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DELIGHTED CUSTOMERS BUY AGAIN: AN INVESTIGATION INTO THE IMPACT OF CONSUMER KNOWLEDGE ON CONSUMER SATISFACTION AND DELIGHT OF FLOWERING POTTED PLANTS

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BY

JESSICA MARIE HICKS

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ABSTRACT

DELIGHTED CUSTOMERS BUY AGAIN: AN INVESTIGATION INTO THE IMPACT OF CONSUMER KNOWLEDGE ON CONSUMER SATISFACTION AND DELIGHT OF FLOWERING POTTED PLANTS

By

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This research examined the role of moderating variables in satisfaction research. It tested the role of prior plant knowledge on repurchase intention. Knowledge level was proposed to be a potential moderating variable of the relationship between satisfaction and repurchase intention as well as delight and repurchase intention. An Internet survey was conducted to examine an actual purchase experience, in this case the initial purchase and the actual performance of the plant following purchase. Structural equation modeling was used to test hypotheses. The results showed that knowledge level did not have a moderating effect on the delight to repurchase intention path, nor did it moderate the satisfaction to repurchase intention path. The delight to repurchase intention path, however, had a significant impact on repurchase intention. Results were consistent with existing literature, indicating that greater emphasis should be placed on delighting the consumer, rather than just satisfying them.

DEDICATION

To my grandfather: Norman E. Maney
Here's to following your dreams no matter where they may lead.
Proverbs 3:5,6

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SECTION I

INTRODUCTION

INTRODUCTION

Growth in the retail sector of the horticulture industry has increased significantly in the past twenty years, but has slowed recently. As competition for consumer demand in horticulture intensifies, so too does competition from mass merchandisers and home centers. The market share difference between independent garden centers, mass merchandisers, and home centers has fast been closing over the past six years. In 1998, 32 million households purchased lawn and gardening products from garden centers, leading both the home centers and mass merchandisers by $3 million and $11 million respectively (National Gardening Survey, 2003). By 1999, home centers surpassed garden centers as the top location patronized by households within the U.S. Home centers have since remained the leading choice in location for the purchase of lawn and gardening products. Sales in garden centers have fluctuated, peaking at 39 million households in 2001, decreasing to 36 million households in 2003 (decrease of 7.7%) (National Gardening Survey, 2003). Mass merchandisers closely follow garden centers in sales of lawn and garden products, indicating that their presence will continue to strongly compete with their market share. As of early 2004, home centers dominated market share, with garden centers and mass merchandisers following closely behind (National Gardening Survey, 2003). In this highly competitive market, how can a traditional garden center compete? Creativity and differentiation in the product mix and price point that is offered immediately come to mind, but these ideas will not translate into profitability unless the retailer can quantify why a customer continues to patronize a specific garden center. As competitive forces continue to increase, so too, will the need to understand this phenomenon.

Consumer Education. In recent years, there has been a call for improved marketing strategies within the horticulture industry. In response to this call, retailers have begun to place more emphasis on consumer education, guarantees, and satisfaction strategies. Niemiera, Innis-Smith and Leda (1993) suggested that consumer sales are directly correlated to the ability of the retailer to meet consumer needs. Other authors have indicated that the many retailers are seeking attractive niches from which to sell their wares (Behe, Prince and Tayama, 1992a, 1992b; Prince, Tayama, and Grabner, 1990, 1991).

Risk. Any time a consumer purchases a product, they take a risk. Product cost plays a large role in the risk level the consumer feels. It therefore stands to reason that the consumer will attempt to purchase a product that has more benefits than perceived risks. A study of Georgia retail garden outlets and mass merchandisers conducted by Garber and Bondari (1998) details the perceived differences between retail outlets and the causes of consumer discontent. Consumer complaints were investigated in detail, with the top three complaints pertaining to price, poor plant quality, and plant death or poor performance. Dennis, et al. (2005) examined the impact of regret and satisfaction on future purchases of horticultural products. When regret occurred, study participants were more likely to switch products irregardless of their satisfaction level, thus regret drove switching behavior. The effect of product guarantees was studied. For consumers who purchased a hanging basket, customer satisfaction increased and regret decreased when guarantees were provided. This effect was not observed in the purchase of perennials and potted roses. The authors suggest that guarantees may be seen as necessities, especially when consumers perceive a higher risk plant. Consumers who buy plants at greater

perceived risk may assume that a guarantee will be present, which can, to an extent, moderate their level of risk with the purchase.

Consumer Satisfaction. Satisfaction as defined by Hunt (1977), "is not the pleasurableness of the [consumption] experience...it is the evaluation rendered that the experience was at least as good as it was supposed to be." Satisfaction is a fundamental outcome of the marketing concept, providing a link between purchase and consumption processes and postpurchase phenomena (attitude change, repeat purchase and brand loyalty). The positive execution of this link generates profits through the fulfillment of consumers' wants and needs. In the past, satisfaction was studied abstractly by researchers in the horticulture industry; findings from these studies gave specific implications to retailers on how to implement strategies to remain competitive. Researchers examined why consumers shop at particular retail outlets (Day, 1994; Garber and Bondari, 1998), how plant quality and health, variety of plants, labeling and signage, and knowledgeable staff improve marketing efforts (Behe and Barton 2000) and the type of information customers use in the selection of plant material (Niemiera, et al., 1993).

Prior work on plant guarantees (Behe and Barton, 2000; Dennis et al., 2005) examined the motivations used by consumers when shopping at retail centers and their importance. While Dennis et al. (2005) showed that plant guarantees are important, and in particular cases expected, a gap still exists in regard to why a satisfied customer fails to repurchase a specific plant from a particular retailer. The satisfied customer may switch to a different plant or from the retail center altogether. Despite the fact that retail centers are aware that they must satisfy the customer, this concept has not been quantified in a

manner that determines the outcomes of satisfaction such as repurchase intent, positive word-of-mouth, and loyalty.

Knowledge. A review of the satisfaction literature indicates that satisfaction influences only a small proportion of the variance in repurchase behavior (Bolton, 1998). While satisfaction is the principal metric used by companies to detect customer defection rates, it is only a weak predictor of whether or not a customer will defect. Capraro, Broniarczyk, and Srivastava (2003) suggest that repurchase intention is influenced by "how much" customers know about the product and its alternatives. Knowledge level then plays a moderating role between satisfaction and repurchase intention; indicating that knowledge level has a direct effect on the likelihood of defection, over and above that of satisfaction. Barton et al. (1996) indicated that in a study of consumer acceptance in regard to wildflower sod, most homeowners (consumers) preferred information in writing rather than expressed by the salesclerk. The authors also suggest that many professionals are incapable of providing all of the knowledge necessary to fully educate the consumer, which may lead the consumer to purchase a plant that may not perform at its best.

Delight. "It will not suffice to have customers that are merely satisfied" (Deming, 1986). Recent research in the satisfaction literature has led to the belief that higher levels of satisfaction exist beyond that of positive disconfirmation (Oliver et al., 1997). The principle of customer delight (Schlossberg, 1990) is believed by many researchers to be the key to customer loyalty. Chandler (1989) describes customer delight as a reaction on the part of the consumer occurring when a product or service provides unexpected value or unanticipated satisfaction. The principle of customer delight has been well

documented and accepted among practitioners, however, very little work has been done in the satisfaction literature to document the impact of customer delight on overall satisfaction.

Consumer Research. Surveying customers to determine the marketability of new or repositioned products is a regular practice across multiple industries. One method used by a variety of industries, which is applicable to horticulture is the e-LITe surveying technique used by Survey Sampling, Inc. (SSI) (Fairfield, CT). This surveying technique, conducted by SSI allows for the global targeting of customers by lifestyle, topics of interest, and specific demographic characteristics. Unlike similar surveys, the e-LITe system is based on predictive techniques, which gives researchers the exact targets with the specific interests they are looking for. Data is collected principally through a variety of permission-based marketing sources. Customers are invited to participate in surveys via email, based on the specific interests and criteria of the researcher. This surveying technique builds on perceptual mapping techniques by the measurement of consumer perceptions which in turn helps to determine which plants should be introduced or repositioned. If consumers are not an integral component of market research, the success of the product will be jeopardized.

The old adage that "It is five times more expensive to find a new customer than it is to keep an existing customer happy" is true within many retail segments, and as such can be applied to the horticulture industry. The application of delighting a customer can best be summarized by the CEO of the Eastman Kodak Company:

> Customer delight is the reaction of customers when they receive a service or product that not only satisfies, but provides unexpected value or unanticipated

satisfaction. Customer satisfaction, which we have all worked hard to provide, is largely a static process that focuses on today and deals with known circumstances and known variables. Providing customer delight is a dynamic, forward-looking process that takes place primarily in the unknown environment...going beyond satisfaction to customer delight will provide a distinct advantage to the company that does it first and does it well consistently" (Chandler, 1989).

Our goal through this research was to evaluate the moderating effect of plant knowledge (high or low) on the satisfaction to repurchase intention path as well as the delight to repurchase intention path. Through this research we hope to give traditional retail garden centers as well as national chains an in-depth view of consumer needs and wants that will help them to differentiate themselves from their competition.

