

**Consumers' Preferences for Floral Gifts
among Generations X and Y**

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ABSTRACT

The floriculture industry is in the maturity stage of the product lifecycle, meaning there is a downward trend in demand, sales and profits. To counter this trend, these studies were designed to give insights into Generation X and Y consumers' preferences for floral products and floral gifts to determine the best marketing strategies to reach these generations. By targeting these underutilized markets, the floral industry can regenerate demand and sales. Data was collected in the Twin Cities, Minnesota, and Lansing and East Lansing, Michigan, through questionnaire questions and focus group discussions. A mixed ordered probit model was used to analyze the data. Results show significant differences in Generation X and Y consumers' perceptions of floral gifts, attributes, advertisements, price, ease of purchase, appreciation, occasion and risk. In general, Generation X consumers appreciated floral products more than Generation Y consumers.

The overall goal of this research was to give valuable insights to floral industry stakeholders concerning marketing decisions when promoting their products to Generations X and Y. Furthermore, recommendations based on the results are provided to assist in the implementation of these findings.

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INTRODUCTION

The floriculture industry, as addressed in this research, consists of businesses that purchase from wholesalers or nurseries, and sell the products (cut flowers, floral arrangements and potted plants) directly to the consumer (IBIS World, 2010). In the U.S. in 2006, the industry's revenue topped \$8.1 billion dollars, consisted of 44,559 establishments, and employed 122,595 employees whose wages totaled \$17 billion dollars (IBIS World, 2010). An average establishment's expenses consists mainly of purchases (45.1%), wages (21.5%), and selling expenses (10.3%), with all other factors being under 5%, including profits (1.9%). The primary market share consists of cut flowers (55%), indoor potted plants (15%), and unarranged cut flowers (11%) while services, giftware, artificial flowers, other merchandise and outdoor nursery plants had less than 5% of shares each. As a whole, the industry is highly fragmented with the main four companies holding 3.7% of the total revenue, of which 2% is held by 1-800 FLOWERS (IBIS World, 2010). The majority of the businesses are small family or owner ran shops (over 50%) with less than 9 employees (88%).

However, since 2006, industry revenue has decreased on average 4.92% each year, with the decreasing trend starting in the early 1990s (IBIS World, 2010; Silvergleit, 2009).

The decreasing trend in flowers and floral product purchases among consumers (AFE, 2008) has led to increased interest in altering floriculture marketing mixes to attract new consumers. Previous research shows the floriculture industry is in the maturity stage of the product life cycle which is characterized by decreasing demand, sales and profits (Behe et al., 2003; IBIS World, 2010). By attracting new customers, the decline in sales

will be disrupted and demand will be regenerated and successfully bring the floriculture industry back to the profitable growth stage of the product life cycle. Consumers between the ages of 25 and 54 years are the primary floral purchasers (66.9%) with females purchasing well over 70% (IBIS World, 2010). Yet, among young consumers is where the decline is more noticeable resulting in greater industry interest in pursuing and developing the younger market segments. Market segmentation is done in order to improve the ease of communicating with and marketing to the target market. Generations X and Y are two market segments of interest.

Generation X members were born between 1965 and 1975 (Dunn, 1993) and are more preoccupied with money and shopping when compared to Baby Boomers (Roberts et al., 2000). While Generation Y members were born between 1977 and 1994 and are more independent of media and celebrity influences than previous generations (Paul, 2001). Both groups spend money freely and are confident in using technology, such as the internet (Dunn, 2003; Morton, 2002; Rushkopf, 2001). Being aware of similarities in attitudes and responses among these groups can aid the floriculture industry in developing marketing mixes to reach these consumers.

Segmenting consumers into target markets is not a new technique to marketers, staying ahead of the competition through continual monitoring and altering the marketing mix is a constant process. To stay progressive, industries must often evaluate their marketing mix based on the four P's of marketing. The four P's of marketing include: Product, placement, promotion and price (Kerin, 2009). By examining current perceived industry

strengths and weaknesses among Generation X and Y consumers, marketers can use this information to develop an innovative marketing mix to initiate and promote floriculture enjoyment in younger consumers. By investigating the four P's of marketing, the floriculture industry can rejuvenate the industry from the maturity stage to the growth stage by adjusting to younger consumers' needs.

Reviving the interest in floral gifts may be one technique to improve demand and sales among younger consumers. Historically, floriculture gifts have been used by many cultures for many occasions (King, 2007; Gelfand, 2002; Seaton, 1995). More recently, floral gifts have frequently been used for fewer events, specifically get well and funeral occasions (Scammon et al., 1982; Shoemaker et al., 1994). When using an exclusive gift like flowers for a specific occasion repeatedly, an association may form between the two which is not always favorable to the product. For example, cut flowers often given at funerals may make cut flowers socially unacceptable gifts for happy occasions such as birthdays. Industry awareness of such associations is helpful because the marketing mix can be altered to change the association into a positive feature, such as cut flowers demonstrate thoughtfulness.

The first essay *Generations X and Y attitudes towards fresh flowers as gifts: Implications for the floral industry* addresses the four P's of marketing and consumers' attitudes related to those items within the floriculture industry. Specifically, different attitudes between the age groups, important floral attributes when making purchasing decisions, and the mental imagery of floral products among consumers were investigated to

discover ways to help increase the use of floral products as gifts among Generations X and Y. Previous research has shown that older consumers enjoy gardening and garden related experiences more than younger consumers (Behe et al., 2003; Dennis and Behe, 2007). Examining the four P's of marketing from the perspective of younger consumers will give insight on how to address and curb this divergence between the age groups.

Previous floriculture marketing research has focused on purchasing trends, trade and consumption patterns, specific crop attributes, and product repositioning (Behe et al., 2003; De Groot, 1998; Dennis et al., 2007; Oppenheim, 2000; Silvergleit, 2009; Yue et al., 2009). Known purchasing trends were used to direct the focus of this study to younger consumers. Combining this focal point with questions addressing different floral attributes, innovative insights were derived about the perceived strengths, weaknesses and opportunities facing the floriculture industry and make recommendations on techniques to attract younger consumers.

Building off of the four P's of marketing, the second essay *Floral gift appreciation, impressiveness, and risk perception by consumers in Generations X and Y* investigates using floral products as gifts to reposition the products and reverse the decreasing trend in floral purchases. Generation X and Y consumers' mental imagery, preferences and social acceptance of floral gifts were explored. Specifically, the negative and positive associations consumers have with floral gifts and how the connections varied and impacted consumers' actions among the different age groups were examined to gain insight into buyer behavior. By investigating young consumers' perceptions of

floriculture gifts, progressive steps and techniques to improve positive imagery and promotions can be suggested.

Previous research on gift giving shows that the best gifts take recipient's preferences into account (Teigen, et al., 2005). By examining floral gift preferences and the social acceptability of floral gifts, deeper insights into the gift giver's perception of the recipient's preferences were observed. From these observations, a detailed image of where floral gifts fit into the giver's scope when selecting gifts was developed.

Comparing this knowledge with current industry trends revealed areas that could be improved upon to decrease consumer skepticism in using floral gifts and increase the use of floral gifts among younger consumers.

Both essays explore Generations X and Y consumers' preferences in order to reverse the downward trend in the floral industry sales. The two essays are presented in detail in the attached documents. The first essay is completed and submitted to *HortScience* and is currently under review. The second study is unpublished and being prepared for submission to *HortScience* for review.

CHAPTER 1: Generations X and Y attitudes towards fresh flowers as gifts: Implications for the floral industry

Overview

Research shows that the demand for fresh cut flowers and floral products has been decreasing in recent years, particularly among young consumers. The objectives of this study were to identify issues the floral industry could address to improve sales of floral gift-giving among Generations X and Y, explore differences among different age groups to determine the best marketing means to reach them, detect floral attributes that are important to Generation X and Y consumers when making purchasing decisions, and determine Generation X and Y's mental imagery of floral products in order to alter the products' positioning to better meet their needs. Participants were recruited in the Twin Cities, Minnesota, and Lansing and East Lansing, Michigan. Participants were asked to complete a questionnaire and participate in a focus group. Mixed ordered probit model was used to analyze the data. Results showed that younger consumers were dissatisfied with several floral attributes including: short longevity, lack of trendiness, relative cost, lack of appropriateness, and lack of uniqueness. Often younger consumers felt their friends would not enjoy floral gifts. Additionally, younger consumers viewed floral advertisements less frequently, perceived the price as being more unreasonable than other gift items, and they were the least easy gifts to purchase, resulting in decreased awareness, interest, and convenience. Overall, most participants felt that floral sales or discounts, greater longevity, more price ranges, and trendier arrangements/flowers would increase their use of fresh flowers as gifts.

Introduction

Recent research suggests that the demand for fresh cut flowers and floral products is decreasing compared to several years ago, particularly among younger consumers (AFE, 2008) indicating these consumers have needs that are unmet by the current floral products (AFE, 2008, Burke 2007). Additionally, previous research has shown that the industry is in a mature stage in the product life cycle resulting in decreased profits and sales (Behe et al., 2003). One technique to reinvigorate sales out of the mature stage is to implement an innovative marketing strategy; that is, to introduce the product to a segment that currently does not use the product. Unlike Baby Boomers, younger consumers are not frequent users of floral products, giving marketers an opportunity to develop the younger consumer market, potentially shifting the product from the mature stage back to the growth stage. Based on this information, the current study explores the needs of consumers of different age cohorts to better understand how to find and attract new younger consumers to shift the fresh floral products back to the more profitable growth stage.

Consumers are not all alike and show different product attitudes and preferences because product attributes vary in importance among consumers. Earlier research suggests that market segmentation works well to centralize consumer needs and attract new customers (Oppenheim, 2000). Market segmentation groups together consumers with similar preferences and who will respond similarly to specific market mixes and stimuli (Oppenheim, 2000). Often segments are based on demographics, lifestyle forces, or product usage (Oppenheim, 2000). Under demographics, age has been successfully used

in studies to segment consumers by purchasing behavior (Roberts et al., 2000; Dennis and Behe, 2007). Segmentation on the basis of age works well because people of comparable ages have shared life experiences including historical events, social norms, political influences, and educational standards (Roberts et al., 2000). Greater availability of products has led to consumers' increased awareness of product quality and availability, environmentally sound production practices, services, and prices among floral purchasers resulting in the formation of different needs (de Groot, 1998).

Life experiences shape how consumers view products and make purchasing decisions. Previous studies suggest that as people age the importance of material items becomes less (Roberts et al., 2000) and greater enjoyment of gardening and garden like experiences occurs (Behe et al., 2003; Dennis and Behe, 2007).

Generation X and Generation Y are two distinct age groups that have been repeatedly studied (Silvergleit, 2009, Roberts et al., 2000, Barrow, 1994, Littrell et al., 2005) in other industries but have been neglected by the floral industry until recently. Generation X consists of 44 million people born in the U.S. between 1965 and 1976 (Dunn, 1993). Overall, people in this age group tend to be more interested in money, possessions, shopping and impulsive buying more than older generations potentially leading to greater credit card debt and personal bankruptcy (Roberts et al., 2000, Dunn, 1993). Members of this age cohort are also characterized as educated, media savvy, self-reliant and pragmatic often resulting in distrust of uneducated people (Littrell et al., 2005). Compared to older generations, Generation X has had greater exposure to cable TV and the Internet

(Bartlett, 1997, Roberts, 1998, Roberts et al. 2000) resulting in their being receptive to marketing and yet cynical and suspicious of it (Roberts et al., 2000, Freeman,1995).

Another segment is Generation Y which consists of 71 million people born in the U.S. to Baby Boomers between 1977 and 1994 (Paul, 2001, Morton, 2002). These individuals are believed to possess distinct traits and spending behaviors that differ from previous generations (Maciejewski, 2004). For instance, this group is more distrustful of politics and media due to their views being distorted on important issues in the past (Paul, 2001). Additionally, celebrities have less influence due to publicized scandals; as a result this generation has greater admiration and respect for parents and grandparents than celebrities (Paul, 2001). Another difference is Generation Y is accustomed to having discretionary dollars to spend and therefore expect to have it (Paul, 2001). For example, in 1999 Generation Y spent \$153 billion (Morton, 2002) and influenced their parents to spend \$48 billion (Rushkopf, 2001). With so much spending power, this group is a tempting market segment and gaining insight to their preferences greatly enhances an industry's ability to market to this group.

In this study, Generation X and Y were divided into more precise age cohorts to discover differences between the groups. The cohorts used were: Generation XX (41-50 year olds), Generation XY (31-40 year olds), and Generation Y (less than 30 years old). By dividing participants by age, more similarities and fewer differences in their needs within more narrow segments were detectable.

Over \$100 billion was spent each year in the U.S. on gifts (Parson, 2002), making understanding gift selection and purchasing decisions an important aspect for any industry. Gift giving often symbolizes cooperation (Bolle 2001), attractiveness, devotion, and social relationships (Huang et al., 2000). In addition, gifts can communicate intentions and attitudes of the gift giver in relationships (Burgoyne, 1999). Because of the amount of money spent on gifts by U.S. consumers and that 75-80% of floral transactions (approximately \$5 million of industry revenues) are for gifts (Silvergleit, 2009; IBIS World, 2010) and to address the problem of the downward trend in floral sales (Silvergleit, 2009; IBIS World, 2010), the present study was designed to explore the use of fresh cut flowers and blooming plants as gifts among Generations X and Y.

In order to optimize use of fresh floral products as gifts, the four P's of marketing (product, price, promotion and placement) must be explored (Kerin, 2009). The product is a good, service or idea that satisfies the consumer's needs such as a bouquet or florist services (Kerin, 2009). The price is what is exchanged for the product and the promotion is used as a means of communication between the seller and buyer (Kerin, 2009).

