004_A V6_Q004_B V6_Q004_C D001_RC_F DISPLAY=LABEL
  /TABLE V6_Q004_A [COUNT F40.0, ROWPCT.COUNT PCT40.1, COLPCT.COUNT PCT40.1] + V6_Q004_B [COUNT F40.0, ROWPCT.COUNT PCT40.1, COLPCT.COUNT PCT40.1] + V6_Q004_C [COUNT F40.0, ROWPCT.COUNT PCT40.1, COLPCT.COUNT PCT40.1] BY D001_RC_F
  /CATEGORIES VARIABLES=V6_Q004_A V6_Q004_B V6_Q004_C D001_RC_F ORDER=A KEY=VALUE EMPTY=INCLUDE TOTAL=YES POSITION=AFTER.



***RO1.6***


FILTER BY Form6_filter_$.
EXECUTE.

CROSSTABS
  /TABLES=D001_RC_F BY V6_Q004_A V6_Q004_B V6_Q004_C
  /FORMAT=NOTABLES
  /STATISTICS=CHISQ PHI
  /COUNT ROUND CELL
  /BARCHART.


***RO2.1***

CTABLES
  /VLABELS VARIABLES=V6_Q007 D001_RC_F DISPLAY=LABEL
  /TABLE V6_Q007 [COUNT F40.0, ROWPCT.COUNT PCT40.1, COLPCT.COUNT PCT40.1] BY D001_RC_F
  /CATEGORIES VARIABLES=V6_Q007 D001_RC_F ORDER=A KEY=VALUE EMPTY=INCLUDE TOTAL=YES POSITION=AFTER.


***RO2.2****

NPTESTS
  /INDEPENDENT TEST (V6_Q007_RC) GROUP (D001_RC_F)
  /MISSING SCOPE=ANALYSIS USERMISSING=EXCLUDE
  /CRITERIA ALPHA=0.05  CILEVEL=95.


****RO2.3*****

FILTER BY Form6_filter_$.
EXECUTE.

CTABLES
  /VLABELS VARIABLES=V6_Q008_A V6_Q008_B V6_Q008_C V6_Q008_D V6_Q009 D001_RC_F DISPLAY=LABEL
  /TABLE V6_Q008_A [MEAN, COUNT F40.0, STDDEV, COLPCT.COUNT PCT40.1] + V6_Q008_B [MEAN, COUNT F40.0, STDDEV, COLPCT.COUNT PCT40.1] + V6_Q008_C [MEAN, COUNT F40.0, STDDEV, COLPCT.COUNT PCT40.1] + V6_Q008_D [MEAN, COUNT F40.0, STDDEV, COLPCT.COUNT PCT40.1]
  /CATEGORIES VARIABLES=D001_RC_F ORDER=A KEY=VALUE EMPTY=INCLUDE TOTAL=YES POSITION=AFTER.


CTABLES
  /VLABELS VARIABLES=V6_Q008_A V6_Q008_B V6_Q008_C V6_Q008_D V6_Q009 D001_RC_F DISPLAY=LABEL
  /TABLE V6_Q008_A [S][MEAN, MODE, MISSING] + V6_Q008_B [S][MEAN, MODE, MISSING] + V6_Q008_C [S][MEAN, MODE, MISSING] + V6_Q008_D [S][MEAN, MODE, MISSING] + V6_Q009 [S][MEAN, MODE, MISSING] BY D001_RC_F [C]
  /CATEGORIES VARIABLES=D001_RC_F ORDER=A KEY=VALUE EMPTY=INCLUDE TOTAL=YES POSITION=AFTER.


***RO2.4****

GLM V6_Q008_A V6_Q008_B V6_Q008_C V6_Q008_D BY D001_RC_F
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /EMMEANS=TABLES(OVERALL)
  /PRINT=DESCRIPTIVE ETASQ OPOWER HOMOGENEITY
  /CRITERIA=ALPHA(.05)
  /DESIGN= D001_RC_F.


****Follow up ANOVA****

**2.4**

UNIANOVA V6_Q008_A BY D001_RC_F
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /EMMEANS=TABLES(D001_RC_F)
  /PRINT=OPOWER ETASQ HOMOGENEITY DESCRIPTIVE
  /CRITERIA=ALPHA(.05)
  /DESIGN=D001_RC_F.


***RO2.5***

FILTER BY Form6_filter_$.
EXECUTE.

SORT CASES  BY D001_RC_F.
SPLIT FILE LAYERED BY D001_RC_F.

FREQUENCIES VARIABLES=V6_Q009
  /ORDER=ANALYSIS.

***RO 2.6***

UNIANOVA V6_Q009 BY D001_RC_F
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /EMMEANS=TABLES(D001_RC_F)
  /PRINT=OPOWER ETASQ HOMOGENEITY DESCRIPTIVE
  /CRITERIA=ALPHA(.05)
  /DESIGN=D001_RC_F.
```