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SECTION II

LITERATURE REVIEW OF SATISFACTION, DELIGHT, AND REPURCHASE INTENTION

Literature Review of Satisfaction, Delight, and Repurchase Intention

Consumer satisfaction over the past two decades has rapidly become one of the most central components of marketing practice. Abundant literature exists regarding this concept; however, multiple authors deviate in their measure of satisfaction. This chapter provides a review of existing research on consumer satisfaction and its components in three areas: 1) the definition of consumer satisfaction as well as its components, 2) the emotion of delight, and 3) postpurchase intention.

Introduction

Satisfaction as defined by Hunt (1977), "is not the pleasurableness of the [consumption] experience...it is the evaluation rendered that the experience was at least as good as it was supposed to be." Satisfaction is a fundamental outcome of the marketing concept, providing a link between purchase and consumption processes and postpurchase phenomena (attitude change, repeat purchase and brand loyalty). The positive execution of this link generates profits through the fulfillment of consumers' wants and needs. Satisfaction as a measurable component of the marketing concept was for a long period of time merely a philosophical statement. Early researchers began to search for methods in which to translate the early foundations of satisfaction research into operational guidelines (Anderson, 1973; Cardozo, 1964; Olshavsky and Miller, 1972; and Pfaff, 1972). Out of this research came the fundamentals of theoretical testing and empirical research based on consumer satisfaction.

In the past 30 years, the consumerist movement has gained momentum, raising legitimate concerns based on the fairness of business practices in relation to consumer purchases. In lieu of this perceived unfairness, consumers have adopted an organized

movement, placing pressure on government agencies to strengthen the rights of buyers in relation to sellers. The progression of this movement has led to consumerism, which places emphasis on the consumer through the formulation of policies, (i.e. how to handle consumer complaints) (Kotler, 1997). The result of increased consumer dissatisfaction with products, services, and marketing practices led to an increased interest in the causes of consumer satisfaction/dissatisfaction (LaTour and Peat, 1979). Consumer satisfaction places a strong emphasis on delivering satisfaction to the consumer (additional benefits added to the product) which in turn leads to increased profit margins (Yi, 1990). Consumer satisfaction is linked to various needs of the consumer; fulfillment of these needs leads to satisfaction and increases the possibility of repurchase or even loyalty. Thus, researchers have found the need to study consumer satisfaction very imperative.

The definition of CS varies widely depending on the researcher. Yi (1990) suggests that there are two types of definitions, outcome based (supported by Howard and Sheth, 1969; Westbrook and Reilly, 1983; Oliver, 1981), or process related (Hunt, 1977; Engel and Blackwell, 1982; Tse and Wilton, 1988). Outcome based CS focuses on the consumer's emotional response to a consumption experience. Process related CS is based on an evaluative process, which measures the divergence between actual performance and expectations. Yi (1990) proposes that the benefit of using a process related approach rather than an outcome based approach is significant. The process related approach spans the entire consumption experience, and is composed of multiple measures, which when combined produce CS. Oliver (1980a), Bearden and Teel (1983), and Day (1984) concur with this thought, using process related approaches in their studies.

Disconfirmation of Expectations Theory

Significant prior research on the topic of consumer satisfaction/dissatisfaction (CS/D) (Day 1977, 1980; Swan and Combs, 1976; LaTour and Peat, 1979a; Oliver, 1980a; Churchill and Surprenant, 1982) has led to a broadly accepted CS/D paradigm based on the notion that CS/D results from a type of comparison process. Evaluation and expectation play a large role in this comparison process. Oliver (1980) and Woodruff et al. (1983, 1987) posit that evaluation is in reality a comparison of actual performance versus that of a particular standard. Evaluations are composed of the expectations and performance of the specific product. Expectations create a frame of reference whereby comparative judgment occurs based on the performance of the product. Consumers have certain expectations of performance of the product prior to purchase based on their evoked set. The perceived expectations held by the consumer are indicative of what they expect to receive when purchasing the product. Upon use or consumption, the consumer measures the actual performance of the product versus the perceived performance of the product. This cognitive comparison is called disconfirmation. If expectations and perceived performance are equal, confirmation occurs. Positive disconfirmation occurs when perceived performance exceeds expectations, leading to satisfaction on the part of the consumer. Conversely, negative disconfirmation occurs when expectations are greater than actual performance leading to dissatisfaction on the part of the consumer. The gap between performance and expectations has been shown by multiple authors to be a predictor of satisfaction (Yi, 1990). This thought process as a whole is known as the disconfirmation paradigm. However, differences in opinion occur based upon standards

and interrelationships among key variables (LaTour and Peat, 1979; Churchill and Surprenant, 1982; Westbrook and Reilly, 1983; Spreng et al., 1996).

Expectations.

Expectations, as defined by Oliver (1980a,b), Olson and Dover (1979), LaTour and Peat (1979), and Spreng et al., (1996) are beliefs with reference to the product's desired attributes or performance at some point in the future. Cadotte et al., (1987) further expand on this definition in their study of experience-based norms. They suggest that norms held by consumers are composed of two characteristics; 1) the reflection of desired performance in meeting needs/wants and 2) the performance consumers believe is possible. It is extensively modeled (disconfirmation of expectations theory) that expectations are central to the satisfaction formation process. Researchers, however, differ in their definition of the expectations construct.

Oliver (1980b) suggests that expectations are actually composed of adaptation levels created by the consumer based on their existing knowledge. This follows prior work by Cardozo (1965) and Howard and Sheth (1969), who also used the adaptation level theory to compare actual performance of a product versus expectations regarding performance. This stream of research is modeled after Helson's (1948, 1959) adaptation level theory. Oliver (1980b) expanded on Helson's work, suggesting that satisfaction responses are not only related to disconfirmation of expectations, but are also related independently to pre-choice expectations. The summation of the expectation level and ensuing disconfirmation are thought to result in satisfaction (Westbrook and Reilly, 1983).

The formation of expectation on the part of the consumer arises from three sources; prior experience with the product itself or with a similar product, post-use performance evaluation, and/or comparison standards (Woodruff et al., 1983). The level of prior experience a consumer has with a product is related directly to the satisfaction process. Consumers transport beliefs regarding the particular product from their evoked set. The more prominent the belief, the greater the feeling or expectation the consumer has in regard to product performance. Beliefs result from experiences the consumer has drawn from personal use, word-of-mouth referrals/criticisms, and marketing efforts of companies (Woodruff et al., 1983). After product consumption or use, the consumer evaluates the actual performance; i.e. did the detergent actually remove stains? The measurement of performance in relation to prior expectations will determine the level of disconfirmation regarding the product. Expectations regarding the product are also impacted by specific attributes or benefits that are desired by the consumer. The use occasion for the product will determine which attributes and benefits are significant as well as how the consumer expects the product to perform. Therefore, it stands to reason that products which are used or purchased less frequently (high dollar or high risk items) have greater significance to the consumer.

Woodruff et al., (1983) suggest that a multi-attribute model could be used to determine performance. A multi-attribute model is the summation of the beliefs about, and evaluations of associated attributes and/or expected consequences of using the brand (Peter and Olson, 2002). Product norms are used as a frame of reference, whereby consumers evaluate performance, which relates to confirmation/disconfirmation relative to the norm. There are a variety of performance norms, each of which is dependent on

the product or brand experiences of the consumer (Woodruff et al.,1983; LaTour and Peat, 1979). Assimilation theory is applied to the concept of performance norms to describe the confirmation/disconfirmation of the product. Perceptions of performance that are acceptable to the consumer (positive) are assimilated towards the norm. Perceptions that differ significantly from expectations do not match performance norms, causing disconfirmation on the part of the consumer (Woodruff et al., 1983). Deviations from the initial adaptation level are based on the ability of the product to meet, fall short, or exceed initial expectations (disconfirmation levels) (Oliver, 1980b; Howard and Sheth, 1969; Spreng and Page, 2001). Only large deviations from the standard position have the ability to change the final evaluation of the product. Oliver (1980b) states, "Satisfaction, then, can be seen as an additive combination of the expectation level and the resulting disconfirmation."

Alternatives to the Disconfirmation of Expectations Theory

Several authors have questioned using the disconfirmation of expectations theory as the only measure of satisfaction. Westbrook and Reilly (1983) suggest that satisfaction, under various conditions, is not defined clearly, leaving room for questions. LaTour and Peat (1979a) point out several inconsistencies in using expectations as a comparison standard, as is done in the disconfirmation of expectations model. For example, a new product is introduced to the market that possesses specific attributes that the consumer desires more than any other product currently on the market. If expectations are elevated by the marketer, and the product does not perform as well as expected, negative disconfirmation will occur. The question asked by researchers is whether or not satisfaction would occur under these circumstances. LaTour and Peat

(1979a) suggest that while disconfirmation occurs, the consumer will not be dissatisfied, because the product contains more attributes than any other product within its category. They hypothesize that while the disconfirmation of expectations model may predict satisfaction in certain cases, it does not apply in this example. The consumer's evaluation of product attributes is hypothesized to account for more variability in post-purchase satisfaction than that of confirmation/disconfirmation of expectations of the attributes (LaTour and Peat, 1979a).