Promotion can be paid commercials, advertisements, internet pop-up advertisements or word-of-mouth. Placement is a means of getting the product to the consumer (Kerin, 2009). Placement can be a physical location, such as a retail store, or it can be mental imagery such as a company being perceived as environmentally friendly. This study explored perceptions of three age segments relative to product, price, promotion, and placement of fresh flowers as gifts. The overall objective of this study was to discover ways to help the floral industry improve sales through increasing the use of floral

products as gifts in Generations XX, XY and Y. Specifically we studied the following objectives:

- 1) Explore differences among different age groups to determine the best marketing techniques to reach them,
- 2) Detect the floral attributes that are important to Generation XX, XY and Y consumers when making purchasing decisions,
- 3) Determine Generation XX, XY and Y's mental imagery of floral products in order to alter the products' positioning to meet their needs.

The results of this research are important to florists, floral producers, and other marketing intermediaries that sell fresh floral products in improving product marketability and consumer loyalty via positive experiences. This study may also contribute to the literature on consumers' floral purchase decision making processes and use of floral gifts compared to other competing gifts of similar prices.

Materials and Methods

Participant Recruitment. Participants were recruited through multiple channels:

Advertisements in local newspapers and Craigslist. Advertising on campus was avoided to encourage a wider demographic to participate. To mitigate self-selection bias, in the advertisement, we did not mention that the study was about flowers as gifts. Instead, we specified that, "In order to participate, you must have purchased gifts in the past year and have to be between ages 18 and 50 years old." The newspapers went to both metro and

suburban areas. The study was conducted on April 18th and April 25th, 2009, at the University of Minnesota, and June 26th and June 27th, 2009, at Michigan State University. There were 109 participants from the Twin Cities, Minnesota, and 117 participants from Lansing and East Lansing, Michigan. The following three age groups were formed: 18-30 (“Generation Y”), 31-40 (“Generation XY”), and 41-50 year olds (“Generation XX”).

Sample distribution

ANOVA and MANOVA analysis was used to decipher differences between the states. No differences were significant resulting in the Minnesota and Michigan data being combined. Approximately 39% of participants were in Generation Y, 24% were in Generation XY, and 37% were in Generation XX (Table 1). Participants of all three generations averaged “some college” indicating similar education levels across all three groups and that a diverse group was obtained. All generations consisted of a greater percentage of females. A higher proportion of females was desired because previous research has shown females purchase more floral products than males (Yue and Behe 2008; Burke 2007). In Generation Y, 45% were not married or in a relationship, as were 35% of Generation XY, and 26% of Generation XX (Table 1). Generation Y averaged 2.3 people per household, Generation XY had 3.3 people per household, and Generation XX had 2.8 people per household (Table 1). This indicates that the sample of Generation XY consisted of people who have children that live with them consequently increasing the household numbers. As for income, Generation Y participants averaged \$39,710 per year, Generation XY had \$54,360 per year, and Generation XX had \$61,360 per year

(Table 1). The income results indicate the longer an individual is in the work force the greater his/her income is, resulting in older individuals having higher incomes.

Experiment Set-up. Participants were brought into a closed room and asked not to communicate with other participants. They were given a clipboard, pencil and folder containing a questionnaire, ID number, receipt, an introduction and permission forms. Participants were identified by their ID number throughout the experiment. The moderator read through the consent form, introduction form, and instructions and answered questions. Participants were then asked to complete the questionnaire.

Questionnaire. Each questionnaire consisted of questions concerning purchasing behaviors, attitudes towards gifts, flowers as gifts, gifts personality reflection, gift practicality, gifts choice by occasion, and participants' socio-demographics. Questions in the questionnaire included: How much do the following gifts (wine, cut flowers, CD/DVD/book, gift cards, plants, and food/candy) reflect your personality? How often do you purchase each of the gifts? What is your upper spending limit? What attributes are important to your purchasing decision? How often do you see the gifts being advertised? How easy are they for you to purchase? Do you think the market price is reasonable? For the complete questionnaire, see Appendix.

Focus groups. Upon completion of the questionnaire participants were divided into smaller groups (8-12 people) to participate in a focus group discussion. Predetermined questions were asked which allowed participants to elaborate on issues they had with floral gifts and the floral industry. The questions were formatted around the 4 P's of

marketing: Product, price, placement, and promotion (Kerin, 2009). For example, several questions included: What aspects are you not satisfied with (quality, color, variety, smell, cost, location)? What do you think about the services provided? Is the price fair? Where do you buy floral products from and why? Have you seen any promotions/ads lately about flowers? If so, where? Do you use on-line services for floral product purchases? What do you like/dislike about on-line services? What do you think about the currently available packaging? Are recycling and production practices important to you?

The conversations were analyzed and compared by age. At the end of the experiment, participants were then given \$40 to compensate for their time. Combined, 226 completed questionnaires were obtained from the Minnesota and Michigan studies.

Econometric model. Many of the questionnaire questions contain Likert scale options where participants were asked to indicate their intensity of agreement. A mixed ordered probit model was used to analyze consumers' opinions or attitudinal data because this model allows the intensity of feelings to be measured and the comparison of different questions answers for the same individual. The consumers' choice of the five categories is dependent on an underlying utility/satisfaction function from certain products' attributes. If U_{ij} is the utility/satisfaction that consumer i derives from j (the product), then U_{ij} can be expressed as follows:

$$U_{ij} = \alpha_j + \beta_1 agegroup_i + \beta_2 education_i + \beta_3 gender_i + \beta_4 marriage_i + \beta_5 household_i + \beta_6 income_i + y_i + \varepsilon_{ij} ; i = 1, \dots,$$

226 (n); $j = \text{wine, cut flowers, book, gift card, food, and plants}$. (1)

Where α_j is the design matrix which is a row vector of the i th consumer's characteristics, which include socio-demographics and product quality attributes; α_j is the dependent variable (selected gift) coefficient which participants selected; β_j is the socio-demographic coefficient associated with α_j indicating the effect of β_j on α_j ; γ_i is the random individual effect which is used to capture the correlation between the choices on multiple products made by the same individual; ε_{ij} is the residual error term that is not captured by design matrix α_i . There are 226 (n) consumers and 6 (J) products. For further model information see Appendix.

Additionally, we ran goodness of fit tests for the mixed ordered probit models using likelihood ratio tests to compare with standard ordered probit model. The goodness of fit test results are noted under each table. Both methods were performed in the SAS and STATA software packages.

Results and Discussion

Attitude towards and spending limit on floral gifts.

In general, participants agreed that fresh flowers are good gifts for cheering someone up, remembering something special, putting on a smile on someone's face, and conveying multiple messages. These results are consistent with earlier research (Oppenheim 2000). Most participants agreed that they enjoyed receiving flowers and flowers were safe gifts that were "hard to go wrong with." Additional findings revealed that Generation Y

participants agreed with these statements but significantly less than the other two groups and were more reluctant to spend money on perishable gifts such as fresh cut flowers.

Most participants disagreed with the statements: “Flowers are not in my scope of gifts, I don’t know much about floral gifts, flowers only work for certain occasions, flowers are traditional and for the older crowd, flowers are impersonal, flowers are not as surprising as other gifts, there are not enough choices, and florists are not located conveniently.”

For all of these statements, Generation Y agreed with them significantly more than the older generations. In addition, the analysis revealed several significant differences between Generation Y and the older generations. Generation Y agreed with the following statements: “My friends do not like to receive flowers as much as other gifts, other gifts are more appropriate, and I don’t see much advertising for flowers.” As a whole, Generation XX had the most positive attitude towards using flowers as gifts, Generation XY was in the middle, and Generation Y had the most negative attitude towards using flowers as gifts.

The Generation Y market is underdeveloped in the floral industry. Perhaps by increasing the number of promotions that demonstrate the positive attributes and trendiness of floral gifts, young consumers will be reassured, educated and more confident in using floral gifts. A new marketing message that flowers are peer safe, trendy and appropriate gifts for everyone could be used to overcome Generation Y’s “my peers don’t like receiving flowers” perception. One way, suggested by focus group participants, to improve the image of floral products is through increasing the longevity by supplying petal/flower drying kits and storage items (bookmarks, cards, etc.) The industry can suggest pairings

with products Generation Y participants like to increase the individuality image of flowers; or locate the store near another gift store that is perceived as trendy and offer discount coupons for the adjacent store to attract Generation Y. Dyed flowers and gimmicks should be avoided because Generation Y perceived them as cheapening the gift. Florists can add elements that improve the visual appeal of the gift without increasing the price because many consumers are shopping with a limited budget.

On average, the upper spending limit on gifts and floral gifts was the highest for birthday occasions with Generation XY spending the most on birthdays. The upper spending limit on floral gifts (Figure 1) was frequently lower than the spending limits on gifts in general (Figure 2). Overall, Generation Y spent the least on floral gifts compared to the other two generations indicating this group preferred more practical, long lasting gifts that reflect their sentiments and do not like spending money on perishable, luxury items.

With spending limits being higher for gifts in general than flowers, pairing them together has potential to increase the spending on floral gifts. Focus group participants mentioned being willing to spend more for unique or trendy arrangements, leading to the conclusion that by putting unique flowers into existing and new arrangements people will rationalize spending more money to get what they want for gifts. Additionally, promoting floral birthday gifts could increase sales and spending on floral gifts because participants indicate they were more willing to spend money on birthday gifts than for other occasions (Figure 1). Birthdays distribute the demand for fresh flowers over the calendar year, something the floral industry could benefit from. Having concentrated on holidays adds

to the stress and increases prices at specific points in time. Every consumer has a birthday and has potential to celebrate that event among many friends and relatives. Furthermore, smaller and cheaper arrangements of similar trendy, unique styles could be developed by the industry to increase selections within customers' budget limits and thus improve customer satisfaction.

Floral purchasing frequency and flowers knowledge

In Generation Y, 62 % purchased flowers 1-3 times annually and 4 % bought flowers >10 times per year (Figure 3). Generation XY was in the middle with 39 % purchasing flowers 1-3 times annually and 8 % buying flowers ≥ 10 times annually (Figure 4). In contrast, 29 % of Generation XX purchased flowers 1-3 times annually and 16 % bought flowers ≥ 10 times annually (Figure 5). The quantitative analysis results show a strong trend in increased frequency in floral purchases as participants aged. Previous studies suggest this is due to decreased importance of material items (Roberts et al. 2000) and greater enjoyment of gardening and garden like experiences as people age (Behe et al. 2003; Dennis and Behe, 2007). Promoting and educating consumers about floral gifts being great gifts for all occasions and reasons has potential to improve sales.

Correlated to greater gardening experience and enjoyment, the results for the number of participants that could name their favorite flowers was statistically significant ($p=0.0682$) at 89 % for both Generations XY and XX versus 71 % in Generation Y. Similarly, 83 % of the flowers Generation XX named were garden or landscape flowers in the Midwest (such as roses, tulips, irises and daisies), whereas 77 % of the flowers Generation Y

named were garden or landscape types demonstrating lack of experience and exposure to different flower types.

Personality reflection.

In the questionnaire, participants were asked how much the different gifts reflected their personalities. The mixed ordered probit model estimation results revealed that Generation Y participants felt fresh cut flowers did not reflect their personalities (coefficient was 0.29) as much as other products and plants reflected their personalities even less (Table 2). However, CD/DVD/books' coefficients were significantly higher at 0.90 for this generation than XX at 0.16 or XY at -0.38 indicating that Generation Y participants felt these gifts reflected their personalities the best out of all the gift options and generations (Table 2). Similarly, results indicate that Generation XY felt blooming plants marginally reflected their personality because plants were comparable to many of the other gifts whereas Generation XX felt plants did reflect their personality the best which was indicated by the negative coefficients of other gifts (Table 2). Consumers tend to buy and give gifts that reflect their personalities, as a result, Generations XY and Y do not give cut flowers or plants as frequently as Generation XX (Figures 3, 4, and 5).

Generation XX participants like flowering potted plants, so by continuing to supply high quality flowering potted plants, this group will remain loyal. However, Generations XY and Y are less interested in flowering plants due to the increased responsibility. That is, the receiver has to take care of the plant or potentially feel guilty that it died. As a result, these individuals prefer fresh cut flowers to plants. The industry can develop unique cut

flower arrangements to attract these two groups and add pairings to improve gift personality reflection. Younger generations want to express themselves but still get the receiver a nice gift. Therefore, by improving the uniqueness and available pairings, floral gifts will be perceived to be more trendy. Additionally, breeding and promoting low-maintenance plants with easy care instructions can inspire the younger generations to try them making the experience a positive and educational one.

Perception of market price

Mixed ordered probit analysis was used to analyze participants' perception of market price of different gifts (Table 3.) The food/candy gift was used as a base for the estimation. A smaller coefficient for the product indicates perceived market prices to be more reasonable and vice versa. For Generation Y, a CD/DVD/book had the highest coefficient at 0.85, followed by flowers at 0.81, wine at 0.03, food/candy at 0, and gift cards at -0.66 with all being significant except wine (Table 3). As previously mentioned in the Generation Y personality reflection, Generation Y placed cut flowers fourth behind CD/DVD/book, gift cards, and food/candy (Table 2) which combined with high market price decreases the gift's value for this generation. For Generation XY, the CD/DVD/book had the highest coefficient at 0.79, flowers = 0.74, wine = 0.41, and gift cards = -0.71; all were significant (Table 3). Food/candy was used as for comparison purposes. Finally, for Generation XX, CD/DVD/books had the highest coefficient with 0.50, flowers and wine at 0.43, and gift cards at -0.84 with all being significant (Table 3).

Overall, the flower gift's price was perceived to be the second highest behind CD/DVD/books for all generations. The floral industry can implement several techniques to give the impression of greater value for money spent.

First, they can create pairings to improve value for each generation by looking at other gifts each group likes to give. For example, for Generation Y, floral gifts could be paired with CD/DVD/books or gift cards to increase value. Then for Generation XY, pair floral gifts with gift cards and for Generation XX, no pairing is needed but give the option to pair floral gifts with gift cards. Additionally, locating florists' shops near other gift stores and offering coupons increases the ease of pairing. Also, offer different bouquet sizes at different prices so consumers have more control over the cost of the gift like they do with gift cards.

Perception of ease of purchase.