The second inconsistency relates to poor product performance. A consumer may purchase a product even if it is expected to perform poorly because the product is the only alternative on the market. If the product does in fact perform poorly, the consumer's expectations will be confirmed. The disconfirmation of expectations model predicts that this disconfirmation would lead to either confirmation (neutral feelings) or positive disconfirmation (satisfaction). Naturally, most consumers would be dissatisfied with the product because it performed poorly, regardless of its positive disconfirmation. The ability of a product to meet initial expectations through performance in this case illustrates that satisfaction cannot be solely determined through the disconfirmation of expectations. Yi (1990) proposes that raising consumer expectations may cause both an increase (the perception of enhanced product performance) and a decrease (increase in the level of disconfirmation) in CS. Westbrook and Reilly (1983) also suggest that expectations may not be a good indicator of satisfaction. They hypothesize that consumers may be satisfied or dissatisfied with a particular aspect of the product in which no previous knowledge or expectations were formed. If this is in fact true, and no

previous expectations existed prior to purchase, the disconfirmation of expectations theory can be disproved as the only indicator of satisfaction.

Multiple authors have suggested that there has been a failure on the part of past researchers to consider other components which make up the overall feeling of satisfaction (Cadotte et al., 1987; Olshavsky and Spreng, 1989; Spreng et al., 1996; Tse and Wilton, 1988; Westbrook, 1987; Westbrook and Reilly, 1983). LaTour and Peat (1979a) suggest that prior experience on the part of the consumer may play the most important role in the determination of satisfaction. Expectations, therefore, may be a determinant of satisfaction; however consumers often categorize products based on familiar attributes within their evoked set. Other components such as desires and perceptions have also been suggested to play an interconnected role in the satisfaction process.

Desires

Desire is often thought of synonymously in relation to wants or needs. Researchers, however, argue that desires, wants, and needs are separate entities, each conveying a different emotion on the part of the consumer. Freund (1971, translated by Belk et al., 2003) suggests that needs are very specific—only certain criteria can meet a specific need. A consumer that "needs" a specific product uses a detailed categorization process; only instrumental products within the category are used to fulfill the specific need (Belk et al., 2003). Categorization is a mental process used to separate stimuli into manageable units. This allows the consumer to measure a certain amount of stimuli which are within their capacity to handle (Gutman, 1982).

Non-identical stimuli that are not contained within the specific category will not be used by the consumer to fulfill their specific need. Wants are generally defined as a personal preference structure. Belk et al. (2003) hypothesized that wants are controlled very closely by the mind; therefore, they are not impacted by the same passionate criteria that cause desire.

Desires, unlike needs and wants, encompass thought processes and emotions of the consumer in great detail. Belk et al. (2003) posit that desires address the direct interrelation between society and the individual. Consumer desire, then, is thought to be the passion connecting consumption fantasies on the part of the consumer and societal norms. Consumers are not limited in their desires; however, specific desires are generally impacted by societal norms. Girard (1987) also supports a similar thought process in his fundamental views of mimetic desire. Mimetic desire on the part of the consumer is based on societal acceptance. Consumers will purchase a product simply because it is looked upon very favorably by society. As societal norms begin to change, the specific product is no longer looked upon favorably causing the consumer to desire a product that their peers within society deem to be acceptable (Girard, 1977).

Spreng et al., (1996) also hypothesize that CS is not only determined by the disconfirmation of expectations theory, but also through the basic desires of the consumer (built on the previous work of Swan and Trawick, 1980; Westbrook and Reilly, 1983; and Spreng and Olshavsky, 1989, 1992). The desires-as-standard model developed by Spreng and Olshavsky (1989) provides the basis for the authors' use of desires as the evaluative standard used to measure product performance. This model suggests that the consumer not only evaluates the perception of performance of the product against their

expectations, but also against their desires. Consumer desires are based on the outcome and consequences they want to receive when purchasing a particular product. Upon consumption of a product, the consumer is able to determine whether or not their desire for the product produced a pleasing consequence.

Expectations are beliefs that a product will contain certain attributes or benefits, while desires are an evaluation that these beliefs will in turn lead to a realization of the consumer's values (Spreng et al., 1996). Desires congruency was shown by Spreng et al. (1996) to have a more significant affect on overall satisfaction than the expectations congruency. The study empirically showed that the impact of desires congruency was as important as that of expectations congruency when determining overall satisfaction.

Desires can often be separated from expectations as shown above, but in certain situations, desires and expectations can be highly correlated. Westbrook and Reilly (1983) characterize expectations in reference to beliefs. Consumer expectations in regard to a product may conflict with what they desire in the product. On occasion, however, expectations and desires overlap, because the consumer wishes to acquire a product or service that meets all of their needs. Frequently, products contain either desires or expectations singly, which is why desires and expectations have been separated. Westbrook and Reilly (1983) suggest that when desires and expectations are separated, values are the determinant of satisfaction—"in other words, success in relation to aspirations—not to expectations—seems primarily responsible for the positive affective response of satisfaction."

Affect

Westbrook and Reilly (1987) proposed that satisfaction judgments should be composed of not only cognitive/semantic beliefs, but also product/consumption-related affective responses. Research has shown that affective processes have a large impact on human motivations, as well as information processing and choice (Hoffman, 1986; Isen, 1984). Affect, which is composed of subjective feelings, has been studied primarily in the pre-purchase area of consumer behavior. Westbrook (1987) suggests that affect should in fact be looked at primarily after purchase. This would give the consumer the ability to select, use and/or consume the product, thereby giving them the ability to form various feelings in regard to the product. Emotion theories in the literature have addressed positive affect, and in some cases delight. Plutchik (1980) hypothesized that eight basic emotions compose affect (joy, acceptance, fear, surprise, sadness, disgust, anger and anticipation). Delight in this framework is composed of a mixture of joy and surprise. Westbrook and Oliver (1991) do not directly use delight as an emotion, but the dimension of pleasant surprise (made up of pleasure and surprise) very closely resembles delight as defined by Plutchik. Russell (1979,1980) used the axis of pleasantness/unpleasantness to determine valence properties. Delight in this framework is portrayed by elevated levels of pleasantness. Clore et al.,(1988) removed from their model of emotion nonvalenced emotions such as surprise and interest which were used by Plutchik (1980). Other authors have suggested that the emotion scale used by Plutchik (1980) and Izard (1977) focused too heavily on negative emotion (Oliver, 1992; Mano and Oliver, 1993). Richins (1997) concurs with Oliver and Mano in her review of emotion measures.

Delight

Recent research in the satisfaction literature has led to the belief that "higher levels" of satisfaction exist beyond that of positive disconfirmation (Oliver et al., 1997). The principle of customer delight (Schlossberg, 1990) is believed by many researchers within the industry to be the key to customer loyalty. Chandler (1989) describes customer delight as a reaction on the part of the consumer occurring when a product or service provides unexpected value or unanticipated satisfaction. The principle of customer delight has been well documented and accepted among practitioners, however, very little work has been done in the satisfaction literature to document the impact of customer delight on overall satisfaction.

Prior work by Woodruff et al. (1983, 1987) on experience-based norms led to the theory that satisfaction is an emotional response to the discrepancy between performance and a corresponding normative standard. Oliver (1989), based on his disconfirmation of expectations theory, suggested that categories of emotion may partially play a role in the judgment process leading to satisfaction. In an automobile study, Oliver and Westbrook (1993) have shown that there is indeed a separate state of delight that occurs, which is composed of high levels of joy and surprise. Delight as studied by Oliver et al. (1997) was shown to be a function of surprising consumption, arousal and positive affect. Delight was strongly correlated to positive affect; however, Oliver et al. (1997) suggest that while delight and satisfaction are correlated, they are in fact separate conceptual entities. The relation of satisfaction and delight can be directly associated with affect and arousal as described by Plutchik (1980), as well as Oliver et al. (1997). Oliver et al. (1997), however, convey the disclaimer that delight measures may have been overstated

in relation to affect. Swan and Trawick (1999) conducted a follow-up study based on Oliver et al.'s (1997) model of the antecedents of delight. Employing an ethnographic approach, the authors' were able to show that participant characteristics and situational factors played a role in the formation of delight. The limited knowledge held by participants prior to the study provided an opportunity for surprise to occur. Because interest creates a method in which arousal occurs, a stronger emotion such as delight can be felt.

Repurchase intentions

The occurrence of delight is directly related to positive affect in relation to consumption-based experiences on the part of the consumer. Oliver et al. (1997) suggest that the occurrence of delight within the consumption process may cause the consumer to strive for reoccurrences of this affective state. It therefore stands to reason that if delight and/or satisfaction are achieved, the consumer will be more likely to repurchase the product offering. Repurchase intentions are impacted by a variety of causes such as brand loyalty (Howard and Sheth, 1969; Fornell, 1976; Fornell and Westbrook, 1979), word-of-mouth communication (Richins, 1983; Westbrook, 1987), complaining behavior (Day and Landon, 1977; Bearden and Teel, 1983; Day, 1984), satisfaction/dissatisfaction with a brand (Oliver 1980b) and performance norms (Woodruff et al., 1983). Early studies in consumer behavior provided the conceptual framework used to show the relationship between repurchase intentions and the level of satisfaction attained by the consumer (Howard and Sheth, 1969). Further studies expanded on this framework, illustrating the positive association between repurchase intentions and satisfaction

(Halstead and Page, 1992; LaBarbera and Mazurski, 1983; Oliver, 1980, 1987) as well as the impact of dissatisfaction on repurchase intentions (Bearden and Teel, 1983).

Complaining behavior

The purchase of any product or service by the consumer gives rise to a certain risk of dissatisfaction. Andreasen and Best (1977) in looking at complaining behavior demonstrated that one in five purchase experiences result in dissatisfaction of some form. The failure of a consumer to utilize complaining behavior in a consumption situation thwarts the process of redress (Halstead and Page, 1992). Complaining, as suggested by various researchers may lead to greater possibilities of repurchase intention dependent upon the ease, speed, and acceptability of redress (Bearden and Oliver, 1985; Oliver, 1987; Gilly, 1987). Consumers that complain and receive sufficient redress have been shown to hold higher repurchase intentions than those who have not (Blodgett et al., 1993). In a study of large ticket items, repurchase intentions of complainers were lower than that of non-complainers (Halstead and Page 1992). This contradicts the work completed by Bearden and Oliver (1985) and Oliver (1987) on the increase of repurchase intentions based upon the satisfaction with the timeliness and level of redress.

Word-of-mouth

Resultant satisfaction after use of the good or service in addition to repurchase is the end result that is sought after by product/service providers. Researchers have modeled a direct link between satisfaction and repurchase intention (Halstead and Page, 1992; Kolodinsky, 1992). Word-of-mouth transmission is directly related to this principle. Organizational response to a voiced complaint has been shown to determine the amount of negative word-of-mouth transmission that occurs (Bearden and Oliver,

1985; Oliver and Swan, 1989). Consumers who feel that they have truly been wronged have no compunction regarding retaliation against the service provider. Negative word of mouth is often a common form of retaliation, used by the consumer. Andreasen (1988) and Richins (1980) have also shown that the speed and frequency of redress impacts negative word of mouth transmission. If a consumer has to continually complain to achieve redress, the probability of repurchase is very slim.

Regret

There is a certain level of risk associated with any consumption experience. Consumers in a consumption situation attempt to maximize gains and reduce losses through a careful selection process. If product failure does in fact occur, the consumer may regret their purchase. The emotion of regret is measured by the consumer based on the performance of the product in relation to a standard. Therefore, the evaluation of a purchase is dependent not only on the product purchased, but also on that which is not purchased (Cooke et al., 2001). The consumer will then measure satisfaction based on a comparison of what was received, versus what may have been attained had another product been purchased (Boles and Messick, 1995; Landman, 1987, Zeelenberg et al., 1998). Roese and Olson (1995b) have compiled a review of regret, documenting the association between regret and satisfaction; namely the inverse relationship between the two.

Cognitive appraisal theories have been studied in great detail such as emotion and its motivational basis (Roseman 1979), combination of dimensions that differentiate among emotions (Smith and Ellsworth 1985), five functionally defined subsystems of emotions (Scherer 1984a,) and emotion resulting from events and outcomes (Weiner

1982). The cognitive appraisal theory elucidates the relationship between cognitive processing and information and their impact on emotional states. Clore et al. (1987) classify emotions as valenced reactions of perceptions in regard to the specific situation in which the consumer is participating. Clore et al., (1988) reveal that emotions are directly related to cognitive processes. Attention, then, is focused on one of three things: events, agents, or objects in relation to goal attainment. Valenced reactions are used by the consumer to determine the relevance to self, versus relevance to others. Because humans are very goal-oriented, emotion eliciting stimuli such as satisfaction or regret are very relevant. Cognitive appraisals occur in one of three ways; expectations disconfirmation, desires congruency, and surprise. Surprise, however, is not an emotion, due to its inability to be valenced or measured.

Future Research

This review focused on articles pertaining to satisfaction, delight, and repurchase intention. It has long been understood that satisfaction has an impact on repurchase intention, but satisfaction is not fully responsible for future purchase intentions. Delight in combination with satisfaction has been found to be strongly related to pleasure and disconfirmation (Oliver et al., 1997). Our goal through this research was to evaluate the moderating effect of plant knowledge (high or low) on the satisfaction to repurchase intention path as well as the delight to repurchase intention path. Research on the impact of knowledge as a moderating variable has been shown to impact the likelihood of consumer defection and inadvertently repurchase intention (Capraro et al., 2003). While the effects of knowledge as a moderating variable have been studied, researchers have yet to study the impact of knowledge on the direct effects of satisfaction and delight on

repurchase intention. Relationships between these constructs present a possible avenue for research that may have significant impacts on the consumption experience.

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SECTION III

DELIGHTED CONSUMERS BUY AGAIN

JOURNAL OF CONSUMER SATISFACTION, DISSATISFACTION, AND COMPLAINING BEHAVIOR

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Delighted Consumers Buy Again

This paper extends the current research on the role of moderating variables in satisfaction research. Our research tests the role of prior plant knowledge on repurchase intention. Knowledge level is proposed to be a potential moderating variable of the relationship between satisfaction and repurchase intention as well as delight and repurchase intention. An Internet survey was conducted to examine an actual purchase experience, in this case the initial purchase and the actual performance of the plant following purchase. Our results show that knowledge level did not have a moderating effect on the delight to repurchase intention path, nor did it moderate the satisfaction to repurchase intention path. The delight to repurchase intention path, however, had a significant impact on repurchase intention. Results were consistent with existing literature, indicating that greater emphasis should be placed on delighting the consumer, rather than merely satisfying them.

INTRODUCTION

The consumption cycle has been studied in detail by various researchers, from prepurchase deliberation, to choice, consumption, and finally evaluation. Several researchers have suggested that knowledge about a particular product or product category affects specific decision processes that in turn influence the amount of information that is searched for in prepurchase deliberations (Alba and Hutchinson 1987; Brucks 1985; Huffman and Houston 1993). Knowledge level has also been proposed to affect decision-making behaviors (Brucks 1985), the formation of loyalty (Chiou et al. 2002), the evaluation of alternatives through information-processing (Bettman 1979; Fishbein and Ajzen 1975), and the level or likelihood of customer defection (Capraro et al. 2003). Knowledge in regard to a specific product may also play a role in the formation of satisfaction, specifically when expectancy disconfirmation is used to measure satisfaction level. Mittal and Kamakura (2001) argue that a link between satisfaction and repurchase intention exists, but this link varies according to consumer characteristics and is based on satisfaction thresholds and response bias. Although empirical research has been conducted on the link between satisfaction and repurchase intention on durable goods (Mittal and Kamakura 2001; Reichheld and Teal 1996) and the moderating role of knowledge on these constructs (Capraro et al. 2003), research is still lacking with regard to the role that these constructs play in the consumption cycle of non-durable goods. The link between delight and behavioral intention has been studied primarily in the service context rather than in a product consumption context because the moderating role of services can be measured more easily based on consumer patronization (Oliver et al. 1997).

In this article, we develop and test a model that examines the level of knowledge (high or low) of the consumer, and its moderating effect on satisfaction, delight, and repurchase intention. Capraro et al. (2003) posit in their study of the moderating role of knowledge that the level of knowledge directly affects defection rates above that of satisfaction. We hypothesize, similarly, that the level of knowledge the consumer possesses, when coupled with feelings of satisfaction and delight, moderates further repurchase intention. This article attempts to further our understanding of the moderating role of knowledge in the consumption cycle and its impact on postpurchase deliberations.

Product Knowledge

Early research into the area of consumer knowledge indicated that the knowledge construct was composed of a single independent measure. However, as researchers began investigating the knowledge construct, it became apparent that knowledge was comprised of several independent measures, which led researchers to hypothesize that multi-dimensional accounts of the knowledge variable are needed (Alba and Hutchinson 1987; Bettman 1986; Brucks 1986). Alba and Hutchinson (1987) proposed, based on work by Jacoby et al. (1986), that knowledge is comprised of two components: familiarity and expertise. Familiarity is commonly defined as the number of experiences the consumer has undergone within a purchase situation; while expertise is the ability to execute these product-related experiences effectively. For the purpose of brevity, we will look primarily at familiarity and its impact upon satisfaction and future intentions.

It is commonly asserted by researchers that as familiarity increases, so too does consumer expertise (Söderlund 2002). This assertion becomes important when we begin to look at postpurchase responses in regard to evaluation and behavioral intentions such

as repurchase intent. Measurement of consumer evaluation with regard to postpurchase criteria is critical because of the positive relationship between postpurchase evaluations and future behavior. Consumers who purchase durable goods have an extended time frame in which they form postpurchase evaluations based on the long-term performance of the product. Non-durable or perishable goods, however, have a shorter time frame in which judgments and evaluations can be based. Several researchers suggest that as the number of purchase-related experiences or familiarity with a product increases, knowledge does as well. This would indicate that consumers who purchase non-durable goods may in fact have comparable amounts of time in which to form their evaluations and judgments (Söderlund 2002). When looking at postpurchase evaluations, researchers naturally move to the impact of high or low knowledge on these evaluations. Knowledge has been assessed primarily by the correspondence between subjective (self-reported expertise) and objective (factual tests) knowledge (Park et al. 1994; Capraro et al. 2003).