Mixed ordered probit analysis was also used to analyze the perception of the ease of purchase results. Food/candy gifts were used as the base for estimation. A smaller coefficient of a product indicates consumers perceive the product to be easier to purchase than food/candy and a larger coefficient of a product indicates consumers perceive the product to be more difficult to purchase than food/candy. Generation Y participants felt wine was the most difficult to obtain with a coefficient of 0.84, followed by flowers at 0.74, CD/DVD/book at 0.41, and then gift cards at -0.72 (Table 4). Based on p-values, all of these results were significant. Generation XY indicated that wine was the most difficult with a coefficient at 0.73, then CD/DVD/book at 0.57, flowers at 0.48, and gift

cards at -1.04 (Table 4). These results were also significant. Finally, Generation XX felt wine was the most difficult with a coefficient at 0.71, followed closely by CD/DVD/book at 0.70, flowers and food/candy were comparable and then gift cards at -0.62 (Table 4). Except for flowers (p-value=0.215), all of the results were significantly different from food/candy (wine p-value=0.000, CD/DVD/book p-value=0.000, gift cards p-value=0.003).

The perception of 'ease of purchase estimation' results indicate that as people age they feel it is easier to purchase fresh flowers as gifts and more difficult to purchase CD/DVD/books as gifts. However, for the younger generations pairing flowers with CD/DVD/books or gift cards may increase use of floral gifts. Additionally, the industry can launch an educational marketing campaign to increase awareness and knowledge of floral gifts and locations of florists. By promoting the product and where it is located, people will feel more confident in their abilities to find and select the right gift. Also florists can display clear signage and an inviting store exterior to draw in more foot traffic and increase sales. Additionally, florists can host events that the different age groups are interested in such as live music and flower design classes for reasonable prices to attract more foot traffic.

Frequency of advertising

Participants were asked how often they see advertising for gifts. Mixed ordered probit analysis was used to analyze the advertising data with food/candy being the base for estimation. A smaller coefficient of a product indicates consumers see advertisements of

the product more frequently than food/candy and a larger coefficient of a product indicates consumers see the product advertisement less frequently than food/candy. For Generation Y, the coefficient of flowers was 1.96, followed by wine at 1.81, gift card at 1.02, and then CD/DVD/books were not significantly different from food/candy (p-values: wine=0.000, flowers=0.000, gift cards=0.000, CD/DVD/book p-value=0.687) (Table 5). For Generation XY, the coefficient of flowers was 1.99, then wine at 1.92, gift cards at 0.54, and CD/DVD/book at 0.45 (p-values: wine= 0.000, flowers=0.000, CD/DVD/book=0.041, gift cards=0.014)(Table 5). For Generation XX, the coefficient of flowers was 1.22, then wine at 0.95, gift cards at 0.69, and CD/DVD/books were marginally significantly different at 0.31 from food/candy (p-values: wine=0.000, flowers=0.000, CD/DVD/book=0.070, gift cards=0.000) (Table 5). All participants agreed that they saw advertisements for flowers the least, with Generations Y and XY observing significantly fewer floral ads than Generation XX (Table 5), which results in the younger generations perceiving flowers as more difficult to obtain than other gifts (Table 4) and decreased use of floral gifts in Generations Y and XY (Figures 3 and 4). Conversely, food/candy ads were seen the most frequently resulting in increased ease of purchase (Table 4).

Generation Y observed significantly more CD/DVD/book ads than Generations XY and XX, meaning Generation Y is more aware of where to purchase CD/DVD/books from and use them as gifts more frequently (Table 4). Generations XY and Y saw significantly less advertisements for wine than Generation XX.

The results for advertising frequency indicate that Generation Y feels CD/DVD/book gifts are brought to their attention more via advertising resulting in these items being purchased more frequently than other items. This group also felt flowers were not advertised as much resulting in less frequent purchases. Generations XX and XY viewed more floral advertisements and less CD/DVD/book advertisements resulting in greater confidence in locating and choosing the correct floral gift and lack of confidence in choosing a CD/DVD/book gift. These results show that the advertising for floral products needs to be restructured toward specific age groups to improve their visibility and effectiveness.

All groups mentioned funny, clever ads with good looking people were easiest to remember. TV and Internet ads are the most often viewed, but not often remembered. A little creativity goes a long way. By running ad campaigns year-round that are structured to be funny, professional, and original, more people will remember the company/product ultimately increasing sales. Many people pay the most attention to reputation and buzz. To develop positive word-of-mouth advertising, florists can offer excellent services, high quality products, and product guarantees. Florists can stand behind the product to improve customer confidence. The industry can develop professional ads and in-store displays with information available on creative pairings and floral symbolism. Stores can promote sales and discount programs and showcase unique, fun flowers that are available at the shop. To reach Generation Y, the industry can advertise in areas and stores they hang out at as well as on Facebook, YouTube, and Twitter.

Actions that increase likelihood of purchasing floral products

Participants were asked to rate different options on whether implementing them would increase their likelihood of purchasing floral products. Of 28 original options, participants rated 19 greater than 4 (on a 1 to 7 Likert scale) indicating the actions would improve their likelihood of purchase (Figure 6). Options closer to a rating of 7 have greater impact on purchasing decisions than those closer to 4. Special discounts and sales increase likelihood the most at 5.76, followed by greater longevity at 5.67, more price ranges 5.63, and unique flowers/arrangements being available at 5.25 (Figure 6). The qualitative analysis supported these quantitative results because participants mentioned wanting sales/discounts, greater bloom longevity, more ranges in available sizes/prices, and uniqueness in arrangements. The following options had some impact, but not as much as the previous options. Participants valued flowers having interesting shapes at 4.95, flowers being trendy/fashionable at 4.89, a customization option at 4.90, unique packaging at 4.84, a gift card pairing option at 4.84, other gift pairings at 4.71, food/candy pairings at 4.64, pre-made at 4.57, and availability at often visited locations/websites at 4.57 (Figure 6). The following options had impact, but not as much as the previous two groups. Participants rated fashionable packaging at 4.49, easy to carry packaging at 4.48, locally grown flowers at 4.45, wine pairings at 4.40, environmentally-friendly packaging at 4.19, and CD/DVD/book pairings at 4.08 (Figure 6.) Qualitative analysis results showed that the packaging should not detract from fresh flowers or cheapen the gift. Participants felt pairings improved gift longevity, practicality and uniqueness. Participants from Generation Y felt pre-made was the best option due to lack

of creativity and knowledge about what goes best together. Similarly, this group felt having flowers available where they hang out would improve sales.

Overall, participants were more aware of price, flower or plant longevity, and available uniqueness in floral products when making purchasing decisions. But they were also aware of packaging, trendiness, pairings, and local production when making decisions. As a result, each of these items represents a potential area for improvement among members of the floral industry. Advertising sales and developing fun discount/loyalty programs could attract new customers to try floral products and enter floral stores. The industry can develop an expected longevity chart showing different flowers' expected longevity to alleviate post-purchase dissatisfaction by increasing knowledge about reasonable expectations. The industry can develop a line of locally produced flowers so customers feel good about helping the local economy would have the opportunity to purchase locally grown flowers. Floral stores can provide new, trendy bouquets and packaging/vases at different price ranges to improve sales among the trendy younger generations who are sensitive to prices. Additionally, florists can pair floral products with other gifts that the targeted generations purchase more frequently.

Conclusion

To assist the floral industry in rejuvenating demand for floral products, this article presents Generations XX, XY and Y consumers' views on floral products including: Attitudes towards floral products, spending limits on gifts and floral gifts, purchasing

frequency of floral products, consumer flower knowledge, gift personality reflection, perceived market price, ease of gift purchase, gift advertising frequency, and characteristics consumers view as important when making purchasing decisions. Quantitative and qualitative data were collected and analyzed through the mixed order probit model to investigate differences between generations in gift choice and preference.

The results of the study indicate that flowers are special gifts for all generations with Generation Y having some reservations about recipient enjoyment and cost of the gift. Great potential exists to position fresh flowers and flowering potted plants as a safe yet surprising birthday gift. Educational marketing could overcome some of their reservations and increase use of floral gifts, thereby increasing overall floral sales, hopefully at a profit. Most participants spent the most on birthday gifts, again making this event an ideal target to increase sales across the calendar year. Even though the upper spending limit on floral gifts were lower than on gifts in general, stimulating 2% of the U.S. population (240 million) (or 13,150 consumers) to buy \$10 of birthday flowers every day could result in an increase of \$131,000 per day or nearly \$500,000 per year.

The results for personality reflection of different gifts, perceptions of market price, ease of purchase, and advertising indicate that Generation Y feels flowers are high priced, more difficult to obtain, and not advertised enough resulting in their purchasing floral products less frequently than other gift items. Cut flowers are considered expensive but do not reflect the gift giver's personality as well as other gifts, which decreases their gift value in the Generation Y gift giver's mind. For CD/DVD/book, despite the high

perceived price, these gifts are perceived as reflecting the gift giver's personality the best for this generation. Generations XX and XY placed more value on flowers indicating greater confidence in choosing the correct floral gift. Overall, participants noticed prices but were willing to pay more for gifts that reflect their personality and knowledge of the receivers' preferences. These findings are consistent with earlier studies (Teigen, et al. 2005; and Robben et al. 1994). Restructuring memorable advertising campaigns toward specific age groups using media they are often exposed to can bring floral gifts into their scope when searching for gifts.

Additional actions can be implemented to improve the likelihood of using floral gifts such as sales promotions, proven longevity, more price ranges, and more unique/trendy flowers and packaging. Combining these elements with pairings with other products has potential to improve demand for floral gifts.

Overall, Generation XX had the most positive attitude about floral gifts, Generation Y was the most negative, and Generation XY was in the middle. By tailoring the marketing mixes toward each age segment, floral products can be shifted from the mature stage to the growth stage resulting in greater demand, sales and profits.

Tables and Figures

Table 1. Summary statistics of the sample of 216 respondents that participated in floral-related focus group experiments conducted in Michigan and Minnesota in 2009.

Variable	Description of Variables	Generation ^z	Mean	SD
Education	Highest level of education participants completed 1= Some high school or less 2= High school diploma 3= Some college 4= College diploma 5= Some graduate school 6= Graduate degree	Y	3.61	1.14
		XY	3.85	1.25
		XX	3.80	1.18
Gender	Gender of participant 1= male (36% of total) 0= female (64% of total)	Y	0.46	0.50
		XY	0.35	0.48
		XX	0.27	0.44
Relationship	Marital status of participant 0= married/in a relationship 1=no relationship	Y	0.45	0.50
		XY	0.35	0.48
		XX	0.26	0.46
Household	Number of people in household	Y	2.33	1.50
		XY	3.27	1.59
		XX	2.84	1.24
Income	Income of participants (\$1000)	Y	39.71	32.22
		XY	54.36	29.73
		XX	61.36	28.19

^zIn this study, Generation X and Y were divided into more precise age cohorts to discover differences between the groups including: Generation XX (41-50 year olds), Generation XY (31-40 year olds), and Generation Y (less than 30 years old).

Table 2. Mixed ordered probit model estimates indicating of how much the listed gifts reflect participants' personalities as the gift giver. (Higher coefficient =Reflects personality).

Variable (α_j)	Generation Y (n=88)		Generation XY (n=54)		Generation XX (n=84)	
	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Wine	0.21	0.16	0.10	0.20	-0.88***	0.18
Cutflower	0.29*	0.16	0.25	0.20	-0.01	0.18
CD/DVD/Book	0.90***	0.17	0.16	0.20	-0.38**	0.17
Giftcard	0.52***	0.16	0.37*	0.21	-0.16	0.17
Food/Candy	0.46***	0.16	0.24	0.20	-0.32*	0.17
Plant	----	----	----	----	----	----
Socio-demographic Variable (β_j)						
Education	0.05	0.05	0.03	0.07	0.07	0.06
Gender	-0.03	0.05	-0.02	0.07	-0.19***	0.07
Marriage	-0.01	0.05	-0.18**	0.07	0.08	0.08
Household size	0.12**	0.06	0.14**	0.06	-0.16*	0.09
Income	0.01	0.05	-0.15*	0.09	-0.02	0.08
u_1	-0.79***	0.12	-1.19***	0.17	-1.73***	0.16
u_2	-0.43***	0.12	-0.83***	0.16	-1.38***	0.15
u_3	0.09	0.12	-0.30*	0.15	-0.87***	0.14
u_4	0.79***	0.12	0.47***	0.15	-0.07	0.13
u_5	2.63***	0.18	2.56***	0.25	2.84***	0.34
Random Individual effect						
	0.00		0.22		1.98**	
	<0.01***	<0.05**	<0.10*			

a. The ---- denotes that the “plant” variable was dropped as a comparison variable. Positive coefficients indicate that the gift reflects the giver’s personality more than plants. Negative coefficients indicate that the gift reflects the giver’s personality less than plants.

b. The log likelihood value for the ordered probit is -788.12 for Generation Y, -472.44 for Generation XY, and -667.36 for Generation XX. The log likelihood ratio test statistic is 41.48 for Generation Y, 19.38 for Generation XY, and 44.33 for Generation XX. The p-value is <0.001 for Generations Y and XX, and <0.05 for Generation XY. The log likelihood ratio test between the mixed ordered probit model and ordered probit model showed significant differences between the models for Generation XX (p-value <0.01) but no significant differences for Generations Y and XY.

Table 3. Mixed ordered probit model estimates indicating how reasonable participants think the market price is for the listed items. (Higher coefficient = More unreasonable).

Variable (α_j)	Generation Y		Generation XY		Generation XX	
	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Wine	0.03	0.17	0.41*	0.22	0.43**	0.17
Flowers	0.81***	0.17	0.74***	0.22	0.43**	0.17
CD/DVD/Book	0.85***	0.17	0.79***	0.22	0.50***	0.18
Giftcard	-0.66***	0.17	-0.71***	0.23	-0.84***	0.18
Food/Candy	----	----	----	----	----	----
Socio-demographic Variable (β_j)						
Education	-0.07	0.09	-0.02	0.15	0.16	0.10
Gender	-0.01	0.08	0.12	0.13	0.08	0.11
Marriage	0.16**	0.08	-0.33**	0.15	-0.03	0.12
Household size	0.02	0.10	-0.10	0.13	0.17	0.14
Income	-0.08	0.09	0.41**	0.18	-0.07	0.12
u_1	-1.10***	0.15	-1.11***	0.21	-1.41***	0.17
u_2	0.48***	0.14	0.81***	0.21	0.54***	0.16
u_3	1.50***	0.16	1.84***	0.23	1.66***	0.18
u_4	3.38***	0.32	----	----	2.91***	0.26
u_5	----	----	----	----	----	----
Random Individual effect						
	2.91***		2.91***		3.46***	
	<0.01***	<0.05**	<0.10*			

a. The ---- denotes that the “food/candy” variable was dropped as a comparison variable. Positive coefficients indicate that the gift has a less reasonable market price than food/candy. Negative coefficients indicate that the gift has a more reasonable market price than food/candy.

b. The log likelihood value for the ordered probit is -517.71 for Generation Y, -312.89 for Generation XY, and -488.11 for Generation XX. The log likelihood ratio test statistic is 92.73 for Generation Y, 61.43 for Generation XY, and 64.04 for Generation XX. The p-value is <0.001 for all of the generations. The log likelihood ratio test between the mixed ordered probit model and ordered probit model showed significant differences between the models for all generations (p-value <0.0005).

Table 4. Mixed ordered probit model estimates for respondents in each age segment indicating how easy it was for them to purchase the gifts. (Higher coefficient = More difficult).

Variable (α_j)	Generation Y		Generation XY		Generation XX	
	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Wine	0.84***	0.18	0.73***	0.23	0.71***	0.19
Flowers	0.74***	0.17	0.48**	0.22	0.23	0.19
CD/DVD/Book	0.41**	0.18	0.57**	0.23	0.70***	0.19
Giftcard	-0.72***	0.20	-1.04***	0.27	-0.62***	0.21
Food/Candy	----	----	----	----	----	----
Socio-demographic Variable (β_j)						
Education	0.02	0.10	-0.19	0.15	0.01	0.12
Gender	0.19**	0.08	-0.04	0.14	-0.02	0.13
Marriage	0.20**	0.11	0.05	0.16	0.08	0.15
Household size	0.21*	0.11	-0.08	0.13	-0.24	0.16
Income	-0.11	0.10	0.12	0.18	0.10	0.15
u_1	-0.002	0.15	0.13	0.21	0.18	0.18
u_2	1.10***	0.16	1.20***	0.22	1.57***	0.20
u_3	1.88***	0.18	2.04***	0.25	2.25***	0.22
u_4	2.88***	0.23	3.59***	0.44	3.37***	0.30
u_5	----	----	----	----	----	----
Random Individual effect						
	3.08***		2.57***		3.59***	
	<0.01***	<0.05**	<0.10*			

a. The ---- denotes that the “food/candy” variable was dropped as a comparison variable. Positive coefficients indicate that the gift is more difficult to purchase than food/candy. Negative coefficients indicate that the gift is easier to purchase than food/candy.

b. The log likelihood value for the ordered probit is -515.68 for Generation Y, -309.04 for Generation XY, and -473.39 for Generation XX. The log likelihood ratio test statistic is 98.27 for Generation Y, 47.62 for Generation XY, and 45.36 for Generation XX. The p-value is <0.001 for all of the generations. The log likelihood ratio test between the mixed ordered probit model and ordered probit model showed significant differences between the models for all generations (p-value <0.0005).

Table 5. Frequency of advertisements that respondents saw for different gifts. (Higher coefficient = Less frequent).

Variable (α_j)	Generation Y		Generation XY		Generation XX	
	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Wine	1.81***	0.18	1.92***	0.24	0.95***	0.17
Flowers	1.96***	0.19	1.99***	0.24	1.22***	0.18
CD/DVD/Book	0.07	0.18	0.45**	0.22	0.31*	0.17
Giftcard	1.02***	0.17	0.54**	0.22	0.69***	0.17
Food/Candy	----	----	----	----	----	----
Socio-demographic Variable (β_j)						
Education	-0.11*	0.07	0.11	0.11	0.08	0.08
Gender	-0.003	0.06	0.17*	0.10	-0.14	0.09
Marriage	0.09	0.06	-0.10	0.11	0.01	0.10
Household size	-0.08	0.08	0.04	0.10	0.15	0.11
Income	-0.04	0.07	0.19	0.13	0.12	0.10
u_1	0.19	0.14	0.14	0.18	-0.28**	0.14
u_2	1.08***	0.15	1.06***	0.19	0.77***	0.15
u_3	2.18***	0.17	2.47***	0.23	1.98***	0.17
u_4	3.29***	0.20	4.03***	0.34	3.21***	0.23
u_5	----	----	----	----	----	----
Random Individual effect						
	1.02		2.15**		2.74***	
	<0.01***	<0.05**	<0.10*			

a. The ---- denotes that the “food/candy” variable was dropped as a comparison variable. Positive coefficients indicate that the participant saw less advertisements for the gift than for food/candy. Negative coefficients indicate that the participant saw more advertisements for the gift than for food/candy.

b. The log likelihood value for the ordered probit is -532.19 for Generation Y, -326.68 for Generation XY, and -543.71 for Generation XX. The log likelihood ratio test statistic is 119 for Generation Y, 116.72 for Generation XY, and 70.37 for Generation XX. The p-value is <0.001 for all of the generations. The log likelihood ratio test between the mixed ordered probit model and ordered probit model showed significant differences between the models for Generations XY and XX (p-value <0.001) but not for Generation Y.

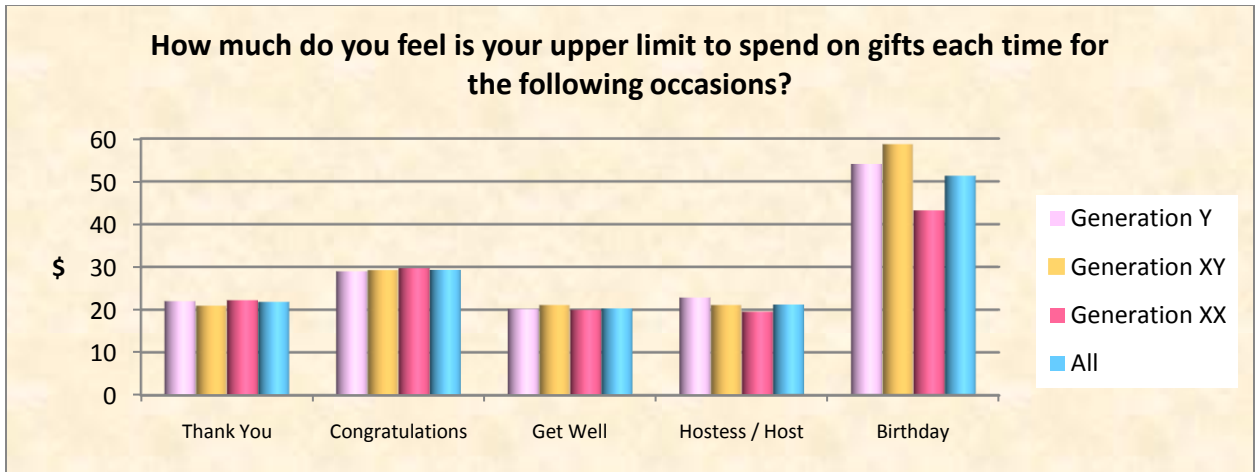


Figure 1. Upper spending limit on gifts by occasion.

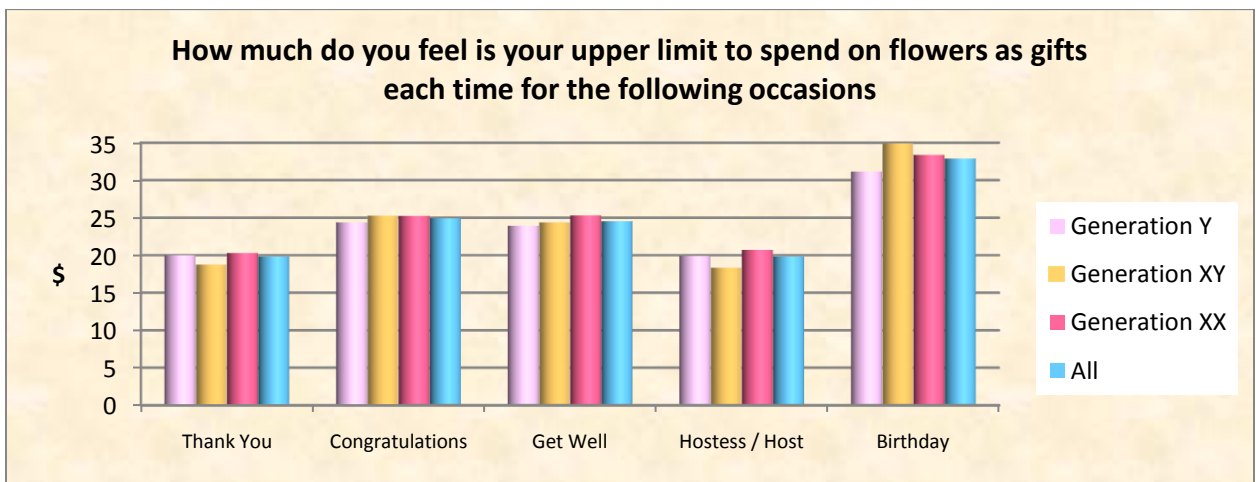


Figure 2. Upper spending limit on flowers by occasion.

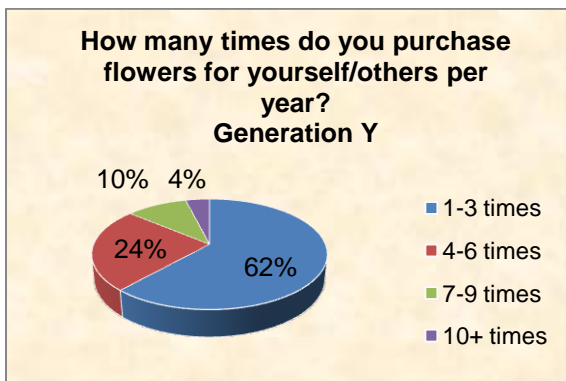


Figure 3. Flower purchasing frequency for Generation Y.

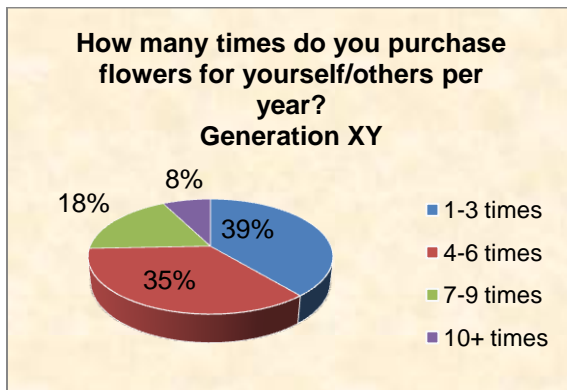


Figure 4. Flower purchasing frequency for Generation XY.

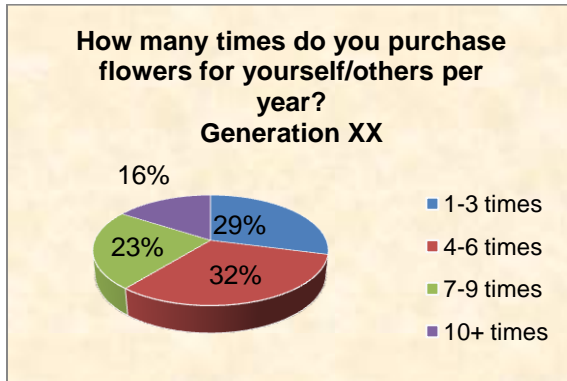


Figure 5. Flower purchasing frequency for Generation XX.

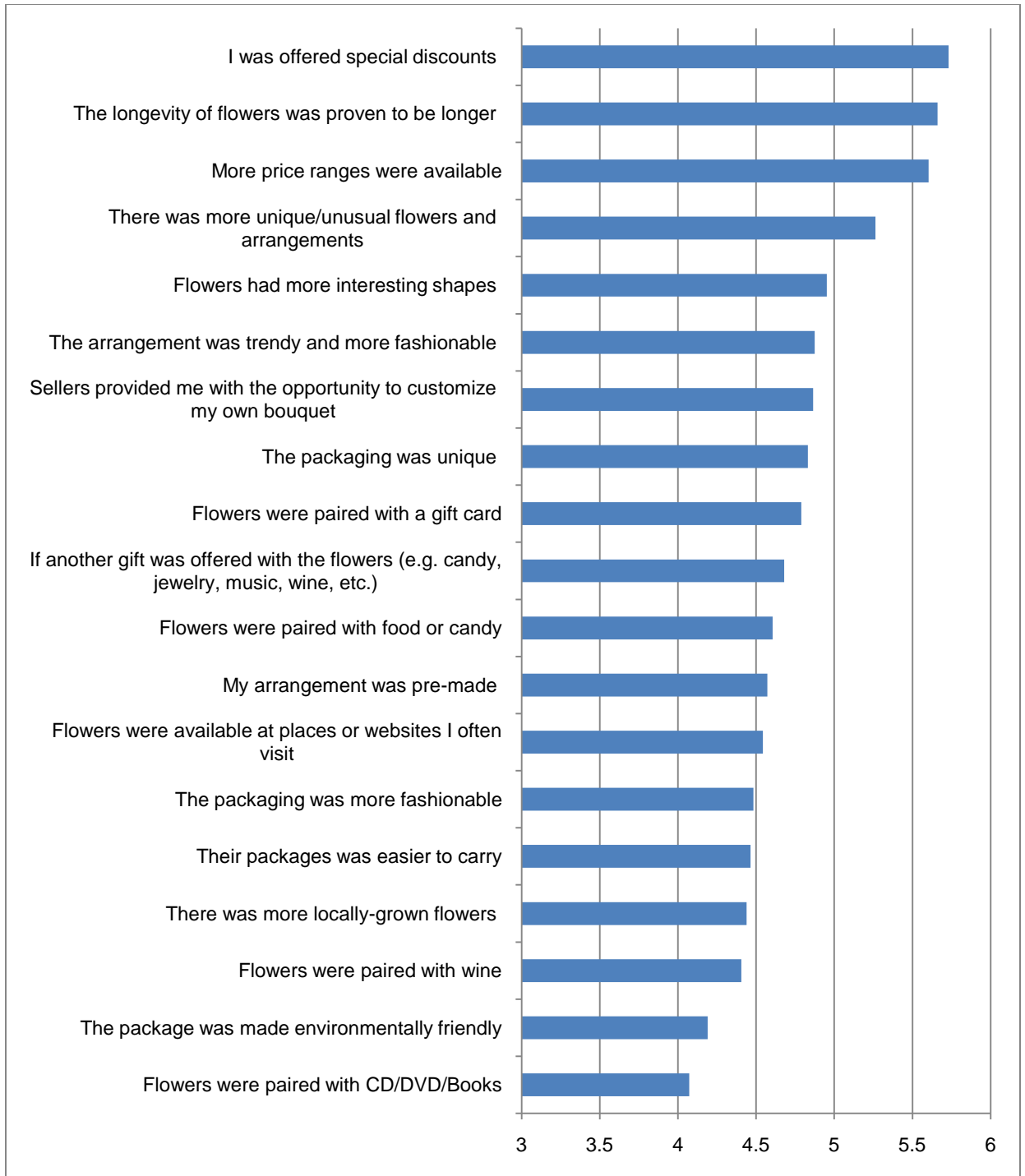


Figure 6. Frequency of actions or options that would increase participants' likelihood of purchasing flowers as gifts. (1=extremely unlikely, 7=extremely likely).