In this study, we hypothesize that in relation to a plant product, the consumer uses objective knowledge that they possess to guide prepurchase search. Upon purchase, a cognitive evaluation process occurs in which post-consumption beliefs in regard to attributes or outcomes realized are measured against the preconceived notions or expectations held by the consumer. The appraisal of the belief structure prior to and after consumption yields expectancy disconfirmation. If the performance of the plant product exceeds expectation, satisfaction may result, yielding a positive expectancy disconfirmation. From a sales standpoint, it is important for management to understand the integral role of knowledge on postpurchase evaluation made by the consumer. The

information that is disseminated to the consumer can influence knowledge levels, and in turn impact repurchase intention.

Delight

Satisfaction has been found to be a basic foundation for customer retention, but recently researchers have begun to address the importance of delighting the customer in addition to satisfying them (Oliver et al. 1997; Williams and Anderson 1999). Research in the area of consumer satisfaction has long focused on the relationship with service quality (Bolton and Drew 1991b). Through the studies of the interrelationships between customer satisfaction and service quality, behavioral results emerged indicating the existence of "higher levels" of satisfaction known as "customer delight" (Oliver et al. 1997). Customer delight has been defined as "the reaction of customers when they receive a service or product that not only satisfies, but provides unexpected value or unanticipated satisfaction" (Chandler 1989), the combination of joy and surprise (Plutchik 1980), a sense of relatedness between the customer and the firm that evokes feelings of joy (Kumar et al. 2001), and the key to customer loyalty (Schlossberg 1990). The formation of delight as theorized by Oliver et al. (1997) occurs through the following sequence: high levels of performance initiate arousal, which leads to pleasure, and ultimately delight. These findings, based upon Plutchik's "psycho-evolutionary" framework, indicate that the highest levels of joy and surprise led to scores which corresponded with the label "delighted" in the study. Kumar et al. (2001), however, suggest that delight may occur under two different circumstances. Delight may occur as a result of joy and surprise (arousal) as suggested by Plutchik (1980) and Oliver et al. (1997), or simply as a result of joy (Kumar et al. 2001).

The study of delight is primarily rooted in the study of consumer loyalty. Satisfaction has often been considered the antecedent to consumer loyalty. However, Reichheld (1996) showed that while consumers may state that they are satisfied, they may not be loyal. Loyalty in Reichheld's study occurred only when consumers were completely satisfied; these consumers were labeled "delighted consumers." Varying levels of satisfaction occur, indicating that only when satisfaction is complete does delight occur. Delight as studied by Oliver et al. (1997) was shown to be a function of surprising consumption, arousal and positive affect. Delight in this study was strongly correlated with positive affect; however, the authors suggest that while delight and satisfaction are correlated, they are in fact separate conceptual entities. The relationship between satisfaction and delight can be directly associated with affect and arousal as described by Plutchik (1980) and Oliver et al. (1997).

Repurchase intention

The occurrence of delight is directly related to positive affect in relation to consumption-based experiences on the part of the consumer. Oliver et al. (1997) suggest that the occurrence of delight within the consumption process may cause the consumer to strive for reoccurrences of this affective state. Thus, if delight and/or satisfaction are achieved, the consumer will be more likely to repurchase the product. We hypothesize from these studies that the satisfaction and delight constructs will both have a positive impact on repurchase intention; however, delight will have a greater impact than satisfaction because it is an emotion, which is more strongly held by the consumer than the feeling of satisfaction.

H1: Satisfaction and delight with both have a positive effect on repurchase intention.

H2: Delight will have a greater impact on repurchase intention than will satisfaction.

All businesses are, or should be interested in the consumers' evaluation, and in turn retention of their customer base. While businesses are intrinsically interested in consumer retention, there is often a gap between the perception of consumer satisfaction on the part of long-term consumers, and their actual level of satisfaction. A study compiled by Reinartz and Kumar (2000) indicates that contradictory to Bolton (1998), long-term consumers do not pay higher prices for products than do short-term consumers. The overhead cost, when comparing groups was nonsignificant. Söderlund (2002) suggests that high familiarity may lead to a more demanding consumer who does not react to stimuli in the same manner as that of a low familiarity consumer. We hypothesize, therefore, that consumers who are more knowledgeable in regard to plant products prior to purchase will have higher expectations and beliefs in regard to performance levels. This higher level of knowledge will make them more difficult to satisfy, resulting in lower intention to repurchase.

H3a: Satisfaction will have a greater effect on repurchase intention for consumers with low levels of knowledge and a lesser effect for those with high levels of knowledge.

H3b: A consumer with high levels of knowledge with regard to a plant product will be harder to delight than a consumer with lower levels of knowledge.

MATERIALS AND METHODS

Data Collection

In July 2004, an Internet study was conducted by Survey Sampling, Int. (Fairfield, CT.), a professional survey company specializing in Internet survey procedures. Survey Sampling, Int. randomly selected 15,000 individuals from their eLITe database which is composed of thousands of individual respondents who are collected through a variety of permission-based marketing sources. Potential respondents were screened prior to survey implementation through a series of questions regarding their plant purchases and use characteristics of those plants in the past year. Respondents who qualified were invited to participate in the survey if they had (a) purchased at least one indoor flowering potted plant for their home or office, and if they were (b) at least 18 years of age. Qualified respondents were monitored by Survey Sampling using a FilemakerPro database (Santa Clara, CA). Individuals meeting the qualifying criteria were automatically sent an email invitation with an active link to a web site to complete the survey. To ensure survey validity, cookies were placed on the respondent's browser which inhibited multiple submissions by qualified respondents, as well as resubmissions by respondents who received qualification denials. A $5 honorarium from Amazon.com Inc., was used as an incentive for those qualified individuals to fully complete the survey. If multiple sections were left blank within the survey, an error message appeared, indicating that insufficient information was given by the respondent. Upon completion of the survey, a text box appeared asking respondents to supply a valid email account to which the honorarium could be sent. Respondents were assured that the email address supplied would be secure, and that correspondence would pertain to the honorarium only. Approval from

the University Committee for Research Involving Human Subjects was obtained prior to data collection.

On the predetermined date, 15,000 invitations were sent out to prescreened members of the eLITe database. In a seven hour period, 659 qualified respondents completed the survey. The survey was terminated after yielding what was considered an acceptable number of respondents by the researchers. Incomplete and unusable surveys were removed, yielding a total of 629 acceptable surveys.

Respondents ranged in age from 19 to 87 years, with a mean age of 40 years (2.9%) and a mode of 39 years (4.0%). Respondents were primarily female (79%), approximately 82% had completed some form of formal education beyond that of high school, 36% held a Bachelor's degree or higher; 73% of respondents had a 2003 household income level ranging from $25,001-$100,000. The mode household income level ranged from $25,001-$50,000 (34%). Among the participating households surveyed, 63% were comprised of 2 adults and 45% of the participants had no dependents. Participants represented a significant cross section of the U.S. population: while 44 states were represented in the survey, a majority of respondents were from the Midwest region (54%).

Measurement

The attributes measured for each construct were satisfaction, delight, knowledge level, and repurchase intention. Knowledge level was used as the moderating variable to determine whether or not satisfaction and/or delight have a significant impact on repurchase intention. All constructs were measured using multiple-item scales.

Overall satisfaction measures

The satisfaction construct was measured using four seven-point multi-item scales adapted from a prior study (Spreng et al. 1996). The measures created by Spreng et al. (1996) reflect the valence characteristics as suggested by Oliver (1989). Multiple-item measures have been used extensively throughout the satisfaction literature to capture the various dimensions of the satisfaction construct (Yi 1990). Satisfaction measures were introduced to the respondents in the following manner: "Choose a number that most closely reflects how you felt about the performance of the indoor flowering plant." Four questions ensued, with scales anchored as "Very satisfied/Very dissatisfied," "Very pleased/Very displeased," "Contented/Frustrated", and "Delighted/Terrible." The scale containing the "Delighted/Terrible" anchors was dropped, because the authors felt that this measure conflicted with the measures of the delight construct.

Delight measures

The delight construct was measured using two seven-point scales, followed by a question measuring consumer perceptions. Delight was measured by asking respondents to "Please answer the following questions based on the outcome of your purchase." The first question asked, "I am content with the purchase of my indoor flowering potted plant" followed by a scale anchored by "Strongly disagree/Strongly agree." Desirability of the outcome was measured with a scale anchored by "Very undesirable/Very desirable," and feelings toward the product were measured using a set of descriptors that represent the range of emotions commonly experienced in consumption situations. Our scale included descriptors from Richins' (1997) Consumption Emotion Set: anger, frustration, contentment, delight, and disappointment. Richins (1997) did not include

delight as a descriptive component within her study, however joy and surprise (Plutchik 1980) were both present indicating that delight was also an emotion felt within a consumption experience.