CHAPTER 2: Floral gift appreciation, impressiveness, and risk perception by consumers in Generations X and Y

Overview

Determining consumers' preferences and imagery connected to floral product gift purchases is very important for floral industry stakeholders because it helps them develop more effective marketing strategies to promote and sell their products. A decreasing trend in floral sales has sparked interest in pursuing the use of floral products as gifts for occasions other than known calendar holidays (i.e. Valentine's Day, Mother's Day, Easter, and Christmas). However, studies of consumers' perceptions of floral gifts are limited. The objective of this study was to investigate consumer perceptions of gifts, especially cut flowers, with the intention to help the floral industry improve sales through the increased use of floral products as gifts by potential consumers in Generations XX, XY and Y. Specific areas of interest included the frequency of gift purchasing, where ideas for gift giving comes from (resources), levels of appreciation for alternative gifts, the relative impressiveness of various gifts, and the risks associated with gift giving. We combined a questionnaire and focus group discussions to investigate three age groups of consumers and their preferences for cut flowers and potted plants as gifts. Participants were given several other gift choices for comparison purposes. We found that birthdays had the most frequent gift purchases and the major sources of gift giving ideas were primarily from family and friends and merchandise/in store displays with additional sources varying among different age groups. Additionally, cut flowers were appreciated

more and perceived as more impressive and less risky than potted plants due to reduced care requirements. Furthermore, cut flowers were second to gift cards in all three areas indicating floral product-gift card pairings would increase use of floral products as gifts. The findings of the research have important implications for florists and floral industry stakeholders when making marketing, production and advertising decisions related to each age group.

Introduction

Historically, floral gifts have been used for a sundry of reasons across multiple cultures. For example, flower and plant parts were found in Egyptian tombs and pyramids from as early as 2800BC, and ancient writings indicate that they were used in religious ceremonies as décor and personal adornment (King, 2007). In Rome and Greece, wreaths and garlands were used as crowns for heroes and to decorate statues (King, 2007). Additionally, Roman guests were crowned and draped with flowers in welcome (King, 2007). In the 1600s Turkish lovers secretly communicated through small bouquets called tussie-mussies (Gelfand, 2002). Chinese, Greeks, Aztecs, Celts and Japanese had different meanings associated with floral gifts as well (Gelfand, 2002).

During the Renaissance (1400-1600 AD) large vases with tall floral arrangements became popular and architects developed building designs placing these arrangements throughout the buildings (King, 2007). Similarly, decorating a buffet table with flowers was popular (King, 2007). In addition to being used for occasions of celebration, flowers

were used as gifts for illness and death due to their aroma masking the smell in pre-embalming times (Seaton, 1995).

Giving flowers during courtship became very elaborate during the 1800s, with hand-held bouquets being the most popular (Seaton, 1995). Elizabethian English society began using the language of flowers; however, Victorian France and England increased the popularity and social acceptance of using the language of flowers to express sentiments which caught on due to strict etiquette restrictions on suppressing emotions (Gelfand, 2002; Seaton, 1995). The modern language of flowers originated in Constantinople (Gelfand, 2002) with female recipients in mind (Seaton, 1995). Often the sentiments of flowers are closely entwined with love and death, both of which were considered more feminine because women's goals often revolved around marriage and children, and children often brought about death for the mother or child (Seaton, 1995). In America, flowers became fashionable in the 19th century when European styles increased in popularity (King, 2007).

More recent studies show flowers are still used frequently for sympathy gifts and to encourage healing (Scammon et al., 1982), comfort survivors, and show respect for the dead (Shoemaker et al., 1994). Additionally, people who purchase flowers infrequently tend to purchase them on impulse for gifts (Scammon et al., 1982). However, recent research suggests the demand for floral gifts and products is decreasing compared to several years ago, particularly among younger consumers (AFE, 2008) indicating that floral products may be nearing the maturity stage of the product life cycle (AFE, 2008;

Burke, 2007). Generation X is defined as 44 million people born between 1965 and 1976 (Dunn, 1993). Generation Y is defined as 71 million people born to Baby Boomers between 1977 and 1994 (Paul, 2001, Morton, 2002). Based on this information, the current study explores the possibility of increasing the use of floral products as gifts by consumers in the age classification of Generations X and Y in order to attract new consumers to the marketplace.

Promoting floral products as gifts to consumers in Generations X and Y can potentially lead to increased floral demand and sales. Successful gift giving occurs when the giver takes the receiver's preferences into account and purchases a gift s/he wants (Teigen et al., 2005; Parsons, 2002); however, most gifts are selected due to either exclusiveness or usefulness (Teigen et al., 2005). Additionally, giving an impressive gift is important because givers feel the gift should leave a lasting, favorable impression (Teigen et al., 2005). Gifts that are not memorable or favorable do not reflect well on the gift giver and may potentially damage his or her social relationship with the receiver. The more time a giver spends on gift selection, the greater the receiver's satisfaction is likely to be (Robben et al., 1994).

Gift giving often is motivated by obligation or is voluntary to express sentiments (Goodwin et al., 1990) such as collaboration (Buolle, 2001), attractiveness, devotion, social relationships (Huang et al., 2000), and intentions and attitudes in relationships (Burgoyne, 1999). Obligation gifts tend to occur between casual friends and coworkers

whereas voluntary gifting occurs between close friends to communicate emotions (Goodwin et al., 1990).

Previous research shows gift selection and reception may be accompanied with high levels of anxiety for the giver due to social anxiety (Sherry et al., 1993). For example, unsuitable gifts cause embarrassment, threaten social ties, and leave long-term negative impressions (Sherry et al., 1993; Teigen et al., 2005). Research has shown gifts can alter relationships (Ruth et al., 1999) resulting in gift selection being important and different for close versus casual relationships (Parsons, 2002). A supporting study found that giving a gift to the opposite sex is riskier due to greater intensity of feelings behind the gift (Gould et al., 1991). With social distinctions being the most important characteristic of gift giving (Giesler, 2006), most anxiety over gift giving stems from placing high interpersonal stakes on recipient responses and the gift's effect on social relationships (Wooten, 2000). Simple mistakes over recipient preferences and poor recipient reactions cause givers great concern (Belk, 1976). Additionally, opening gifts publically magnifies anxiety about gift representation and value comparisons between other gifts (Wooten, 2000). Overall, gift anxiety can be greatly decreased by being confident about the receiver's preferences (Wooten, 2000; Belk, 1976).

Promoting floral products as gifts given for a variety of reasons and at non-calendar holidays could increase demand for floral products within Generations X and Y making it imperative to understand the motivation behind the purchasing decision. The present study was designed to explore the imagery of recipient appreciation, gift impressiveness,

and gift risk associated with cut flowers and plants as gifts in order to promote floral products as gifts for people in Generations X and Y. The overall objective of this study was to discover ways to help the floral industry improve sales by increasing the use of floral products as gifts among consumers in Generations X and Y. Specifically we:

- 1) Determined consumers in Generations X and Y's frequency of gift purchases by occasion to incorporate the most profitable occasions into the current industry marketing strategies,
- 2) Discovered the most frequently used gift idea resources for consumers in Generations X and Y to better position floral products as gift options,
- 3) Explored differences of gift perception, impressiveness and risk among consumers of different age groups to determine the best marketing techniques to reach them.

The results of this research are important to florists, flower producers, and other marketing intermediaries that sell fresh floral products by improving floral gift use and marketability of the products. This study also contributes to the literature on consumers' floral purchase decision making processes and use of floral gifts compared to other competing gifts of similar prices.

Materials and Methods

The study was conducted on April 18th and April 25th, 2009, at the University of Minnesota, and June 26th and June 27th, 2009, at Michigan State University. The same questionnaire used in Chapter 1 was used to gather data for this study; meaning, that the materials and methods, sample distribution, sample summary, and econometric models are the same for both studies. For specific details please refer back to Chapter 1 and the Appendix. Specific differences between the studies included the following:

Questionnaire. Each questionnaire consisted of questions concerning purchasing behaviors, attitudes towards gifts, flowers as gifts, gift risk and relationships, gifts personality reflection, gift practicality, gifts by occasion, and socio-demographics. For example, questions in the questionnaire included: How much do you personally like receiving different types of gifts (wine, cut flowers, CD/DVD/book, gift cards, plants, and food/candy)? How impressed are you by receiving the gifts? In a close relationship with your gift recipient, how risky is it to give the gifts? In a casual relationship, how risky is it to give the gifts? How frequently did you purchase gifts in the past year? How frequently did you purchase floral gifts in the past year? For complete questions, question format, and possible answer choices, see Appendix.

Focus groups. Predetermined questions included: Do you purchase flowers/plants? What are the main weaknesses in floral gifts? Where do you buy floral products from and why? What impresses you about services/products that draw you back to a store? When are floral gifts appropriate and why?

Econometric model. We used a mixed order probit model to analyze consumers' opinion or attitudinal data. For specifics, see Chapter 1 and Appendix.

Results and Discussion

Summary statistics

Although the summary statistics are the same for both studies, it is important to note the relationship statistic - not married, nor in a relationship, Generation Y at 45%, Generation XY at 35% and Generation XX at 26% (Table 1) - for this study because not being in a relationship may influence gift and floral gift purchases due to not having a romantic partner.

Gift purchasing frequency

Gift purchasing frequency by occasion was studied to determine the occasions where gifts were given the most often. This information can then be used to alter the marketing mix to target the most profitable occasions. All groups gave gifts for birthdays the most frequently, averaging 10.05 gifts per year (Figure 7). This is due to birthdays occurring frequently since everyone has a birthday once a year and it is customary in the U.S. to give birthday gifts to friends, family and acquaintances. By giving birthday gifts, givers are able to reinforce their social relationship with the receiver. Thank you and congratulations occasions had the second highest frequency averaging 3.64 times per year (Figure 7). Next, host/hostess occasions averaged 2.63 times per year and finally get well occasions averaged 2.23 times per year (p-values: thank you=0.0153, congratulations=0.0131, get well=0.0190, host/hostess= <0.0001, birthday=<0.0001)

(Figure 7). These findings are significant and indicate that birthday gifts may be a highly-profitable and frequent non-calendar occasion for which flowers may be highly appropriate.

Participants in Generation Y consistently gave fewer gifts than participants in either of the older generations (Figure 7). These results are generally due to older participants having greater income and more thoughtfulness and tolerance of their friends (Fox et al., 1985). For example, congratulations gifts were second behind birthdays with 4.83 gifts per year (Figure 7). Participants in this age group have children, nieces and nephews graduating and they may feel obligated to send gifts. Gifts strengthen social relationships meaning it is important for older generations, who have multiple social relationships, to give gifts (Sherry, 1983). Similarly, Generation Y placed thank you gifts second at 2.84 gifts per year (Figure 7). These results are supported by this group's stage in life, they are sending thank you gifts for events such as graduation, job searches and marriage.

Many focus group participants felt flowers are suitable for funerals, thank you, and get well gifts. With birthdays being the primary gifting occasion, the floral industry can increase floral demand and sales by educating consumers about the suitability of floral gifts for all occasions, especially birthdays. In a market of 100,000 people, at least 273 birthdays are likely to occur every day. Participants also mentioned floral gifts are "generic, traditional" gifts. To counter these stereotypes, floral gifts can be promoted as fun, unique gifts and be paired with gifts that are perceived as more suitable among the different age groups in order to improve acceptance. Advertisements promoting floral

gifts' health benefits and their facilitation of cheer and relaxation in one's home can be used to enhance floral gifts' practicality. Recent Harvard University research showed that flowers make the recipient smile more. The industry can also market fun, unique arrangements to counter the "generic gift" image and to generate demand for floral gifts for other occasions.

Gift idea resources

In addition to gift frequency, knowing where people obtain their gift ideas is advantageous because the industry can position floral products and advertisements to be more prominent. Greater exposure results in increased public awareness and potential use of floral products as gifts. The majority of participants (79%) obtained their gift ideas from asking friends and family or from merchandise or in-store displays, with displays being marginally significant for consumers in Generation XY at 75% (Table 2). These results are supported by previous studies where giving the receiver something he or she wants is the most important decision making factor and friends/family will know the receiver's preferences (Teigen et al., 2005; Parsons, 2002). Additionally, the receiver may mention something he or she wants and the giver is reminded of it when shopping and seeing in-store and merchandise displays.

Internet sources were next at 50% with participants in Generation Y using online sources more than either of the older generations at 59% (Table 6). These results indicate that younger consumers are more internet savvy and more comfortable with using it compared to older consumers. Television commercials were the next source of gift ideas at 34%,

followed by magazines at 23%, and newspapers at 20% (Table 6). For newspapers, participants in Generation XX used them the most frequently at 39%, then participants in Generation XY and Y were less at 18% and 3% (Table 6) indicating older consumers read and use print media more frequently than younger consumers.

Next “other” resources were also considered important at 18%, followed by radio at 13%, books at 9%, and billboards at 4% (Table 6). Participants in Generation XY did not use billboards at all for gift ideas.

Depending on the desired target market, the industry can use different forms of advertising. From these results it becomes apparent the floral industry needs to generate positive word of mouth advertising in order to increase sales. This can be accomplished through educational advertising demonstrating that floral gifts are appropriate for many occasions and many different types of people. By promoting the positive aspects of floral gifts and removing negative cultural and social taboos connected to floral gifts, more people will purchase flowers and plants for different occasions.

In addition to word-of-mouth advertising, florists need to develop attractive displays of merchandise within the stores so as people shop for gifts they are reminded of floral gifts and that they are acceptable gifts. Online advertisements are also an excellent way to reach a lot of people; however, focus group participants mentioned that online ads are easy to ignore and therefore need excellent visuals and humor to catch consumers’ attention. Pop-ups and banners are primarily ignored, so the industry can reduce these modes of advertising and develop Facebook and Twitter ads to reach Generation Y.

Participants also brought up that internet sites need to be high quality, high speed, and accessible from search engines. They felt the floral photos online tended to be low quality and cheap and information was not readily available. Additionally, florists need to stand behind their product with guarantees of quality and on time delivery to build positive relationships with consumers. Some participants felt having a “build your own” option would be a nice way to personalize bouquets and having a wall where comments from previous customers could be posted so potential customers know more about the quality standards of the company. If florists’ websites were professional, easy to use, offered guarantees, and were more customer oriented, more participants felt they would use them. Television commercials were another way to reach consumers; however, similar to online ads, participants felt commercials were easy to tune out. As a result, floral commercials need to incorporate humor in order to be remembered and used as gift sources. If the target market consists of consumers in Generation XX, newspaper and print ads are a good way to reach this group; however, these ads do not work as well for younger consumers.

Gift appreciation

An important aspect of gift giving is receiver appreciation. Giving the receiver something he or she likes is the most important gift attribute (Teigen et al., 2005; Parsons, 2002). To improve industry knowledge about receiver preferences, gift appreciation was studied among participants. Consumers in Generation Y, participants did not appreciate cut flowers as much as other gifts (Table 7). This generation of

consumers appreciated gift cards significantly more than any of the other products with a value of 1.28, followed by CD/DVD/books, and then food/candy (Table 7). Consumers in Generation XY appreciated gift cards more than the other gifts at 1.18, followed by food/candy, and then CD/DVD/book gifts (Table 7). For both groups, cut flowers, wine and plants were less appreciated than other gifts. These results indicate that consumers in Generations Y and XY enjoy practical, familiar gifts more than cut flowers, plants and wine.

For consumers in Generation XX, cut flowers, plants and gift cards were appreciated the most of all the gift options (Table 7). Food/candy gifts were appreciated less at -0.50, followed by CD/DVD/book gifts, and wine (Table 7). These results indicate that older consumers appreciate floral gifts more than other gift options, whereas younger consumers prefer other gifts. Previous research supports these findings (Silvergleit, 2009).

All groups appreciated gift cards more than the other gift options indicating that pairing floral gifts with gift cards to favorite stores could increase sales. Additional pairings with favorite gifts of each generation could benefit the industry too. For example, for consumers in Generations Y and XY, pairing floral gifts with CD/DVD/book or food/candy gifts may serve to boost sales. By giving consumers the option to pair their floral gift with an additional item, the gift's longevity, practicality and personality can be improved upon resulting in greater consumer satisfaction.

Gift impressiveness

Similar to gift appreciation, giving an impressive gift is important because givers feel the gift should leave a lasting, favorable impression (Teigen et al., 2005). Gift impressiveness was studied to ascertain sentiments felt by receivers when receiving different gifts. By gaining greater understanding of these responses, the industry can generate greater public interest and use of floral products as gifts. Generation Y participants felt cut flowers were the second most impressive gift. CD/DVD/book gifts were significant and the most impressive at 0.45, followed by cut flowers and wine (Table 8). Gift cards, plants and food/candy were less impressive gifts for this age group. Consumers in Generation XY were more impressed by cut flowers than any other gift option given. For consumers in Generation XX results, cut flowers, plants and gift cards were the most impressive (Table 8). However, wine, CD/DVD/book, and food/candy gifts were not impressive.

Overall, all participants were impressed by receiving floral gifts. In addition, these results show that as the participants got older, they were less impressed by gifts that impressed the younger generations. The industry can use this knowledge to pair floral gifts with other gifts that are impressive to their target market. Additionally, advertising campaigns emphasizing that young people are impressed by flowers could bring flowers into younger consumers' scopes when searching for suitable gifts.

Gift risk in close and casual relationships

Having studied positive gift sentiments (appreciation and impressiveness), this research also studied negative sentiments (risk) because the negative responses are often

remembered and have lasting impacts on social relationships (Sherry et al., 1993; Teigen et al., 2005). Risk was defined as the recipients may not like the gift. In addition, the perceived risk can potentially vary depending upon the closeness of the relationship (Parsons, 2002). By studying participants' responses, the industry can gain greater insight to the mental imagery of floral products among consumers in Generations XX, XY and Y and use this information to counter any negative assumptions through positive marketing. In close relationships, participants did not feel there was a lot of risk with any of the gifts.

For Generation Y participants, cut flowers had the second least amount of risk at -0.71, after gift cards (Table 9). Food/candy and CD/DVD/book gifts also had minimal risk for this group. Plants and wine had a similar and low perceived risk.

For Generations XY and XX, cut flowers were less risky at -0.55 and -0.59 than any of the other offered gifts except gift cards (Table 9). For Generation XY none of the other gifts had any perceived risk. For Generation XX, wine and CD/DVD/book gifts were somewhat risky. Additionally, focus group participants mentioned plants were risky due to care requirements. Receivers felt obligated to care for the gift so it lives because they feel guilty if it died.

For all three age groups, cut flowers were perceived as having low risk with gift cards having the least amount of risk. Cut flowers carry some risk when the receiver's preferences are not as well known; however, in a close relationship the giver knows more

about the receiver's preferences than in a casual relationship. Gift cards have the least amount of risk because the receiver can choose his/her own gift that s/he will enjoy.

In casual relationships, less is known about the receiver's preferences, which increases risk especially when choosing a highly personal gift such as wine and CD/DVD/books.

In general, cut flowers were still perceived as less risky gifts. For participants in

Generation Y, flowers were the third to least risky gift behind gift cards and food/candy (Table 10). These results show a perception of very high risk when giving

CD/DVD/book gifts. Wine and plants were not perceived as risky. For participants in

Generation XY, cut flowers were not risky; gift cards and food/candy were also

considered low risk gifts; however, wine and CD/DVD/book gifts were considered risky

for this group (Table 10). Participants in Generation XX did not consider cut flowers or

gift cards risky gifts for casual relationships. In addition, CD/DVD/book gifts were risky

as were wine and food/candy gifts. Plants were not significantly different from zero for

any of the age groups. Additionally, for consumers in Generations XY and XX

food/candy gifts were not perceived as risky.

In close relationships, the gift giver knows the receiver's preferences well resulting in

less risk for all gifts. The floral industry can use this knowledge to advertise flowers as

low risk or safe, enjoyable gifts for anyone at any occasion. In addition, a low

maintenance line of plants with clear care instructions can be developed to reduce the

risks associated with plants. Finally, florists can reduce floral products risk by pairing

them with gift cards which allows the receiver to choose part of the gift.

Conclusions

To assist florists and floral industry stakeholders who want to improve demand for floral products by attracting younger consumers, this paper presents the views of different age cohorts on floral gift giving frequency, gift idea sources, appreciation, impressiveness and risk to increase understanding of motivation behind gift purchasing decisions. A mixed ordered probit model was used to measure the intensity of feelings of agreement and measure correlations within responses to gifts from the same participant. We found participants purchased more birthday gifts than any other occasion gift and used friends and family the most frequently for gift ideas. In addition, Generation XX consumers enjoy floral gifts more than Generation Y and XY participants. All generations perceived cut flowers as a more impressive gift and lower risk than potted plants due to less care requirements. Overall, positive marketing, especially advertising, needs to be used to overcome negative perceptions of floral products as gifts among young consumers.

This study found many marketing adjustments that the floral industry can undertake to potentially increase young consumers' use of floral products as gifts. First, birthdays are the primary gift giving occasion, yet floral products are not often thought of as suitable birthday gifts. To counter this trend, educational advertising can be implemented to promote floral gifts for birthdays and other gift giving occasions. Reminders that flowers are suitable for many people on their birthday may keep floral gifts salient. To generate additional sales, floral gifts can be made more unique and fun and be paired with other gifts that are perceived as being more suitable, such as gift cards. Then, to improve floral

gift purchasing frequency, the industry can reposition floral gifts to attract more attention from the target market. To accomplish this task, positive word of mouth and attractive displays and advertisements need to be established that reinforce that floral gifts are suitable for all occasions. These advertisements, and online advertisements, need to incorporate humor and excellent visuals to be remembered by potential customers. Florists' websites need to reflect the latest advances in technology, provide guarantees, and be user friendly to improve business. Ultimately, the most efficient mode of advertising depends upon the target market and should be tailored to meet their needs accordingly.

To improve gift impressiveness, pair floral products with gift cards to popular stores. Giving consumers this additional gift item, improves floral gift longevity, practicality and personality. Overall, participants were impressed by cut flowers but not by potted plants due to plants needing additional knowledge of care requirements. The level of impressiveness varied by age and older consumers were more impressed by floral gifts than younger consumers. This information can be used to choose appropriate pairings to attract each market segment and develop marketing campaigns to showcase floral gift impressiveness. Pairing floral gifts with gift cards also reduces risk because the receiver can choose part of the gift and get exactly what he or she wants. In general, cut flowers have low risk in close and casual relationships, and the floral industry can advertise flowers as safe, enjoyable gifts for everyone for all occasions to improve consumer awareness.

Overall, by promoting floral products as gifts, there is potential to increase demand, sales and profits for floral industry firms. By implementing the data from this study into current marketing strategies and techniques, florists can expand their gift market share among consumers in Generations XX, XY and Y consumers and bring floral products back into the growth stage of the product life cycle.

Tables and Figures

Table 6. Percentage of respondents in each age segment indicating the frequency of participant use of gift idea resources. (Higher coefficient = More frequently used)

Source	Generation Y	Generation XY	Generation XX	Average
Newspaper	0.03***	0.18***	0.39	0.20
Online	0.59***	0.45	0.43	0.50
Merchandise or in store displays	0.76	0.75*	0.86	0.79
Billboard	0.05	0*	0.05	0.04
Magazine	0.17	0.22	0.29	0.23
Book	0.07	0.05	0.13	0.09
Friends & Family	0.82	0.82	0.75	0.79
TV	0.36	0.31	0.34	0.34
Radio	0.11	0.11	0.17	0.13
Other	0.15	0.22	0.18	0.18

<0.01***

<0.05**

<0.10*

Table 7. Mixed ordered probit model estimates showing how much participants personally like receiving the different gifts of the same price. (Higher coefficient = Greater appreciation)

Variable (α_j)	Generation Y		Generation XY		Generation XX	
	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Wine	0.22	0.16	0.06	0.21	-0.97***	0.17
Cutflower	0.25	0.16	0.27	0.20	-0.07	0.17
CD/DVD/Book	0.93***	0.16	0.42**	0.20	-0.51***	0.17
Giftcard	1.28***	0.17	1.18***	0.23	0.28	0.17
Food/Candy	0.56***	0.16	0.44**	0.21	-0.50***	0.17
Plant	----	----	----	----	----	----
Socio-demographic Variable (β_j)						
Education	-0.004	0.06	-0.05	0.11	-0.02	0.07
Gender	-0.16***	0.05	-0.17*	0.10	-0.08	0.08
Marriage	-0.03	0.06	-0.13	0.12	-0.06	0.09
Household size	0.02	0.07	0.13	0.10	-0.07	0.10
Income	-0.009	0.06	-0.07	0.14	0.03	0.09
u_1	-1.10***	0.14	-1.40***	0.19	-2.10***	0.17
u_2	-0.82***	0.13	-1.14***	0.18	-1.92***	0.16
u_3	-0.56***	0.13	-0.92***	0.18	-1.77***	0.16
u_4	-0.40***	0.13	-0.75***	0.18	-1.54***	0.15
u_5	-0.02*	0.12	-0.42**	0.17	-1.13***	0.14
u_6	0.23***	0.12	-0.21	0.17	-0.86***	0.14
u_7	0.53***	0.13	0.10	0.17	-0.50***	0.14
u_8	0.99***	0.13	0.41**	0.17	-0.11	0.14
u_9	1.40***	0.13	0.79***	0.17	0.24*	0.14
	<0.01***	<0.05**	<0.10*			

a. The ---- denotes that the “plants” variable was dropped as a comparison variable. Positive coefficients indicate that the gift is appreciated more than plants. Negative coefficients indicate that the gift is appreciated less than plants.

b. The log likelihood value for the ordered probit is -1064.39 for Generation Y, -620.78 for Generation XY, and -964.26 for Generation XX. The log likelihood ratio test statistic is 88.89 for Generation Y, 42.06 for Generation XY, and 64.21 for Generation XX. The p-value is <0.001 for all of the generations. The log likelihood ratio test between the mixed ordered probit model and ordered probit model showed significant differences between the models for Generations XY and XX (p-value <0.0005) and Generation Y was marginally significant (p-value <0.05).