Knowledge Level

Knowledge level was measured using three seven-point scales based on consumer's perceived knowledge of plants. Knowledge level was measured by asking respondents to "Choose a number that most closely reflects how you feel about your knowledge pertaining to plants." The first question asked, "How would you rate your knowledge about caring for flowering shrubs?" The question was anchored by a "Very little/Very much" scale. The second question asked, "In comparison to the average person, how would you rate your level of knowledge with flowering plants?" Knowledge level was measured using a scale of "No prior plant knowledge/Large amount of plant knowledge." The final question asked, "What level of maintenance do you feel the indoor flowering potted plant required inside the home?" Knowledge of maintenance level was measured using a "Low/High" scale.

Repurchase Intention

Repurchase intentions were measured based upon the probability that the consumer would buy the same or similar plant product again when their prior experiences with a similar plant product were taken into account. Repurchase intentions were measured with four seven-point scales determining the probability and likelihood of repurchase intent. The likelihood of repurchase of a specific plant and probability of repurchase of a similar plant scales were anchored by, "Very low/Very high" categories, with a neutral response as the midpoint. The definitive statement, "I will purchase a

flowering potted plant the next time I need a gift/something for myself" was anchored with a Disagree/Agree scale. The final question pertained to the consumer's views on gardening; "Based on your experience this spring, how likely are you to continue to garden?" The scale ranged from "Very unlikely" to "Very likely."

RESULTS

The hypotheses were tested by estimating a two-group structural model (Figure 1) for satisfaction, delight, and repurchase intention. The groups were defined by the respondent's answer in regard to their perceived knowledge of plants. Knowledge of plants was used as a moderating variable, thereby determining responses to each question for the specific attributes. Those above the median were classified as high in knowledge ($\geq$5 on a 7-point scale) (Group 2), while those below the median were classified as low in knowledge ($\leq$3 on a 7-point scale) (Group 1). The remaining subjects (n= 211) at the median (4) were dropped from each analysis to more clearly differentiate subjects with low and high knowledge. Satisfaction and delight were operationalized as multi-item latent constructs. Repurchase intention was operationalized as a latent construct with four indicators. Satisfaction was operationalized with three indicators, while delight was operationalized with two indicators.

Measurement Results

Measurement properties were assessed using confirmatory factor analysis (CFA) and Cronbach's alpha to determine validity and reliability of each multiple-measure construct. The fits of these models were acceptable based upon accepted fit statistics (Table 1). Satisfaction, delight, and repurchase intention are composed of multiple measures, allowing squared multiple correlations to be calculated for each of the

constructs. Reliabilities ranged from 0.80 to 0.96, exceeding the lower limit of 0.70 set by Nunnally (1978) for such scales.

Reliability and validity were tested using CFA estimates compiled by LISREL 8.54 (Jöreskog and Sörbom 2003). Model fit was estimated using global goodness of fit statistics such as normed fit index (NFI) = 0.97, comparative fit index (CFI) = 0.97, goodness of fit index (GFI) = 0.93, and root mean square error of approximation (RMSEA) = 0.12. The chi-square estimate of 181.44 (d.f. = 48) in this model indicates poor fit. However, Bollen (1989) has suggested that several other fit measures such as the NFI, GFI, and AGFI supplement the chi-square statistic, providing alternative estimates of the overall fit of the model. In this case, our goodness of fit measures fall within the acceptable levels within the literature (Hu and Bentler 1999).

Discriminant validity was tested using correlations between the constructs. Correlations were constrained individually to be equal to 1 to determine the distinctness of the constructs both within and between groups. In this study, all tests indicated acceptable discriminant validity.

Hypothesis Tests

A two-group model (high and low knowledge) was estimated for each of the construct paths. The constructs were comprised of multiple item measures; satisfaction was comprised of 3 indicators, delight was comprised of 2 indicators, and repurchase intention was comprised of 4 indicators. Initially, a model was constructed in which the gammas for repurchase intention were free across groups. A second model was then constructed in which the gammas were constrained to be invariant across groups. The freeing/constraining of parameters was applied to the model specifically to test the impact

of knowledge level as a moderating variable between satisfaction and repurchase intention as well as delight and repurchase intention. There was a significant increase in chi-square within groups, indicating that the satisfaction to repurchase intention and delight to repurchase intention paths are not equal (Table 2).

Hypothesis 1 stated that repurchase intention will be positively impacted by satisfaction and delight. Table 1 shows that satisfaction does not impact repurchase intention; since the path is not significant in either group. Conversely, delight has a significant positive impact on repurchase intention. The results show partial support for hypothesis 1.

Hypothesis 2 stated that delight will have a greater impact on repurchase intention than will satisfaction. As shown in Table 1, delight had a significant impact on repurchase intention in both the high and low knowledge groups, while the satisfaction to repurchase intention path was not significant in either group. Thus hypothesis 2 is supported.

Hypothesis 3a predicted that a consumer who possesses higher levels of knowledge is harder to satisfy than a consumer who possesses lower levels of knowledge. Table 2 shows the differences in chi-square and the degrees-of-freedom measures for each of the path estimates in both groups. The satisfaction and delight constructs are significantly different from each other within each group, allowing us to estimate the paths from these constructs individually (Table 2). The path from satisfaction to repurchase intention is not significant in either the high or the low knowledge group, and the chi-square difference test showed the paths were equal in both groups. Thus, hypothesis 3a is not supported.

Hypothesis 3b predicted that consumers with higher levels of knowledge are harder to delight than those with lower levels of knowledge. The path from delight to repurchase intention is significant in both the high and low knowledge group (Table 1). However, the moderating effect of knowledge level upon both groups was found. Knowledge level does not impact the formation of delight, thus support for hypothesis 3b was not found.

DISCUSSION

Overall there was support for our hypothesis that delight impacts the formation of repurchase intent. Various authors have suggested that satisfaction research would be furthered if moderating variables were studied in greater detail (Oliver and Bearden 1983). Spreng and Page (2001) suggested that consumer knowledge may be one such moderating variable that should be studied in greater detail. Prior studies have looked at the satisfaction-knowledge-likelihood of defection link (Capraro et al. 2003) as well as the moderating effect of high and low levels of knowledge between satisfaction and loyalty formation (Chiou et al. 2002). In the case of the former (Capraro et al. 2003), little of the effect of satisfaction on likelihood of defection was mediated by level of knowledge in regard to alternatives. Our findings show similar results, specifically that the moderating role of knowledge level does not have a significant impact on the satisfaction-repurchase intention path, or the delight-repurchase intention path. The findings from our study indicate that delight plays an integral role in repurchase intention. Our results are similar to Oliver et al. (1997) in that satisfaction and delight are shown to be separate conceptual entities.

Clearly, businesses need to focus on more than customer satisfaction. While satisfaction metrics are important in decisions for products and services, customer retention and loyalty need additional metrics. For plants, product knowledge significantly impacted delight and repurchase intentions. This means that for businesses selling plants, they need to go beyond ordinary customer satisfaction and create a "wow" effect in customer delight. In this manner, they may be more able or better prepared to retain customers. It also implies that businesses may need additional metrics for the more knowledgeable customer, to measure his/her satisfaction and delight.

Directions for future research

The relationships between satisfaction, delight, and repurchase intention have been explored in relation to knowledge level as a moderator between the constructs. This study investigated a limited component of the knowledge framework and its role as a moderating variable. Future researchers may want to explore the moderating effect of knowledge on a single, specific plant, rather than on a general houseplant category. While a consumer may possess considerable knowledge in regard to a specific plant or plant categories, it can be argued that this knowledge is not homogeneous across all plant categories. Therefore, the moderating effect of plant knowledge on satisfaction and repurchase intention may not have been an accurate measure of the true impact of knowledge on post-consumptive responses.

The cost of the plant product may also have an impact on post-consumptive processes. A certain level of risk is associated with any consumption experience. This level of risk can be compounded when price sensitivity becomes an issue. Zaichkowsky (1985) demonstrated the integration between information search and product

involvement. The more involved the consumer is with a product, the greater their propensity to search for information across product groups. Thus, the level of involvement determines how concerned a consumer is with price. Those consumers highly involved with a product may be less sensitive to price, while consumers who are not as involved with a product, (e.g. a Christmas poinsettia), may be more concerned with price. Future research into the impact of cost on the post-consumptive processes a consumer undergoes while purchasing plant products may also be merited.

Table 1. Standardized Effects (t Values) of Satisfaction and Delight on Repurchase Intention.