Table 8. Mixed ordered probit model estimates indicating how impressed participants were by receiving the following gifts of the same price. (Higher coefficient = More impressed)

Variable (α_j)	Generation Y		Generation XY		Generation XX	
	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Wine	0.24	0.16	-0.08	0.21	-1.20***	0.17
Cutflower	0.24	0.16	0.46**	0.21	0.02	0.17
CD/DVD/Book	0.45***	0.16	0.27	0.20	-0.48***	0.17
Giftcard	0.14	0.16	0.33	0.21	-0.22	0.17
Food/Candy	-0.05	-0.16	0.07	0.20	-0.68***	0.17
Plant	----	----	----	----	----	----
Socio-demographic Variable (β_j)						
Education	-0.02	0.06	-0.12	0.13	-0.01	0.12
Gender	-0.09*	0.05	-0.23*	0.14	-0.20*	0.12
Marriage	0.07	0.06	-0.30**	0.14	-0.02	0.14
Household size	0.01	0.07	0.28**	0.13	-0.11	0.14
Income	0.04	0.06	0.04	0.15	-0.02	0.13
u_1	-1.51***	0.14	-1.71***	0.22	-2.36***	0.19
u_2	-1.05***	0.13	-1.36***	0.21	-2.15***	0.19
u_3	-0.80***	0.13	-1.20***	0.20	-1.90***	0.18
u_4	-0.58***	0.13	-0.95***	0.20	-1.72***	0.18
u_5	-0.26**	0.13	-0.56***	0.19	-1.25***	0.17
u_6	0.12	0.12	-0.26	0.19	-0.78***	0.17
u_7	0.42***	0.12	0.19	0.19	-0.30*	0.16
u_8	0.89***	0.13	0.59***	0.19	0.17	0.16
u_9	1.33***	0.13	1.08***	0.19	0.69***	0.17
	<0.01***	<0.05**	<0.10*			

a. The ---- denotes that the “plant” variable was dropped as a comparison variable. Positive coefficients indicate that the gift is more impressive than plants. Negative coefficients indicate that the gift is less impressive than plants.

b. The log likelihood value for the ordered probit is -1141.15 for Generation Y, -683.87 for Generation XY, and -1026.25 for Generation XX. The log likelihood ratio test statistic is 20.18 for Generation Y, 33.12 for Generation XY, and 60.62 for Generation XX. The p-value is <0.001 for Generations XY and XX, and <0.05 for Generation Y. The log likelihood ratio test between the mixed ordered probit model and ordered probit model showed significant differences between the models for Generations XY and XX (p-value <0.0005) and marginal significance for Generation Y (p-value <0.01).

Table 9. Mixed ordered probit model estimates indicating how risky participants perceived the listed gifts if they have a close relationship (know them well) with the gift recipients. (Higher coefficient= Higher perceived risk)

Variable (α_j)	Generation Y		Generation XY		Generation XX	
	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Wine	-0.10	0.16	-0.04	0.22	0.37**	0.17
Cutflower	-0.71***	0.17	-0.55**	0.22	-0.59***	0.18
Book	-0.31*	0.16	0.25	0.21	0.31*	0.17
Giftcard	-1.05***	0.17	-1.01***	0.23	-0.82***	0.18
Food	-0.54***	0.16	-0.25	0.22	-0.12	0.17
Plant	----	----	----	----	----	----
Socio-demographic Variable (β_j)						
Education	-0.19*	0.11	-0.01	0.11	0.18**	0.09
Gender	0.12	0.10	0.39**	0.16	0.03	0.09
Marriage	0.29***	0.10	0.09	0.13	-0.47***	0.11
Household size	-0.26**	0.13	-0.03	0.09	0.23**	0.12
Income	0.06	0.11	0.26	0.19	-0.04	0.10
u_1	-1.02***	0.15	-0.54***	0.21	-0.77***	0.15
u_2	-0.45***	0.16	0.10	0.20	0.01	0.14
u_3	0.03	0.15	0.53***	0.20	0.52***	0.15
u_4	0.35**	0.16	0.85***	0.21	0.73***	0.15
u_5	0.70***	0.16	1.38***	0.21	1.13***	0.15
u_6	0.96***	0.16	1.81***	0.22	1.50***	0.16
u_7	1.39***	0.17	2.04***	0.26	1.66***	0.17
u_8	1.94***	0.19	2.61***	0.26	2.02***	0.18
u_9	2.21***	0.20	2.82***	0.28	2.45***	0.19
	<0.01***	<0.05**	<0.10*			

a. The ---- denotes that the “plant” variable was dropped as a comparison variable. Positive coefficients indicate that the gift is a greater risk than plants. Negative coefficients indicate that the gift is not as great a risk as plants.

b. The log likelihood value for the ordered probit is -1001.01 for Generation Y, -585.18 for Generation XY, and -916.26 for Generation XX. The log likelihood ratio test statistic is 67.69 for Generation Y, 38.08 for Generation XY, and 56.02 for Generation XX. The p-value is <0.001 for all of the generations. The log likelihood ratio test between the mixed ordered probit model and ordered probit model showed significant differences between the models for all generations (p-value <0.0005).

Table 10. Mixed ordered probit model estimates indicating how risky participants perceived the listed gifts if they have a casual relationship (do not know them well) with the gift recipients. (Higher coefficient= Higher perceived risk)

Variable (α_j)	Generation Y		Generation XY		Generation XX	
	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Wine	0.21	0.16	0.44**	0.20	1.04***	0.17
Cutflower	-0.36**	0.16	-0.39*	0.20	-0.40**	0.17
Book	0.60***	0.16	0.41**	0.20	1.20***	0.17
Giftcard	-0.95***	0.16	-1.23***	0.21	-0.60***	0.17
Food	-0.49***	0.16	-0.34*	0.20	0.30*	0.16
Plant	----	----	----	----	----	----
Socio-demographic Variable (β_j)						
Education	-0.15	0.10	0.09	0.12	0.17*	0.10
Gender	0.08	0.09	0.04	0.11	0.01	0.10
Marriage	0.25***	0.09	-0.11	0.12	-0.09	0.12
Household size	0.02	0.11	0.08	0.10	0.25**	0.13
Income	0.02	0.10	0.12	0.14	-0.17	0.12
u_1	-1.45***	0.16	-1.23***	0.18	-1.03***	0.16
u_2	-0.91***	0.15	-0.58***	0.18	-0.42***	0.15
u_3	-0.53***	0.15	-0.24	0.17	-0.05	0.15
u_4	-0.16	0.15	0.06	0.17	0.29**	0.15
u_5	0.34***	0.15	0.62***	0.18	0.87***	0.15
u_6	0.63***	0.15	0.88***	0.18	1.16***	0.16
u_7	0.99***	0.15	1.08***	0.18	1.44***	0.16
u_8	1.41***	0.17	1.39***	0.19	1.87***	0.17
u_9	1.79***	0.17	1.77***	0.20	2.19***	0.18
	<0.01***	<0.05**	<0.10*			

a. The ---- denotes that the “plant” variable was dropped as a comparison variable. Positive coefficients indicate that the gift is a greater risk than plants. Negative coefficients indicate that the gift is not as great a risk as plants.

b. The log likelihood value for the ordered probit is -1105.02 for Generation Y, -674.04 for Generation XY, and -1028.23 for Generation XX. The log likelihood ratio test statistic is 100.50 for Generation Y, 69.75 for Generation XY, and 141.06 for Generation XX. The p-value is <0.001 for all of the generations. The log likelihood ratio test between the mixed ordered probit model and ordered probit model showed significant differences between the models for all generations (p-value <0.0005).

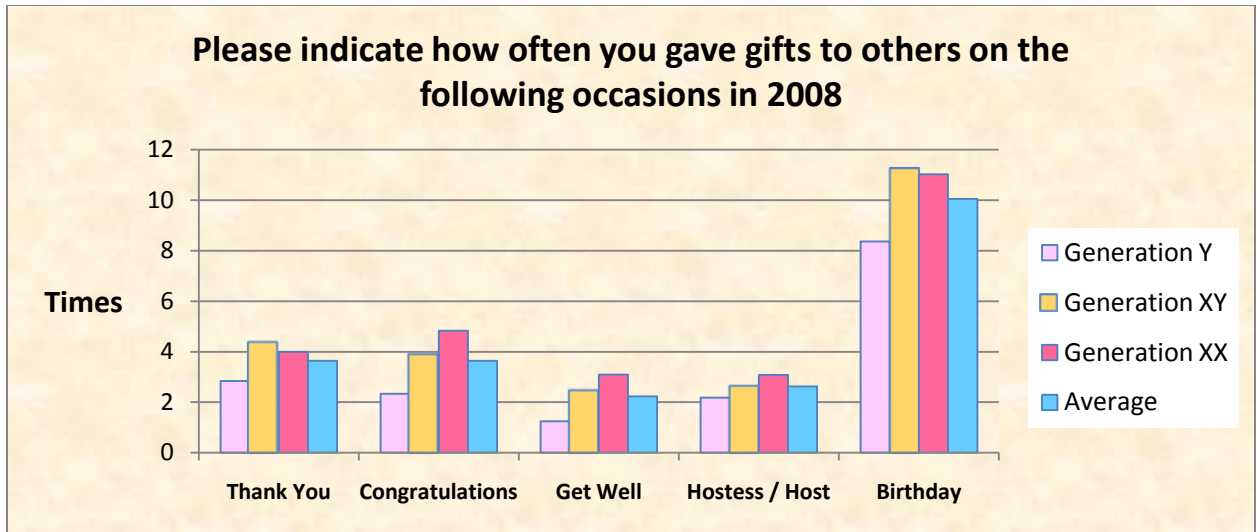


Figure 7. Frequency of gift purchases by occasion exhibited by a sample of 216 respondents that participated in floral-related focus group experiments conducted in Michigan and Minnesota in 2009.

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APPENDIX

QUESTIONNAIRE

SECTION 1. PURCHASE OF GIFTS

Instructions: The following questions are designed to reveal your gift purchasing and selecting habits. Please take time to thoroughly read and answer the questions to the best of your ability.

1. Please indicate how often you gave gifts to others on the following occasions in 2008?

Occasion	Not at all	1-2 times	3-5 times	6-8 times	8-10 times	10-15 times	16-20 times	21-25 times	26-30 times	31+ times
Thank You	a	b	c	d	e	f	g	h	i	j
Congratulation	a	b	c	d	e	f	g	h	i	j
Get well	a	b	c	d	e	f	g	h	i	j
Hostess gifts	a	b	c	d	e	f	g	h	i	j
Birthday	a	b	c	d	e	f	g	h	i	j

2. What resources do you use to get ideas for gifts? Please check all that apply.

Magazines → Please specify which magazines: _____

Newspapers

Books

Online → Please specify which websites: _____

Ask friends and family

Search merchandise or in store displays

Billboards

TV

Radio

Other → Please specify: _____

3. How much do the following gifts reflect your personality as a gift giver?

Gift	Not like me	Slightly not like me	Neutral	Slightly like me	Reflects my personality	N/A
Wine	A	B	C	D	E	F
Cut Flowers	A	B	C	D	E	F
CD/DVD/books	A	B	C	D	E	F
Gift Cards	A	B	C	D	E	F
Food/candy	A	B	C	D	E	F
Blooming Plants	A	B	C	D	E	F

4. How much do you feel is your upper limit to spend on *gifts* for the following occasions?

Occasion	\$10	\$20	\$30	\$40	\$50	\$60	\$70	\$80	\$90	Other (please specify)
Thank You	a	b	c	d	e	f	g	h	i	j _____
Congratulation	a	b	c	d	e	f	g	h	i	j _____
Get well	a	b	c	d	e	f	g	h	i	j _____
Hostess gifts	a	b	c	d	e	f	g	h	i	j _____
Birthday	a	b	c	d	e	f	g	h	i	j _____

SECTION 2. PURCHASE OF FLOWERS

Instructions: The following section focuses on what attributes and qualities you want in flowers. Consider the following questions and answer them to the best of your ability.

5. How many times do you purchase flowers for yourself / others per year on average?
(Please circle one.)

- a. 1-3 times per year b. 4-6 times per year c. 7-9 times per year d. 10 + times per year e. Never

6. How much do you feel is your upper limit to spend on *flowers* as gifts for the following occasions:

Occasion	\$10	\$20	\$30	\$40	\$50	\$60	\$70	\$80	\$90	Other (please specify)
Thank You	a	b	c	d	e	f	g	h	i	j _____
Congratulation	a	b	c	d	e	f	g	h	i	j _____
Get well	a	b	c	d	e	f	g	h	i	j _____
Hostess gifts	a	b	c	d	e	f	g	h	i	j _____
Birthday	a	b	c	d	e	f	g	h	i	j _____

SECTION 3. ATTITUDES TOWARDS GIFTS

Instructions: In this stage, your attitudes towards flowers as gifts are being examined. Please consider the following questions and answer them to the best of your ability.