Path	Unconstrained Model	Group Scores	
		Group 1	Group 2
Satisfaction → repurchase intention		-0.10 (-0.59)	0.08 (0.82)
Delight → repurchase intention		0.78 (5.44)	0.90 (10.15)
Chi-square	181.44	61.82	119.62
Degrees-of-freedom	48	24	24
NFI	0.97	0.94	0.97
CFI	0.97	0.96	0.98
GFI	0.93	0.86	0.93
AGFI	-----	0.75	0.86
SRMR	0.04	0.05	0.04
RMSEA	0.12	0.13	0.11

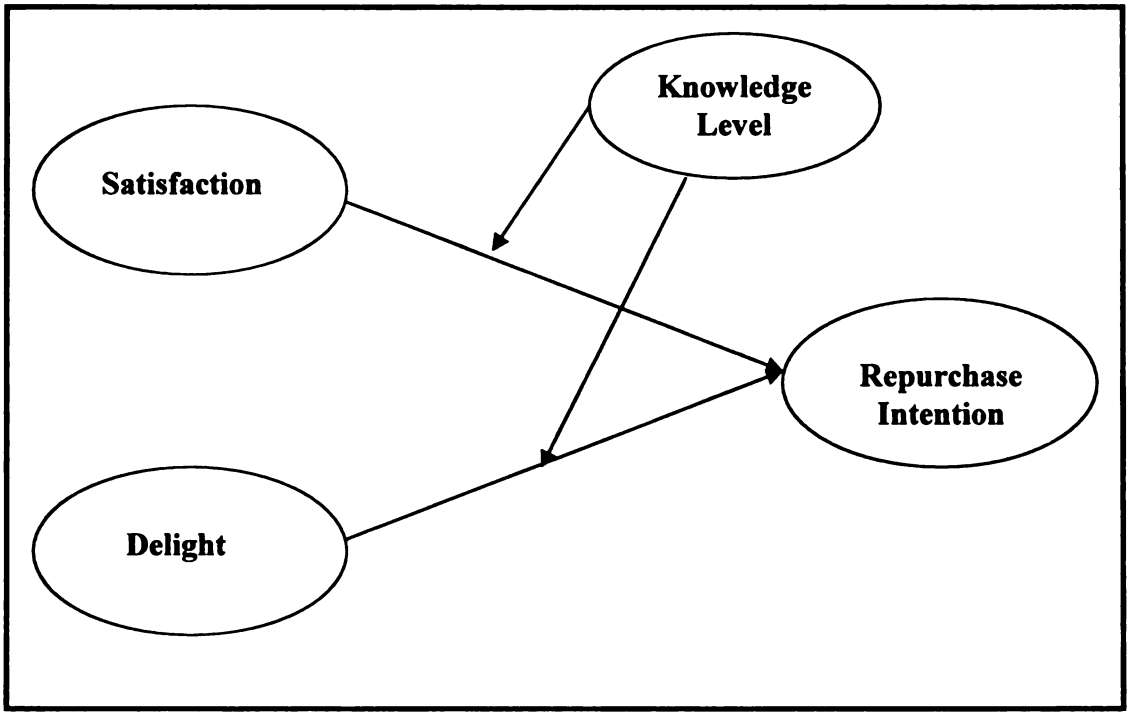
Table 2. Within Group Estimates of the Constructs Based on the Proposed Knowledge Level of the Consumer (Group 1 = Low Knowledge; Group 2 = High Knowledge).

	χ^2	df		χ^2	df
Group 1 Constrained	74.04	25	Group 2 Constrained	139.44	25
Group 1 Unconstrained	61.82	24	Group 2 Unconstrained	119.62	24
Difference	12.22	1	Difference	19.82	1

Table 3. Between Group Constraints.

	Satisfaction → Repurchase Intention		Delight → Repurchase Intention	
	χ^2	df	χ^2	df
2 Group Constrained	184.02	49	179.11	49
2 Group Unconstrained	181.44	48	178.62	48
Difference	2.58	1	0.49	1

Figure 1: Proposed repurchase intention model with knowledge as a moderating variable.



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APPENDICES

Appendix A

Repositioning Syringa meyeri as a Profitable Dual-Use Flowering Potted Plant

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Repositioning *Syringa meyeri* as a Profitable Dual-Use Flowering Plant

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Note

Additional Index Words. consumer, dual-use, dwarf Korean lilac, marketing

Abstract. Flowering potted plants have reached a mature stage in the product life cycle. In this stage, sales are flat and relative profits are marginal. Perceptual mapping studies conducted at Michigan State University indicated that of 15 species studied, *Syringa meyeri* (L.) was viewed by consumers as a favorite landscape plant. It also exhibited some characteristics that may make it suitable for forcing for indoor enjoyment, establishing its potential as a dual-use (indoor and outdoor) plant, if repositioned to help improve flowering plant sales. Two-hundred-fifty dormant cuttings were forced to flower on 5 May 2004, when plants and point-of-purchase materials were transported to two volunteer retail outlets for Mother's Day sales. More than half of the lilac plants were sold from all retail outlets (n=135), but very few (n=17) consumers completed the on-line survey. Sales of >50% of the product in the first time on the market is an indication of consumer acceptability, but more research would be helpful to determine important product attributes and plant performance.

Plants, similar to durable goods, undergo a progression through the stages of the product life cycle. Flowering potted plants ($857 million in wholesale sales in 2003), a subdivision of floriculture ($5.15 billion), have reached a mature stage in the product life cycle (USDA, 2004). In this stage, sales are flat and relative profits are marginal. Perceptual mapping studies conducted at Michigan State University indicated that of 15 species studied, *Syringa meyeri* (L.) was viewed by consumers as a favorite landscape plant. It also exhibited some characteristics that may make it suitable for forcing for indoor enjoyment, establishing its potential as a dual-use (indoor and outdoor) plant.

The dwarf Korean lilac (*S. meyeri* 'Palibin') was programmed to flower in prior studies as a dual-use, container-grown florist crop. The moderately-dwarf size and early flowering on young wood makes this cultivar an ideal candidate for dual-use (Green, 1984). Repositioning a flowering shrub, such as the dwarf Korean lilac as a dual-use plant, can benefit both the grower and the consumer. For the grower, repositioning a woody perennial as an indoor flowering potted plant creates a product that is potentially disposable. For the consumer it creates a way to have a plant, which is normally too large, in their home. Added benefits are seen by the consumer if the lilac is planted outdoors, thus serving a dual use.

The objective of this study was to characterize and quantify potential flowering shrub consumers by conducting an Internet study of consumers who purchased a flowering lilac. Purchasers of hardy lilacs were profiled to determine their demographic (age, education, etc.) and behavioral (gardening habits) characteristics. These characteristics determine the potential size of the consumer group and market potential.

This study was conducted at the Michigan State University research greenhouses, East Lansing, MI. On 5 November 2003, 250 dormant *S. meyeri* 'Palibin' cuttings were placed in a cooler at 5 °C under approximately 9 h of supplemental light for five weeks, to ensure that all plants were developmentally at the same physiological state upon forcing. On 15 December 2003, plants were removed from the cooler and transplanted from 5.6 cm liners to 15 cm azalea pots. Plants were then placed in the greenhouse at 20 °C under a 16 h photoperiod for 12 weeks, which is sufficient to induce flowering. First vegetative bud break occurred on 24 December 2003. Average bud break occurred 8-10 d after forcing began. Two applications of daminozide at 2500 $mg \cdot L^{-1}$ were applied during the trial at 3 and 6 weeks for height control.

On 1 March 2004, lilacs were moved to a 5 °C cooler under approximately 9 h of supplemental light for five weeks. Remaining foliage was removed by hand after three weeks in the cooler. Lilacs were removed from the cooler after five weeks and placed in the greenhouse under 20 °C and a 16 h photoperiod for 4 weeks. On average, first bloom opened in 30 d. On 5 May 2004, lilacs were transported to test sites to target Mother's Day sales. Mother's Day ranks second in terms of flowering potted plant sales, behind Christmas, and accounts for over 20% of all sales (Soc. Amer. Flor., 2004).

The flowering lilacs were test-marketed in five free-standing Detroit, MI garden centers and retail greenhouses that volunteered to participate in the study. Individual care tags were inserted in each container; a second tag requested that the customer participate in an on-line survey. On the front of the "request tag" purchasers were invited to log-on to the website using the unique code affixed to the back of the "request tag." The unique code enabled researchers to control who had access to the survey (only purchasers of the

lilacs) and enabled those purchasers to complete the survey one time only. This methodology was successfully used in studies regarding flowering plant purchases in the past (Dennis et al., 2005; Behe et al. 2005; Simonne et al., 2005).

The survey was comprised of questions determining whether or not consumers were aware of the dual-use characteristics of the lilac plants, their expectations of plant performance, and their plant knowledge. Upon completion of the first survey, consumers were invited to participate in a second survey three weeks later. This survey was composed of questions to determine consumer satisfaction with the lilac and flowering time, the importance of a guarantee, the importance of dual-use characteristics, and whether or not the consumer regretted the purchase.

Results showed that while more than half of the lilac plants were sold from all retail outlets (n=135), very few (n=17) consumers completed the on-line survey, even with a $5 incentive. If each plant was sold to a different customer, this would yield a 12.6% response rate. Respondents ranged in age from 20 to 81 years with a mean age of 43 years. Respondents were predominantly female (88%) and had completed some college (mean of 14 years of education). Seventy-six percent of the participants had a 2003 household income of $25,001 to $100,000 with a mode of $25,001 to $50,000 (41%). The demographic profiles of these consumers indicate that purchaser's income level and education was similar to the U.S. population on average. Fifty-two percent of the American population over age 25 had completed some college or more (Census, 2004) and median household income in the Midwest was $43,622 in 2002 (DeNavas et al., 2002). A larger number of plants may have improved the number of responses. Future researchers are also encouraged to examine a broader range of target dates for

sales, including the Easter holiday [ranking third with 18% of sales (Soc. of Amer. Flor., 2004)]. The familiarity of the general public with a lilac plant in addition to the fragrance of the lilac might be an added value for which some consumers are willing to pay.