7. Which of the following actions or options would increase your likelihood of purchasing flowers as gifts (1=extremely unlikely, 7=extremely likely) (Please circle only one response for each item)

Actions	extremel y unlikely	quite unlikel y	slightl y unlikel y	Neit her	Slightl y likely	quite likely	extre mely likely
(a) I was offered special discounts	1	2	3	4	5	6	7
(b) More price ranges were available	1	2	3	4	5	6	7

Exposure and Information								
(c)	Flowers were available at places or websites I often visit	1	2	3	4	5	6	7
Actions		extremel y unlikely	quite unlikel y	slightl y unlikel y	Neit her	Slightl y likely	quite likely	extre mely likely
(d)	I was reminded about when to buy flowers	1	2	3	4	5	6	7
(e)	I was reminded how to appropriately use flowers as gifts	1	2	3	4	5	6	7
(g)	I could learn more about symbolism of individual flowers	1	2	3	4	5	6	7
(h)	Flowers were perceived to be trendy by my friends	1	2	3	4	5	6	7
(i)	The clearer care instructions	1	2	3	4	5	6	7
(j)	More information about the country of origin was provided	1	2	3	4	5	6	7
Sustainability								
(k)	There was more information about how the flowers were raised, including chemicals used or not used	1	2	3	4	5	6	7
(l)	The floriculture industry focused more on the green movement	1	2	3	4	5	6	7
(m)	There are more organically grown flowers	1	2	3	4	5	6	7
(n)	There was more locally-grown flowers	1	2	3	4	5	6	7
(o)	The package was made environmentally friendly	1	2	3	4	5	6	7
Experience and Uniqueness								

(p)	Sellers organized more activities or contests related to flowers (such as floral design contests, etc.)	1	2	3	4	5	6	7
(q)	Sellers provided me with the opportunity to customize my own bouquet	1	2	3	4	5	6	7
	Actions	extremel y unlikely	quite unlikel y	slightl y unlikel y	Neit her	Slightl y likely	quite likely	extremel y likely
(r)	My arrangement was pre-made	1	2	3	4	5	6	7
(s)	There was more unique/unusual arrangements	1	2	3	4	5	6	7
(t)	The arrangement was trendy and more fashionable	1	2	3	4	5	6	7
(u)	If another gift was offered with the flowers (e.g. candy, jewelry, music, wine, etc.)	1	2	3	4	5	6	7
	Packaging							
(v)	The packaging was more fashionable	1	2	3	4	5	6	7
(w)	The packaging was unique	1	2	3	4	5	6	7
(x)	Their packages was easier to carry	1	2	3	4	5	6	7
	Flower Attributes							
(y)	The longevity of flowers was proven to be longer	1	2	3	4	5	6	7
(z)	Flowers had more interesting shapes	1	2	3	4	5	6	7
(aa)	Flowers were paired with wine	1	2	3	4	5	6	7
(bb)	Flowers were paired with CD/DVD/Books	1	2	3	4	5	6	7
(cc)	Flowers were paired with a gift card	1	2	3	4	5	6	7

(dd)	Flowers were paired with food or candy	1	2	3	4	5	6	7
------	--	---	---	---	---	---	---	---

8. How much do you agree with the following statements (1=strongly disagree, 7=strongly agree)? (Please circle only one response for each item)

	Statement	Strongly disagree	somewhat disagree	Slightly disagree	neither	slightly agree	some what agree	strongly agree
Attitudes Towards Flowers								
(a)	Flowers symbolize love	1	2	3	4	5	6	7
(b)	Flowers cheer me up when I am down	1	2	3	4	5	6	7
(c)	Flowers remind me of a special memory	1	2	3	4	5	6	7
(d)	I enjoy receiving flowers	1	2	3	4	5	6	7
(e)	Flowers are the best way to put a smile on someone's face	1	2	3	4	5	6	7
(f)	Flowers are a unique way to convey messages	1	2	3	4	5	6	7
Price								
(g)	Flowers are too expensive to be used as gifts	1	2	3	4	5	6	7
(i)	I don't have enough disposable income to spend on floral gifts	1	2	3	4	5	6	7
(j)	Flowers are a perishable luxury	1	2	3	4	5	6	7

(k)	I am reluctant to spend money on something that will only last a few days	1	2	3	4	5	6	7
Knowledge of Flowers as Gifts								
(l)	Flowers are hardly in my scope when I look for gifts	1	2	3	4	5	6	7
	Statement	Strongly disagree	somewhat disagree	Slightly disagree	neither	slightly agree	some what agree	strongly agree
(m)	I do not know much about flowers as gifts	1	2	3	4	5	6	7
(n)	I don't have a clear idea about when flowers are appropriate gifts	1	2	3	4	5	6	7
(o)	It's hard to go wrong with flowers as gifts	1	2	3	4	5	6	7
(p)	Flowers are safer gifts than others	1	2	3	4	5	6	7
(q)	I feel flowers are always appropriate and they don't need more marketing to make them "special"	1	2	3	4	5	6	7
(r)	Flowers, as gifts, only work for specific holidays or occasions	1	2	3	4	5	6	7
(s)	I did not grow up with flowers being used or received as gifts by my parents and relatives	1	2	3	4	5	6	7
(t)	Flowers are traditional gifts that are mainly used by an older crowd	1	2	3	4	5	6	7
(u)	Flowers as gifts seem to be impersonal and therefore not as	1	2	3	4	5	6	7

attractive to a me								
(v)	My friends don't like to receive flowers as gifts compared with other products	1	2	3	4	5	6	7
(w)	There are many other choices of gifts that are more appropriate than flowers	1	2	3	4	5	6	7

	Statement	Strongly disagree	somewhat disagree	Slightly disagree	neither	slightly agree	some what agree	strongly agree
(x)	There are not enough choices of flowers to be used as gifts	1	2	3	4	5	6	7
(y)	Flowers are not as surprising as other gifts, and are therefore not as attractive as the alternatives	1	2	3	4	5	6	7
Awareness and Convenience								
(z)	I don't see much advertisement about floral gifts in the media	1	2	3	4	5	6	7
(aa)	Most florists are located too far away and it's not convenient to make a special trip to purchase flowers as gifts	1	2	3	4	5	6	7
(bb)	I like premade bouquets	1	2	3	4	5	6	7
(cc)	I like to assemble my own bouquet	1	2	3	4	5	6	7

9. How often do you see advertisements for the following items?

	Always	Most times	Some times	Seldom	Never
Wine	A	B	C	D	E
Flowers	A	B	C	D	E
CD/DVD/books	A	B	C	D	E
Gift Cards	A	B	C	D	E
Candy/food	A	B	C	D	E

10. How do you rate the ease of purchase for the following items?

	Very easy	Easy	Neutral	Difficult	Very Difficult
Wine	A	B	C	D	E
Flowers	A	B	C	D	E
CD/DVD/books	A	B	C	D	E
Gift Cards	A	B	C	D	E
Candy/food	A	B	C	D	E

11. How reasonable do you think of the market price for the following items?

	Very reasonable	Reasonable	Neutral	Unreasonable	Very Unreasonable
Wine	A	B	C	D	E
Flowers	A	B	C	D	E
CD/DVD/books	A	B	C	D	E
Gift Cards	A	B	C	D	E
Candy/food	A	B	C	D	E

12. What do you perceive to be the reasonable vase life for cut flowers? (Circle one)

- a. 0-5 days b. 6-10 days c. 11-15 days d. 15-20 days e. Other _____

SECTION 5. BACKGROUND INFORMATION

Instructions: This section used to uncover your media exposure and gifting habits. Please read carefully and answer the questions the best that you can.

13. Overall, how much do you personally like receiving the following gifts of the same price? Please use a scale of 1 to 10 where “1” means “dislike very much” and “10” means “like very much.”

	Dislike very much									Like very much
Cut Flowers	1	2	3	4	5	6	7	8	9	10
Wine	1	2	3	4	5	6	7	8	9	10
CD/DVD/ Book	1	2	3	4	5	6	7	8	9	10
Gift card	1	2	3	4	5	6	7	8	9	10
Food/Candy	1	2	3	4	5	6	7	8	9	10
Blooming plants	1	2	3	4	5	6	7	8	9	10

14. Overall, how impressed are you by receiving the following gifts of the same price? Please use a scale of 1 to 10 where “1” means “Not impressed at all” and “10” means “greatly impressed.”

	Not impressed at all									Greatly impressed
Cut Flowers	1	2	3	4	5	6	7	8	9	10
Wine	1	2	3	4	5	6	7	8	9	10
CD/DVD/ Book	1	2	3	4	5	6	7	8	9	10
Gift card	1	2	3	4	5	6	7	8	9	10
Food/candy	1	2	3	4	5	6	7	8	9	10
Blooming plants	1	2	3	4	5	6	7	8	9	10

15. If you have a CLOSE relationship with your gift recipients (KNOW HIM/HER VERY WELL), how do you perceive the risk associated with following gifts? Risk means that the recipients may not like the gift. Please use a scale of 1 to 10 where “1” means “Very low risk” and “10” means “Very high risk.”

	Very low risk									Very high risk
Cut Flowers	1	2	3	4	5	6	7	8	9	10
Wine	1	2	3	4	5	6	7	8	9	10
CD/DVD/ Book	1	2	3	4	5	6	7	8	9	10
Gift card	1	2	3	4	5	6	7	8	9	10
Food/candy	1	2	3	4	5	6	7	8	9	10
Blooming plants	1	2	3	4	5	6	7	8	9	10

16. If you have a CASUAL relationship with gift recipients (DO NOT KNOW HIM/HER WELL), how do you perceive the risk associated with following gifts? Risk means that the recipients do not like the gift. Please use a scale of 1 to 10 where “1” means “Very low risk” and “10” means “Very high risk.”

	Very low risk									Very high risk
Cut Flowers	1	2	3	4	5	6	7	8	9	10
Wine	1	2	3	4	5	6	7	8	9	10
CD/DVD/ Book	1	2	3	4	5	6	7	8	9	10
Gift card	1	2	3	4	5	6	7	8	9	10
Food/candy	1	2	3	4	5	6	7	8	9	10
Blooming plants	1	2	3	4	5	6	7	8	9	10

SECTION 5. SOCIO-DEMOGRAPHICS

Instructions: We would like you to answer just a few more survey questions about you and your household. Your completion of the survey is extremely important for the results of this study.

Remember that your responses are confidential.

17. What is your AGE? (very important information)

18. What is the highest level of EDUCATION you have completed? *(Please check only one response)*

- | | |
|---|---|
| <input type="checkbox"/> Some High School or Less | <input type="checkbox"/> College Diploma |
| <input type="checkbox"/> High School Diploma | <input type="checkbox"/> Some Graduate School |
| <input type="checkbox"/> Some College | <input type="checkbox"/> Graduate degree |

19. What is your GENDER?

- | | |
|-------------------------------|---------------------------------|
| <input type="checkbox"/> Male | <input type="checkbox"/> Female |
|-------------------------------|---------------------------------|

20. What is your marital status?

- Not married / single
- In a relationship
- Married
- Divorced / separated
- Widow / widower

21. How many people live in your household? Include yourself, your spouse, and any dependents. Do not include your roommates: *(Please check only one response)*

- | | | |
|----------------------------|----------------------------|-------------------------------------|
| <input type="checkbox"/> 1 | <input type="checkbox"/> 5 | <input type="checkbox"/> 9 |
| <input type="checkbox"/> 2 | <input type="checkbox"/> 6 | <input type="checkbox"/> 10 or More |

- 3
- 4
- 7
- 8

22. Please circle the category below that describes the total amount of INCOME earned in 2008 by the people in your household (as "household" is defined in question 18). (Please check only one response)

[Consider all forms of income, including salaries, tips, interest and dividend payments, scholarship support, student loans, parental support, social security, alimony, and child support.]

- \$15,000 or under
- \$15,001 - \$25,000
- \$25,001 - \$35,000
- \$35,001 - \$50,000
- \$50,001 - \$65,000
- \$65,001 - \$80,000
- \$80,001 - \$100,000
- Over \$100,000

MIXED ORDERED PROBIT MODEL

In a survey that asks the respondents' opinion, the respondents' intensity of feelings is dependent on some measurable factors and some unobservable factors. In many situations, the respondents are given only a set number of possible answers, say five, to the question of y . Consumers choose the cell that most closely represents the intensity of response to the question. For example, for product j 's price, consumer i is asked to choose among the five choices on a Likert scale: very reasonable ($y_{ij} = 1$), reasonable ($y_{ij} = 2$), neutral ($y_{ij} = 3$), unreasonable ($y_{ij} = 4$), very unreasonable ($y_{ij} = 5$). The consumers' choice of the five categories is dependent on an underlying utility/satisfaction function from certain products' attributes. Suppose U_{ij} is the utility/satisfaction that consumer i derives from j and U_{ij} can be expressed as follows:

$$U_{ij} = \alpha_j + \beta_1 \text{agegroup}_i + \beta_2 \text{education}_i + \beta_3 \text{gender}_i + \beta_4 \text{marriage}_i + \beta_5 \text{household}_i + \beta_6 \text{income}_i + y_i + \varepsilon_{ij}; i = 1, \dots, 226 (n); j = \text{wine, cut flowers, book, gift card, food, and plants. (1)}$$

Where α_j is the design matrix which is a row vector of the i th consumer's characteristics, which include socio-demographics and product quality attributes; α_j is the dependent variable (selected gift) coefficient which participants selected; β_j is the socio-demographic coefficient associated with α_j indicating the effect of β_j on α_j ; γ_i is the random individual effect, which is assumed to follow normal distribution with mean zero and standard distribution σ_γ ; the random individual effect is used to capture the correlation between the choices on multiple products made by the same individual; ε_{ij} is the residual error term that is not captured by design matrix α_i , which is assumed to

follow a normal distribution with mean zero and standard deviation σ_ε . There are 226 (n) consumers and 6 (J) products.

U_{ij} cannot be observed. What we observe is the i th consumer's choice, which is denoted as y_{ij} .

$$\begin{aligned}
 y_{ij} = 0 & \text{ if } U_{ij} \leq u_{0j} \\
 y_{ij} = 1 & \text{ if } u_{0j} < U_{ij} \leq u_{1j} \\
 y_{ij} = 2 & \text{ if } u_{1j} < U_{ij} \leq u_{2j} \\
 & \vdots \\
 y_{ij} = K & \text{ if } u_{k-1,j} \leq U_{ij}
 \end{aligned} \tag{2}$$

The structure of equation (2) is a form of censoring for $i = 1, \dots, n$; $j = 1, \dots, J$. The u 's are unknown parameters which can be estimated; consumer i has K choices. ε_{ij} is assumed to be normally distributed across observations. In consequence, for $i = 1, \dots, n$; $j = 1, \dots, J$ we have the following probabilities:

$$\begin{aligned}
 Prob(y_{ij} = 1) &= \Phi(u_{1j} - X_i\beta_j - \gamma_i) \\
 Prob(y_{ij} = 2) &= \Phi(u_{2j} - X_i\beta_j - \gamma_i) - \Phi(u_{1j} - X_i\beta_j - \gamma_i) \\
 Prob(y_{ij} = 3) &= \Phi(u_{3j} - X_i\beta_j - \gamma_i) - \Phi(u_{2j} - X_i\beta_j - \gamma_i) \quad (3) \\
 & \vdots \\
 Prob(y_{ij} = k) &= 1 - \Phi(u_{k,j} - X_i\beta_j - \gamma_i)
 \end{aligned}$$

where $\Phi(\cdot)$ is the cumulative distribution function for standard normal distribution.