Although most plants were sold, purchasers were not interested in participating in the consumer survey, even with a sizeable incentive. If consumer acceptability was measured in terms of sales, the plant could be considered acceptable with >50% sold in the first market window. However, more consumer research is needed to determine the product attributes that were important to purchasers and how well the product performed for them in the home and garden.

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Appendix B

Survey instrument used for satisfaction, delight, and repurchase intention survey at Michigan State University 12 July 2004.

Title of Survey:
Consumer Perceptions of Indoor Flowering Potted Plants Survey

Michigan State University

Department of Horticulture

Consumer Perceptions of Indoor Flowering Potted Plants Survey

A group of researchers in the Department of Horticulture at Michigan State University is conducting a survey of customers who purchased certain types of ornamental plants during the last year. To determine whether you qualify to take the survey, check the buttons below that indicate the plant purchases you made last year.

Please check all products you purchased during the 2004 spring season for your own use and enjoyment.

Vegetable or herb transplants	○ yes	○ no
Hanging Basket	○ yes	○ no
Flowering Indoor Potted Plant	○ yes	○ no
Outdoor Perennial (any kind)	○ yes	○ no
Flat of bedding plants	○ yes	○ no
Indoor Foliage Plant	○ yes	○ no

Determine Whether I Qualify

Below are several questions regarding how satisfied you were with the purchase and enjoyment of the indoor flowering potted plant you bought this season (2004 spring/summer) unless otherwise noted.

How long did you expect the indoor flowering potted plant to flower?

○ 0-7 days ○ 8-14 days ○ 15-21 days ○ 22 or more days

How long did your flowers actually last?

○ 0-7 days ○ 8-14 days ○ 15-21 days ○ 22 or more days

What type of plant did you purchase?

Below are several questions regarding the purchase and flowering characteristics associated with your indoor flowering potted plant.

Satisfaction with indoor flowering potted plant

For each row, choose a number that most closely reflects how you felt about the performance of the indoor flowering potted plant.

Very dissatisfied	○ 1	○ 2	○ 3	**Neutral** ○ 4	○ 5	○ 6	**Very satisfied** ○ 7
Very displeased	○ 1	○ 2	○ 3	**Neutral** ○ 4	○ 5	○ 6	**Very pleased** ○ 7
Frustrated	○ 1	○ 2	○ 3	**Neutral** ○ 4	○ 5	○ 6	**Contented** ○ 7
Terrible	○ 1	○ 2	○ 3	**Neutral** ○ 4	○ 5	○ 6	**Delighted** ○ 7
Disappointed	○ 1	○ 2	○ 3	**Neutral** ○ 4	○ 5	○ 6	**Happy** ○ 7

Satisfaction with flowering time

How satisfied were you with the length of time the plant was in bloom?

Very dissatisfied			**Neutral**			**Very satisfied**
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
Very displeased			**Neutral**			**Very pleased**
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
Terrible			**Neutral**			**Delighted**
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
Disappointed			**Neutral**			**Happy**
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Regret

Based on your experience this spring, what are your feelings concernng the decision to buy this indoor flowering potted plant?

Regrettable decision			**Neutral**			**Excellent decision**
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
Many doubts about this choice						**No doubts about this choice**
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
Sorry I made the decision			**Neutral**			**Glad I made the decision**
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7
I should have chosen another			**Neutral**			**My choice was correct**
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Below are several questions regarding how satisfied you were with the purchase and enjoyment of the indoor flowering potted plant you bought this season (2004 spring/summer) unless otherwise noted.

Repurchase Intentions

For each statement, choose a number that most closely reflects how you feel about repurchasing the same or similar indoor flowering potted plant next year.

The likelihood that I will purchase this kind of indoor flowering potted plant again is:

Very low			Neutral			Very high
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

The probability that I would consider buying another kind of indoor flowering potted plant again is:

Very low			Neutral			Very high
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

I will purchase a flowering potted plant the next time I need a gift/something for myself:

Disagree			Neutral			Agree
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Based on your experience this spring, how likely are you to continue to garden?

Very unlikely			Some intention to garden again			Very likely
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Guarantee

Did the retail outlet (home center, supermarket, florist, garden center, mass merchandiser, or retail nursery) have a guarantee on the flowering potted plant you purchased? *(If yes move on to the following question. If no, skip the next two questions and move to "How much regret did you feel...")*

○ Yes ○ No

How important was the guarantee in deciding to shop at this retail location?

○ Not at all important ○ Somewhat important ○ Very important ○ Extremely important

If the plant(s) were guaranteed, to what extent was the guarantee a deciding factor in choosing that specific plant?

Not a factor **Neutral** **Definitely a factor**

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7

Delight

Please answer the following questions, based on your perceptions of the outcome of your purchase.

I am content with the purchase of my indoor flowering potted plant?

Strongly disagree **Neutral** **Strongly agree**

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7

How desirable was the outcome of the indoor flowering potted plant you purchased this spring?

Very undesirable **Neutral** **Very desirable**

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7

At this point in time, which word best describes your feelings toward the indoor flowering potted plant?

○ Anger ○ Frustration ○ Contentment ○ Delight ○ Disappointment

Knowledge

For each statement, choose a number that most closely reflects how you feel about your knowledge pertaining to plants.

How would you rate your knowledge about caring for flowering shrubs?

Very little			Average amount			Very much
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

In comparison to the average person, how would you rate your level of knowledge with flowering plants?

No prior plant knowledge			Average amount of knowledge			Large amount of knowledge
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Do you ever use the plant tag or signage for information about care instructions?
(If never, skip the following question and move to level of maintenance question.)

Never look at care instructions			Sometimes			Always look at care instructions
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

If you examined the tag, how would you rate the information contained on your plant's tag?

○ Tag did not contain enough information

○ Contained adequate information

○ Contained excessive information

○ Did not examine tag

What level of maintenance do you feel the indoor flowering potted plant required inside the home?

Low			Medium			High
○ 1	○ 2	○ 3	○ 4	○ 5	○ 6	○ 7

Are there any comments you would like to share regarding your indoor flowering potted plant from this spring or plans to buy new products next year?

Informational Questions/Demographics

This past spring and summer, how many hours per week did you spend in the garden?

Select

Approximately how much, in dollars, did you spend on outdoor lawn and garden products in 2003 (excluding the purchases of lawn and garden equipment)?

Select

On a scale of 1-7, in terms of gardening knowledge, how would your friends rate you?

Not experienced			Average			Very experienced
1	2	3	4	5	6	7

On a scale of 1-7, how would you rate your level of gardening enjoyment?

Not an enjoyable activity			Average			A very enjoyable activity
1	2	3	4	5	6	7

How much money did you spend, in dollars, on annuals in 2003? (plants that only last one season, for example marigolds or impatiens)

Select

In 2003, how much money did you spend, in dollars, on perennials? (plants that are supposed to come back year after year, for example, hosta or lavender)

Select

Do you own your own residence?

Yes No

Was this purchase:

Select

Are you male or female?

Male Female

In what year were you born?

Select

How many years of formal education have you completed?

Select

What was your household income in 2003?

Less than $25,000	$25,001-50,000	$50,001-75,000	$75,001-100,000	$100,001-125,000	$125,001-150,000	$150,001 or more

Including yourself, how many adults (age 18 or higher) live in your household?

Select

How many children (under 18) live in your household?

Select

What is the name of the retail store used to make this purchase?

What is your zip code?

Enter your email address. Since this is the address to which the honorarium will be sent, please make certain it is entered correctly. Your email will not be shared, and it will only be used to verify and return your honorarium.

EMAIL ADDRESS:

Appendix C

The University Committee on Research Involving Human Subjects approval form.

Research Title: Evaluating Consumer Perceptions of Flowering Potted Plants

MICHIGAN STATE
UNIVERSITY

June 25, 2004

TO: Bridget BEHE
A288 Plant & Soil Sci. Bldg
MSU

RE: **IRB # 03-366** CATEGORY: 1-2 EXEMPT
RENEWAL APPROVAL DATE: June 25, 2004
EXPIRATION DATE: June 25, 2005

TITLE: EVALUATING CONSUMER PERCEPTIONS OF FLOWERING POTTED PLANTS

The University Committee on Research Involving Human Subjects' (UCRIHS) review of this project is complete and I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the **UCRIHS APPROVED THIS PROJECT'S RENEWAL.**

Study Phase 2 revision to include a change to the study title and instruments.

RENEWALS: UCRIHS approval is valid until the expiration date listed above. Projects continuing beyond this date must be renewed with the renewal form. A maximum of four such expedited renewals are possible. Investigators wishing to continue a project beyond that time need to submit a 5-year renewal application for complete review.

REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please include a revision form with the renewal. To revise an approved protocol at any other time during the year, send your written request with an attached revision cover sheet to the UCRIHS Chair, requesting revised approval and referencing the project's IRB# and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.

PROBLEMS/CHANGES: Should either of the following arise during the course of the work, notify UCRIHS promptly: 1) problems (unexpected side effects, complaints, etc.) involving human subjects or 2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of further assistance, please contact us at 517 355-2180 or via email: UCRIHS@msu.edu.

Sincerely,

Peter Vasilenko, Ph.D.
UCRIHS Chair

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